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# A care-based approach to transformative change: ethically-informed practices, relational response-ability & emotional awareness

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## ABSTRACT

Notions of care for humans and more-than-humans appear at the margins of the sustainability transformations debate. This paper explores the merits of an ethics of care approach to sustainability transformations. It argues that more radical, transformative change can be fostered via three mutually reinforcing dimensions: (a) ethically informed practices; (b) relational response-ability; and (c) emotional awareness. This novel theoretical and methodological lens emphasizes the transformative potential of caring practices and as such extends the reach of the sustainability transformations debate.

## KEYWORDS

Care ethics; sustainability transformations; place-based practices; relational response-ability; emotional awareness

## 1. Introduction

There is widespread agreement amongst sustainability scientists that our current model of development needs substantial rethinking. For a long time, the dominant preoccupation has been impacted reduction and resource optimization. A mere focus on technological advancement as key ingredient of the recipe for change has perpetuated the status quo and validated the liberal capitalist mode of development at the origins of the current socio-ecological crisis (Puig De la Bellacasa, 2011; Scoones, 2016). In recent years, voices of critique have become stronger, and new narratives of more radical, transformative change have taken shape. In this expanding semantic spectrum, a language of care and biosphere interconnection is gradually claiming a space. As yet, however, the scholarship on care ethics is not very well considered in the sustainability transformations debate (Schildberg, 2014; UNRISD, 2016, p. 99).

Recently, we find ‘care talk’ being more or less overtly employed across disparate traditions and contexts of research and practice. Economic geographers Gibson-Graham propose to fundamentally rethink economic actions so that they can reflect care and responsibility for the ecosystem (Gibson-Graham, 2008). Prospects of a caring economy and a caring society increasingly inform the work of feminist economists, philosophers, and political scientists, who dismiss the neo-liberal understanding of human beings as ‘isolated individual utility maximizers’, and advocate for practices that regenerate the

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living basis of society, for current and future generations (Held, 2006; Schildberg, 2014, p. 4). A care language also features in the post-capitalist agendas of social movements such as De-growth<sup>1</sup> and in the philosophical design of permaculture and biodynamic practices.<sup>2</sup> Echo of a caring ecology also appears in Pope Francis' Encyclical letter 'Laudato si. Our care for our common home,' where the spiritual leader urges to commit to revolutionary acts for the future (Pope Francis, 2015).

Traditionally, notions of caring for the Earth and human-nature interdependence lie at the core of spiritual and philosophical traditions such as Buddhism and Hinduism, and of indigenous knowledges all around the world (Whyte & Cuomo, 2016). They have long informed various fields, such as ecofeminism, spiritual ecology, environmental ethics, and eco-theology, advocating for alternative ethical perspectives that would attend to relational interdependences between human and non-human communities (Spretnak, 1997; Warren, 2000). Although these are very heterogeneous fields of scholarship and practice, they all have in common a call to change the way we understand ourselves and our interaction with the Earth. The notion of interdependence is integral to established traditions, such as resilience scholarship (Olsson et al., 2014), deep ecology (Drengson & Devall, 2010) and system thinking (Capra & Luisi, 2014), affirming the need to reconnect with the biosphere, learning to see human and nature as a whole. However, when referring to relations of care, maintenance and restoration of natural resources, other terms are usually employed, such as 'ecosystem stewardship' or 'ecological citizenship' (Ack et al., 2001; Chan et al., 2016; N. M. Singh, 2015). There is also a tendency to frame moral issues in abstract, economic, and legalistic terms (Whyte & Cuomo, 2016), with only a few authors attempting to reveal their transformative potential.<sup>3</sup>

In this paper by way of response our concern is threefold. Firstly, we are concerned with grasping the basic tenets of the ethics of care, and understanding the innovative traits that seemingly makes it a promising approach in terms of 'care for the earth'. Secondly, we wish to explore if and why care matters to the dominant sustainability transformations debate. Thirdly, and most importantly, we seek to understand how care can contribute and enrich such debate, and what further horizons could be investigated to bridge care and transformative change scholarship. In addressing each of these points, we draw heavily from the literature on care ethics. To a lesser extent, we also consult disparate disciplines which have, in recent years, endorsed a rationality of care as a basis for informing our understanding of socio-ecological interactions. By considering the overtly debated 'sustainability transformations,' we identify both points of intersection and difference with care-informed understandings of change. Both care and sustainability transformations have an extended body of literature. Our aim is not to provide a complete overview of both, but to explore interconnections to bridge the two and advance the debate.

The paper proceeds as follows: in section two we begin by introducing the meaning and relevance of care, understood as both a set of moral values and a range of tangible practices. Briefly engaging with the sustainability transformations debate, we also highlight possible areas which could be critically informed by a care lens. Section three argues for a care-based approach to transformative change, encompassing three mutually enforcing dimensions: ethically informed practices, relational response-ability, and emotional awareness. Two major directions for further exploration of a care-based approach are then identified: (1) as an analytical perspective to further our understanding of

transformative change; (2) as a lens to invigorate action-oriented approaches in sustainability transformations research. The conclusion briefly highlights avenues for future research.

## 2. Care and Sustainability Transformations: An Unexplored Connection

### 2.1. Care: Ethos and Practice

The etymological roots of the word ‘care’ translate into two fundamental meanings: an active one of attentiveness, regard, consideration, and a passive meaning of worry, concern, and anxiety (Mancuso, 2015). We practice care, both in its active and passive forms on a daily basis. We are all, at some point in our lives, care-givers and care-receivers (Held, 2006; Tronto, 2013). Yet, historically, care has been relegated to the private sphere only, often taken for granted, devalued, and thus invisible (Puig De la Bellacasa, 2011). This is reflected also in the limited attention it has enjoyed in scholarly debate: ‘For a long time care figured in academia as a more or less tedious practical necessity, rather than as an intellectually interesting topic. Or worse: care hardly figured at all’ (Mol et al., 2010, p. 7). The trend has changed only recently, with care becoming the subject of nursing and medical studies first, and later of sociology, anthropology, geography, philosophy, and ethics debates (Mol et al., 2010). It is mainly due to feminist speculations that we have come to see a resurgence of care in such fields.

In parallel, we have witnessed an overlapping growth of interest in the ethics of care literature, which has found continuous application in a variety of different contexts (see, for example, Faden et al., 2013; Koggel & Orme, 2010). Sparked by the publication of ground breaking texts, including notably, ‘In a different voice’ by psychologist Carol Gilligan (1982), the ethics of care debate has been shaking the foundation of Western liberal tradition ever since. Important contributions came from Virginia Held, Nel Noddings, and Sara Ruddick, amongst others. These scholars opposed the mainstream notion of individuals as isolated and abstract entities. They proposed a new way of viewing the world, where human beings are fundamentally *relational* and *interdependent* members of a network of relationships on whose continuation they all depend (Gilligan, 1982; Held, 2006; Noddings, 2013). This paves the way to a new approach to morality, which calls into question the abstract rules of Western philosophical thinking, based on principles, reasoning, and ‘black and white’ judgment. Conversely, moral problems are to be approached as close as possible to concrete situations (Noddings, 2013). Thus, in contrast to consequentialist and deontological moral theories, favoring universality, individual rights, consequences, and justice, the ethics of care literature puts at the center the importance of context, interdependence, relationships, and responsibilities (Held, 2006; Koggel & Orme, 2010).

We contend that the message of interdependence and relationality intrinsic to the rationality of care is also extremely valuable when understanding how we come to ‘care for the earth.’ Nearly 30 years ago, Fischer and Tronto defined care as:

A species activity that includes everything we do to maintain, continue and repair our “world” so that we can live in it as well as possible. That world includes our bodies, ourselves and our environment, all of which we seek to interweave in a complex, life-sustaining web (Tronto, 2013, 19).

This definition offers an understanding of care clearly relevant for sustainability, framing humans as relational subjects capable of sustaining life in all its different forms. This is manifested in the dual nature of caring, which is both an ethical framework and a series of tangible practices (Held, 2006; Tronto, 2013). By endorsing a rationality of care, one embraces a new ontology of being in the world, accepting the notion that everything is relational, an approach increasingly dominant in the social sciences (Haraway, 2016; Horlings, 2015). At the level of the everyday, relationality and interdependence are manifested through contextual interactions in particular times and spaces, through which people construct new subjectivities and new ways of relating to both human and non-human worlds (N. M. Singh, 2015). Thus, a caring approach has implications with respect to both 'values' and 'practices'. Accordingly, several questions come to mind: how do people come to express their relational dependence with their living environment? What do they actively do? What motivates their desire to act to nurture the 'life-sustaining webs' of the worlds they live in? And how do they learn to care? We explore such dilemmas further below. We identify three main dimensions from a care lens: practices, responsibility, and emotions. We contend that all three are important points of inquiry; they offer much potential to enrich the current debate, while advancing the set of tools available to push forward a transformative research agenda.

## 2.2. Understanding the Sustainability Transformations Debate from a Care Lens

A growing number of researchers working in the sustainability field are, nowadays, concerned with issues of *transformation* and radical change (Moser, 2016; Olsson et al., 2014; Westley et al., 2011). For a long time the most popular topic had been sustainability *transition*, meaning gradual long-lasting processes, with a final aim of making the current systems of production and consumption more sustainable (Markard et al., 2012). In recent years, the term transformation has rapidly gained potency, triggering an abundance of continuously evolving research work.

The common denominator within the transformations literature is the idea that transformations are fundamental changes, opposed to minor, marginal or incremental ones (Feola, 2015). Approaches have developed in both diagnostic and prognostic directions: on the one hand, the literature offers analytical tools to understand the complex bundles of issues at stake with regards to the socio-ecological crisis; on the other hand, solution-oriented procedures and methods are being designed to successfully guide the changes envisioned in the realities studied (Feola, 2015). Action-research approaches have gained increased acceptance and prominence, with researchers nurturing activist orientations to push forward transformative change (Fazey et al., 2018; Moser, 2016).

Transformations are often approached within the framework of system models, conceptualized as complex and dynamic entities (Bai et al., 2016; Olsson et al., 2014). System thinking is hailed by its advocates as the most comprehensive approach to understand the mechanisms at stake, and to develop an integrated perspective on the future. Moreover, scholars seem to be particularly interested in issues of scale, arguing that transformations are multiphase and cross-scale processes (Abson et al., 2017; Olsson et al., 2014), encompassing individual (and his/her deeply held values and beliefs), collectives, and multi-level governance and management regimes (O'Brien & Sygna, 2013; Westley et al., 2011). Transformations are also described as contextual and diverse, linked to specific ecological,

economic, social, and cultural conditions (Abson et al., 2017; Bai et al., 2016). They often depend heavily on change agents, 'key humans' variously referred to as leaders, entrepreneurs, innovators, frontrunners, brokers, intermediates, and net weavers (Bai et al., 2016; F. Westley et al., 2011). Change agents are believed to develop new agendas for the future, thanks to their ability to mobilize networks, alliances, and coalitions to connect actors from different sectors and levels of the systemic bundle (Scoones, 2016).

Engagement of actors in and for transformations raises questions of power: radical change will only be possible if root causes of inequality and failures to address vulnerability will be exposed (Bai et al., 2016; O'Brien & Sygna, 2013; UNRISD, 2016). To address unequal structures of power and enhance local innovative capacities for change, the sustainability transformations literature increasingly advocates for co-production of knowledge (Fazey et al., 2018; Moser, 2016). That is, sustainability scholars are expected to engage stakeholders side-by-side in a process of iterative learning by means of participatory processes. While also being conducive to the gathering of data and information, such engagement is intended to empower participants. This includes, for example, creating the space and conditions to discuss expectations and normative positions concerning the future (Bai et al., 2016; Tschakert et al., 2016) or prompting learning histories and using social memory to connect and restore a sense of coherence (Franklin, 2018).

The transformations debate has also been fruitful in discussing 'how' research can contribute to transformative change through practical and action-oriented approaches (Fazey et al., 2018). Yet, we believe it would be further strengthened through greater internal acknowledgment of the relevance of additional perspectives currently only marginally considered. In substantiating this argument, we next present three dimensions for further exploration: firstly, the notion of relationality with both human and non-human worlds, and its everyday expression in caring practices enacted in places; secondly, a forward-looking understanding of responsibility which motivates potentially transformative practices; thirdly, the role of emotional awareness in constructing transformative agency, especially by nurturing the capacity for imagination.

### 3. The Potential of a Care-based Approach for Sustainability Transformations

#### 3.1. Enacting Ethical Creativity in Places: The Role of Caring Practices

Through practices, people construct their identity and their relational life in ways that are situated, unique, and embodied – characteristics that are hardly measurable through reductionist forms of sustainable development assessment. As a consequence, some sustainability scholars deem practices unsuitable for generalizations and thus incapable to prescribe societal processes (Rauschmayer et al., 2015). Conversely, we argue that by employing a care lens, practices become tangible and salient accounts of *how* transformations can be enacted in various realities. Their situational and contextual nature is thus an added value rather than a flaw.

Indigenous knowledge, revived in ecofeminist literature, has long framed care as the practice of recognizing and learning from one's place, being embedded in a web of diverse relationships (Warren, 2000). Indeed, as the care ethics literature suggests, caring practices can be a *tangible manifestation of interdependence* and nature connectedness through everyday doings in particular places (Puig De la Bellacasa, 2010; Tschakert & St.

Clair, 2013). 'Caring expresses ethically significant ways in which we matter to each other, transforming interpersonal relatedness into something beyond ontological necessity or brute survival' (Wells & Gradwell, 2001, p. 111). This is manifested, for example, in several alternative farming practices which place care at the center of their doings. A study of a Community Supported Agriculture (CSA) scheme in Northern Scotland, for example, shows how participants nurture multiple forms of care at the same time: with regards to land and natural resources, by encouraging native species; toward people, by providing healthy food and educational opportunities; to the community, by fostering social connections; toward place, by helping people to reconnect to the land; and toward the future, by modeling a community-based alternative food system (Wells & Gradwell, 2001). From this perspective, practices become sites of 'ethical creativity' (Leys, 2011), making evident the political potential of everyday actions, and the ethical dimension that connects the personal to the collective and drives everyday decisions of how places should be shaped.

Another powerful example, within a food and farming context, is permaculture. Permaculture recognizes interdependency in all forms of life and is based on attentive observations of the rhythms of nature to design harmonious practices in line with the needs of a place, a land, and a community (Puig De la Bellacasa, 2010). Here, humans become participants in ecosystem's wellbeing, and not just passive recipients of its gifts (Kimmerer, 2014). Through care work and caring practices grounded in places, communities may choose to re-learn to follow nature's patterns and its cyclical evolution and co-evolve with it. Doing so, they refuse the time of techno-scientific efficiency and progress – internalized after decades of intensive farming – and contribute to socio-ecological regeneration, by restoring both social and natural resources (Du Plessis & Brandon, 2015).

A second transformative potential of ethically informed caring practices is their *experimental and iterative nature*. Care work becomes better when it is based on relations created through intensified involvement and knowledge (Noddings, 2013; Puig De la Bellacasa, 2010). There is no good care once and for all: practices should be based on the accommodation of specific individuals and circumstances, through 'practical tinkering' and 'attentive experimentation' (Mol et al., 2010). Offering the chance to *do things differently*, to do them better, this creates the conditions for transformative learning. N. Singh (2017) illustrates this long-standing learning process through the example of *thengapalli*, a local system used to share forest patrolling labor in Odisha, India. The relationship between communities and forest is constructed over time, through renewed attention and attunement: 'Through the daily patrolling trips for *thengapalli*, villagers come to know the forest intimately and learn to respond affectively to its needs for care' (N. Singh, 2017, p. 756). 'Paying attention' has two ethical connotations here: it is a practical necessity to become responsive to ecosystem health, both in times of plenty and in times of scarcity; it is also a spiritual act of reciprocity and gratitude toward nature (Kimmerer, 2014).

A third point in need of further exploration is the potential of caring practices as *sites of empowerment*. Caring practices can be productively understood as interactivities involving a certain type of attentive communicative contact, located *between* subjects, shaped by both care-givers and care-receivers. The possibility for change lies in this interaction, where people might decide to act differently, to act 'better', or to counteract bad practice (Mol et al., 2010). To enable learning experiences with a transformative potential, both sides of the spectrum must be given a voice: this requires re-framing relations of power,



including through a focus on skills and capabilities, reciprocity and inclusive deliberation, always recognizing the dignity and agency of all those involved (Barnes, 2008). In the case of non-human beings, mutuality and interdependence can be practiced by exploring with curiosity the needs and rhythm of others, refusing objectification and domination (Puig De la Bellacasa, 2011; Spretnak, 1997). Empirical studies of place-based experiential learning provide notable examples of how individuals engaging in deep and close observation of non-human beings, realized first-hand how natural elements are not static objects, but have agency of their own. Such practicing of relationality provides a sense of groundedness and inspiration that allows for a change of paradigm, recognizing nature as sentient and communicative (Goralnik & Nelson, 2017; Harmin et al., 2017).

### **3.2. Restoring Relational Response-ability: A Pro-active Commitment Toward the Future**

As elaborated above, contextual, attentive dynamics rooted in caring practices can sharpen our ability to respond, to be responsible. In Kimmerer's words (2014), 'Attention becomes intention, which coalesces itself to action.' According to the ethics of care, relational responsibility is a crucial condition to build transformative capacity. This has highly relevant implications when exploring the inner dimensions of change,<sup>4</sup> and the values underlying the motivations to act. From a care lens, responsibility stems from the recognition of humans' foundational vulnerability and interdependence – a radically different view from modern philosophy's dominant understanding of responsibility, dating back to Hobbes and Weber. For centuries we have conceived of responsibility mainly as a legal deed, as the ex-post facto account for what has been done: to be a responsible citizen meant to be accountable and *responsive for* one's own behaviors and its consequences (Pulcini, 2009). As a result, today, we often perceive our relation to nature and the environment in terms of ex-post accountability: when asked to engage in eco-friendly behaviors and practices as a trade-off for decades of exploitative use of resources; when held to account for breaking environmental rules (e.g., environmental liability); when experiencing guilt for the ecological destruction we have created (Haraway, 2016).

Understanding responsibility as ex-post accountability has manifold implications. Most notably: conservation challenges and environmental protection are often framed as a burden, leading to lost opportunities in terms of land-use and thus in need of being offset by financial incentives (N. M. Singh, 2015); citizens may perceive everyday civic sustainable actions, such as household waste recycling, as either constraining obligations, or petty actions with insignificant impact on the fate of the planet (or indeed both; Moore, 2017); nations tend to resort to a narrative of 'common but differentiated responsibilities' as a diplomatic weapon in geo-political global negotiations, with no substantial commitment to temperature rise reduction (Cuomo, 2011). Furthermore, playing on responsibility and guilt may place the entire burden of caring on the individual, dismissing structural questions of power inequality and resource distribution (Tronto, 2013). Climate change mitigation and adaptation efforts provide a striking example of the latter, often contributing to exacerbate existing vulnerabilities to the climate crisis (Moriggi, 2017). Against this background, it is unsurprising if at individual, collective, and supra-national level, the result is a continuation of ineffective action, or inaction all together (Moore, 2017).



Along with ex-post accountability, another powerful archetype of responsibility is represented by relationships of kin and affection. Here, being capable of responsible care is often understood as a function of love toward intimate others. Historically, women have been disproportionately responsible for care work in the family, with caring coming to have strong gender attributions, almost exclusively limited to the private and feminine dimension, best epitomized in the saying ‘tough guys don’t care’ (Held, 2006; Tronto, 2013).

From an ethics of care perspective, it is ineffective to ground responsibility and care mainly on the aforementioned terms – accountability and love. The literature suggests that a mindset shift is needed, whereby we conceive of responsibility not as a subjective concept, but rather, a relational one that stems from the realization of vulnerability and interdependence (Mancuso, 2015; Puig De la Bellacasa, 2010; Warren, 2000). This has transformative potential in two senses: first, it allows us to nurture an orientation to care for distant and potentially unknown others; not only for those in our family or close circles. Recognizing mutuality with other beings activates the capacity to ‘care *about*’, an internal state of readiness, a commitment to the *possibility* of caring for strangers or distant others, which precedes the actual practice of caring (‘care *for*’) (Noddings, 2013). Secondly, a relational approach frames responsibility not in terms of what has been done, but rather on what *can* be done, as a proactive commitment toward the future. Following Haraway’s (2016) notion of ‘response-ability’, this involves the capacity to not just *answer for* our actions, but *respond to* something or somebody from the socio-ecological environment in which we are embedded. Such ability for responsiveness is not motivated by legal obligation, nor is rooted in relationships of blood. Rather, it comes from multiple practices of relationality: the more we engage in attentive relationships, the more we feel the need to care *about* and *for* others (Tronto, 2013). Our responsible trajectories are shaped and negotiated over and over, through connection to places and engagement in social relations, as crucial manifestations of both our ethical creativity and our identity. Singh’s study of community-based conservation efforts in India (see above), offers an articulated empirical case of the latter. She argues that through the daily practices of caring for the forest, commoners transform both their natural landscapes and their individual and collective subjectivities, in a process of co-becoming (N. M. Singh, 2015; N. Singh, 2017). Thus, acting responsibly can also be an opportunity for deliberation and self-expression, to nurture one sense of self and of community through caring and regenerative practices (Haraway, 2016). Affective and spiritual approaches to the study of ecosystems have long argued that a reciprocal relation to other living beings brings comfort, fulfillment, and strength. Refusing hierarchical, dualistic, and instrumental relationships, when acting responsibly, does not stem from a restraining moral dogma. It is rather a path to live fully, to thrive as humans celebrating our place in the more-than-human world (Kimmerer, 2014).

### **3.3. Enabling Transformative Agency: Nurturing Emotional Awareness**

This section engages with emotional awareness and its role in fueling individual and collective capacity for imagination. The ability of crystalizing a vision, of projecting oneself into the future and imagining possible pathways of action is a crucial trait of change agency. Sustainability transformations literature mainly understands change agents as leaders, capable of inspirational discourses, who create common ground for building trust and cooperation between actors with different interests, mobilizing resources to realize the aims envisioned (Westley et al., 2011). We contend that for agency to be transformative,

imagination and moral sentiments should also be actively nurtured. For Amartya Sen and Martha Nussbaum imagination is one of the ten central capabilities for a good life – along with creativity and intuition it allows us to deal with uncertainty and take the future in our hands.<sup>5</sup> As posited by Pulcini: ‘Fitting our imagination to our deeds gives rise to a creative process which is set free by a renewed faith in the possibility of newness, of change, of a transformation of the present’ (2010, p. 458). In environmental decision-making circles nowadays, imagination is a cognitive-emotional skill hardly engaged with; thus, its creative potential to inform socio-ecological transformations remains untapped (Galafassi, 2018).

From a care lens, transformative imagination goes hand-in-hand with emotional awareness. Only relatively recently have the humanities and social (sustainability) sciences turned to emotions and affective resources as potential triggers for change agency (Leys, 2011; Moriggi, 2019). Affective resources are not only everyday experiences of feelings such as anger, joy, fear, but also, sentiments such as hope, capable of orienting one’s self toward the future. Emotions are paramount to enable cognitive shifts in the way people understand issues at stake (Lakoff & Johnson, 2003). Ethics of care scholars describe emotional awareness as it if were a compass of morality, which helps to interpret and ascertain what is right and wrong (Held, 2006). Moreover, emotions are deeply embedded in our values and thus might provide a strong motivation for action in both the short and long term (Barnes, 2008). An articulated understanding of emotions, however, is still marginal in the recent debate on sustainability transformations. Even when discussed, there is an apparent gap in developing practices that engage emotions in the context of radical change, including sentiments like ambiguity and fear (Galafassi, 2018; Moore, 2017). This is reflective in part of a general trend in contemporary society for perpetuating the long-standing dichotomy between emotion and reason. The latter is perceived as crucial to defining us as functioning humans able to make decisions. In direct contrast, emotions have long been fenced and hidden in our public social relations, propagated by the belief that to be professional requires being emotionally restrained (Held, 2006). Similarly, in the name of intellectual rigor and neutrality, emotions have long been considered alien to much research.<sup>6</sup>

As a consequence, our societies are now faced with ‘emotional ignorance,’ a gap between knowing and feeling (Mancuso, 2015), which has great implications for transformative change. As posited by Pulcini (2009, drawing from Hans Jonas), with advancements in science and technology and phenomena of globalization, today humans can not only transform nature but also create it, disrupting evolutionary laws and posing immense threats to the ecosystems. Yet, while rational knowledge and productive capacity develop at extreme and frantic levels, the ‘emotional founded awareness’ about the long-term consequences of such acts, does not mature at the same pace (Pulcini, 2010). The split between knowing and feelings hinders human’s ability to perceive the size and destructive potential of impelling risks (Pulcini, 2009).

Focusing only on knowledge-based campaigns and techno-scientific solutions as the main approach to virtuous change has had disappointing effects, most notably with climate change. As noted by Hamilton (2017): ‘Most citizens ignore or downplay the warnings; many of our intellectuals indulge in wishful thinking; and some influential voices declare that nothing at all is happening, that the scientists are deceiving us’. On the other hand, the inability to couple rational wisdom and proven facts with ‘emotionally-sensed knowledge’ (Hubbard et al., 2001) has resulted in emotions being co-opted and instrumentalized by

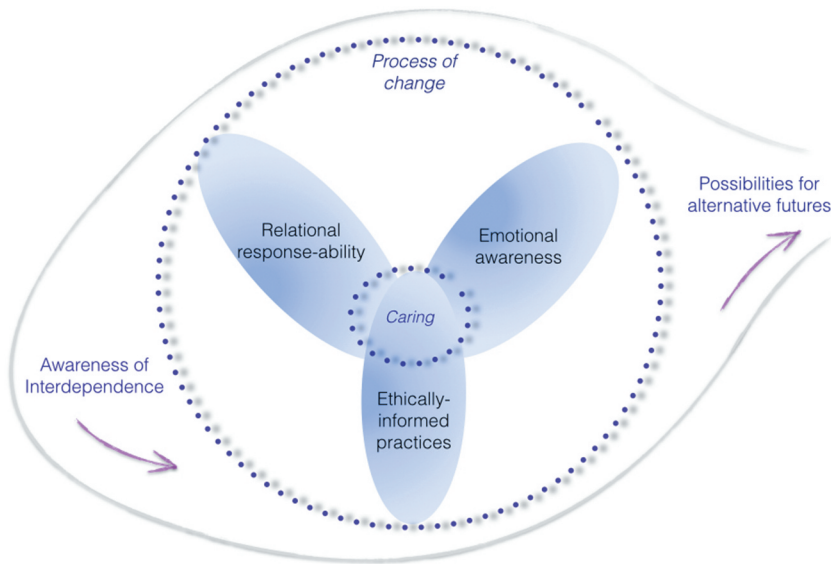
interest groups, that construct compelling narratives that appeal to fear, repulsion, and anxiety. Such narratives are characterized by a willful blindness to evidence and a mistrust in authoritative science (Laybats & Tredinnick, 2016).

For many in the field of sustainability, negative emotions are mere sources of anxiety and powerlessness. An effective leader, for Robinson and Cole (2015), is capable of 'inspiring hope *against* fear' (p. 137, emphasis added). From a care lens, both 'positive' emotions, such as joy and hope, and 'negative' ones, such as fear and grief, can be conducive to virtuous change (Held, 2006). This is not to say that the future should be cast in terms of alarm and pessimism: fear *of* can indeed lead to paranoia, denial, resistance, inaction. However, fear might activate a totally different set of attitudes and behavior if it is framed in terms of *fear for*, a productive fear that allows humans to connect to the world with empathy, and to feel the urge to protect it and care *for* it in transformative ways (Pulcini, 2009). Similarly, for philosopher Donna Haraway, grief is something we must learn to do, in different ways, but together, to form richer, deeper relationships with our peers, our communities, and the world around us. Her book 'Staying with the trouble' is a testament to new ways of being in combination and collaboration with other species, learning to live and die with each other (Haraway, 2016). Expanding our ways of knowing to include also affective, emotional, and esthetic dimensions implies the capacity to 'see with fresh eyes', listen with 'respectful years', and, as a consequence, to regain a sense of wonder, appreciating Earth's beauty but also its suffering (Kimmerer, 2014; Moore, 2017). From a care lens, to sense sympathetically is thus a moral virtue and the foundation for a new ethics of the future. Even sentiments like fear and anger, when properly acknowledged and elaborated, can be translated into tangible emancipatory actions from current deadlocks, and turned into compassion and hope for alternative possibilities (Pulcini, 2009).

### ***3.4. Practices, Responsibility, and Emotions Seen from a Care Lens: Novelties and Interlinkages of a Multi-dimensional Approach***

Drawing from the literature on care ethics, the preceding sections of this paper have discerned and explored three dimensions of care, namely ethically informed practices, relational response-ability, and emotional awareness. Although the three dimensions explored in the paper can be approached as analytically distinct (including as they have thus far largely been presented here), they are also interlinked. These interlinkages form the focus of [Figure 1](#) below.

The figure is intentionally represented with the shape of an eye, as a visual metaphor of 'attentiveness', the foundational aspects of caring often mentioned in this paper. At the bottom edge of the eye lies awareness of interdependence, the necessary pre-conditions for caring. The latter is manifested as an ongoing process of change, best represented by a constantly evolving whirl, composed of three mutually reinforcing dimensions. Through ethically informed practices, people not only come to express their interdependence with the living environment but also contribute toward sustaining and possibly regenerating the living webs of the places they inhabit. Such caring practices are ideally motivated by a feeling of relational response-ability, grounded in the awareness of humans' foundational vulnerability, and driven by a pro-active commitment toward the future. Caring practices and relational response-ability at the same time reinforce and are fueled by emotional awareness. Connecting to the inner sources of passion, joy, despair, and other moral sentiments, further enhances the consciousness regarding our condition of interdependence, while nourishing the desire to imagine alternative



**Figure 1.** A care-based approach to transformative change: ethically informed practices, relational response-ability & emotional awareness.

tomorrows. Thus, interdependence is not just attained through rational awareness, but it is also felt and embodied. Understood holistically, learning to care is the result of manifold dynamics, where the material, cognitive, emotional and moral reconnection of humans and more-than-human all contribute to effective action in the present toward better futures. From a systemic point of view, the three components of the spiral can also be seen as points of intervention, that, when triggered, allow change to happen and new spaces of possibilities to emerge.

## 4. Discussion

### 4.1. Implications of a Care Approach for Transformative Research Theory

Due to its holistic and dynamic character, we elect to emphasize here the power of a care approach at the meta-level, and distill three main teachings that can serve as analytical perspectives to enrich the current debate on *what points of focus* should be at the heart of sustainability transformations.

Firstly, the ethics of care literature confirms and provides substance to the fundamental importance of values and worldviews in fostering radical change. As system thinker Donella Meadows suggested decades ago, the power to transcend paradigms is the deepest and most effective leverage point where interventions should take place (Abson et al., 2017). From a care perspective, little can be done in this sense through investments in new technologies, ideas, or data production. Rather, ‘we need a change in heart’ (Kimmerer, 2014, p. 22), a deeply personal shift in worldviews that is both material and ethical. Each of the three dimensions explored in this paper, offer novel insights into how the subjective ‘work’ of sustainability comes into place (Horlings, 2015).

Secondly, the ethics of care reminds us that the way we address sustainability and change as scientists and decision-makers cannot be morally neutral. We need an ethical, 'action-guiding' realignment in both diagnostic and prognostic approaches to transformation. Space and time should be created to bring morality at the core of scientific discussions, to engage in local and global conversations about shared visions, values, and desires, and how that can be translated into action (Moore, 2017).

Thirdly, such realignment cannot simply rely on the morally loaded concepts that have informed our knowledge construction so far. These, as explored above, are partially responsible for the ecological and social crisis we are facing today (Warren, 2000). Complementary moralities should inform a new understanding of ourselves and our realities, if real transformation is to take place. Founding transformational change on care ethics and practices allows a mindset shift in the way we understand ourselves and our relationship with the earth, moving from an ego- and anthropo-centric to an eco-centric worldview. The latter understands humans as co-evolving with the social-ecological system of which they are part, supporting its wellbeing and enhancing its resources, in line with a regenerative paradigm (Du Plessis & Brandon, 2015).

Our approach may also be viewed as a contribution to the debate on the role of the different dimensions, or 'pillars' of sustainability: ecological, economic, social, and (more recently) cultural. Pillar thinking has dominated the sustainability literature for decades and is still often used as a basic conceptualization, especially in policy realms and among practitioners. For a long time, the pillars have been informed by phenomena that could be observed and measured against criteria and indicators. All too often this has led to partial or total dismissal of less quantifiable dimensions, often related to social and cultural aspects of sustainability (Soini & Dessein, 2016). In particular, the findings in this paper reaffirm the importance of a fourth, cultural, dimension. A cultural dimension encompasses, but also extends beyond, the role of arts and heritage, to include the role of values, mind sets and beliefs in shaping transformative change.

#### ***4.2. Implications of a Care Approach for Transformative Research Practice***

Introducing a care lens to transformations scholarship can also inform and reinforce the debate on *how* – the ways in which research can operationally and methodologically be both site and driver of transformation. We take the opportunity here to transpose the elements of novelty explored – through the three components of caring practices, response-ability, and emotions – into relevant applications for transformative research. We reference a number of epistemological and methodological approaches to empirical work where such caring principles are already in place, and yet, often not overtly acknowledged. We refer to participatory approaches to social appraisal, and in particular, Participatory Action Research (PAR), but also to arts-based inquiry, sustainability pedagogy, and contemplative practice. These fields aim at not only advancing scientific understanding but also contributing in an active manner to change and empowerment for those involved. Transdisciplinary research that aims at transformative knowledge co-production offers a fertile terrain for such empirical applications to be tested.

The first component of a care-based approach to transformative change is ethically informed practices. These are underlined by (a) attentive engagement to context and its interdependencies; (b) willingness to experiment; (c) tension toward empowerment. With regards to (a), we see a growing orientation for contextually relevant solution-oriented research emerging amongst scholars and practitioners. This implies moving from the

traditional obsession with 'best practices' (in both policy and scholarly realms), to a heuristics of difference rather than dominance, and to an analytical appreciation of the possibilities created *with* and *for* tangible others (Gibson-Graham, 2008). Specific examples can be found in PAR approaches. An example is the use of participatory drama in coastal Southeast Kenya, to explore people's resilience to extreme weather events in the face of climate change. There, through a place-based and context-specific approach, the process of academic inquiry co-evolved along the emergence of themes through the performances enacted (Brown et al., 2017). Attentive engagement to the complexity and interdependencies of a specific context can also be practiced through 'epistemological stretching', integrating the embodied, the spiritual, and the intuitive as alternative ways of knowing (see, for example, Harmin et al., 2017).

Willingness to experiment (b) is another transformative element of caring practices. Likewise, research that aims to be transformative must somehow come to terms with the need to embrace playful experimentation and iterative learning as essential factors (Fazey et al., 2018). PAR projects like the that of Brown et al. (see above) are a good example where process is given priority over outcome, embracing challenges such as uncertainty and failure, and striving to do things 'better' through renewed adjustments and tinkering. Capacity to deal with uncertainty and non-linear change is also found in science-fiction approaches to scenario building (see, for example, Merrie et al., 2018). As far as learning to deal with failure is concerned, contemplative practice (employing techniques such as meditation, yoga, and journaling) can help to elaborate let downs and disappointments implicit in social change work (Kaufman, 2017).

Empowerment, the third characteristic of ethical-informed practices, can be best achieved through suitable tools that facilitate communication and deliberation of the participants involved. Storytelling, dismissed for too long on the basis of providing only anecdotal evidence, is now increasingly called upon as powerful communication tool (Moser, 2016; Pearson et al., 2018). Together with other creative approaches, storytelling can widen the spectrum of speeches considered appropriate in deliberation arenas, and thus give a voice to previously marginalized groups, understanding their experiences and not just translating them by speaking on their behalf (Barnes, 2008). Foster (2016), for example, describes the power of stories in giving voice to previously silenced groups (e.g., indigenous communities), in forming common conceptual repertoires, and in finding sense and order through complexity. Applied to experiential learning, storytelling can support students to reclaim their voices and their affective engagement to nature, while developing their ability to relate critically with the course literature (Goralnik & Nelson, 2017).

The second transformative component of a care-based approach to transformative change is response-ability. In PAR, being *able to respond* to the needs of communities requires designing and adapting methods in line with participants' capabilities and expectations. Integral to doing so, is the employment of creative, interactive and empathic techniques, such as participatory video-making and photo-voice (Franklin, 2018; Moriggi et al., 2020). The concept of response-ability can also inform the idea of research as a performative act, dismissing detachment and neutrality, in favor of a subjective commitment to change. In embracing performativity, scientists accept that knowledge is never given, but rather is always 'becoming'. Foster (see above) describes the practice of spirituality integrated in arts-based inquiry as a way of 'being present – in the moment – and also open to what is not yet known' (2016, p. 129). If transformation is about change from the inside out, researchers are called to intentionality and

conviction, embodying the values they preach in profound and significant ways (Horlings et al., 2020). Our own willingness to 'dig in, to develop meaning, make connections, be honest and vulnerable, and seek growth' (Goralnik & Nelson, 2017, p. 15) is as important in transformational research as the content of what we investigate.

Finally, the third dimension of our proposed approach to care is emotional awareness and its role in providing the humus to discuss and facilitate alternative visions for distant others (Pearson et al., 2018). Here transformative research can harness the potential to bridge cognitive, emotional, and moral dimensions, by facilitating spaces of encounter and 'freedom to feel'. Galafassi (2018) describes with empirical evidence the power of arts-based initiatives to address emotions like hopelessness, sadness, loss, grief, and trauma, brought about by climate change (see also Foster, 2016). Such 'spaces of feeling' are also needed within research teams and networks, not only to integrate emotionally sensed knowledge into the research process but also to enhance individual and collective coping capacities. Indeed, impact-oriented work requires an extensive emotional labor, which often goes unrecognized, and lacks support at institutional levels (Foster, 2016; Hubbard et al., 2001).

## 5. Conclusion

In this paper, we have argued that a care-based approach to transformative change is inherently complementary to the sustainability transformations debate. However, a care lens is still insufficiently called upon in sustainability sciences. We identified three inter-linked and mutually enforcing dimensions that can inform the way we conceive of and push forward sustainability transformations: ethically informed practices, relational response-ability, and emotional awareness. Each dimension provides valuable insights to grasp relationality and caring for the Earth in radical transformational ways. The framework offers a novel analytical perspective regarding the inner dimension of transformative change. We concluded the discussion by highlighting a set of epistemological and methodological approaches, inspired by care ethics and practices, which can further reinforce participatory work on the ground that aims to shape sustainable futures.

Future studies could critically examine the ways in which care talk and care practice can be a vehicle of transformation. Integral to doing so is the need to bring more in-depth empirical accounts of practices of caring for both human and more-than-human, at the place-based level, but also by critically assessing how universities and research institutes can be *loci* of transformative caring research practice. Moreover, attention should be given to the role of the institutions and the collective in scaling up relational responsibility and endorsing both the burdens and joy of care work. The risk, indeed, when discussing the inner dimension of change, is to place considerable attention on the role of the individual, ignoring in so doing structural issues of justice and conditions of inequality. Finally, the framework presented can also be applied to further explore ways in which care offers a rupture with existing discourses, favoring alternative narratives celebrating a relational view of life on Earth.

## Notes

1. See <https://vocabulary.degrowth.org/>
2. See <https://permacultureprinciples.com/ethics/>



3. Most notably, we refer to Tschakert and St.Clair (2013) and their attempt to identify conditions of transformative change, looking at responsibility, care and place-making in climate change research.
4. With inner dimension of change we refer to the so-called 'change from the inside-out' (O'Brien & Sygna, 2013). The latter refers to the personal repertoire of mind-sets, emotions, values, feelings, which are increasingly considered vital determinants of any transformational change to sustainability (Horlings, 2015).
5. See, for instance, <https://plato.stanford.edu/entries/capability-approach/>
6. Exceptions naturally exist, notably in certain feminist approaches, in arts-based research, and sustainability pedagogy. Yet, for the most part, emotions are not sufficiently integrated in the lab room, and in the research team's co-creation and decision-making processes; similarly, they are only marginally considered in methodological and analytical processes, carrying the risk of producing knowledge labeled as 'subjective', with subjective through this reading being irrational, soft, unscientific and out of control (Hubbard et al., 2001).

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## References

- Abson, D. J., Fischer, J., Leventon, J., Newig, J., Schomerus, T., Vilsmaier, U., von Wehrden, H., Abernethy, P., Ives, C. D., Jager, N. W., & Lang, D. J. (2017). Leverage points for sustainability transformation. *Ambio*, 46(1), 30–39. <https://doi.org/10.1007/s13280-016-0800-y>
- Ack, B. L., Daly, C., Everett, Y., Mendoza, J., Mitsos, M., Ack, B. L., & Ochs, R. (2001). The practice of stewardship: Caring for and healing ecosystems and communities. *Journal of Sustainable Forestry*, 12(3–4), 117–141. [https://doi.org/10.1300/J091v12n03\\_06](https://doi.org/10.1300/J091v12n03_06)
- Bai, X., Van Der Leeuw, S., O' Brien, K., Berkhout, F., Biermann, F., Brondizio, E. S., Cudennec, C., Dearing, J., Duraipappah, A., Glaser, M., Revkin, A., Steffen, W., & Syvitski, J. (2016). Plausible and desirable futures in the Anthropocene: A new research agenda. *Global Environmental Change*, 39, 351–362. <https://doi.org/10.1016/j.gloenvcha.2015.09.017>
- Barnes, M. (2008). Passionate participation: Emotional experiences and expressions in deliberative forums. *Critical Social Policy*, 28(4), 461–481. <https://doi.org/10.1177/0261018308095280>
- Brown, K., Eernstman, N., Huke, A. R., & Reding, N. (2017). The drama of resilience: Learning, doing, and sharing for sustainability. *Ecology and Society*, 22(2), 2. <https://doi.org/10.5751/ES-09145-220208>
- Capra, F., & Luisi, P. L. (2014). *The systems view of life. A unifying vision*. Cambridge University Press.
- Chan, K. M. A., Balvanera, P., Benessaiah, K., Chapman, M., Diaz, S., Gómez-Baggethun, E., Gould, R., Hannahs, N., Jax, K., Klain, S., Luck, G. W., Martín-López, B., Muraca, B., & Turner, N. (2016). Why protect nature? Rethinking values and the environment. *PNAS*, 113(6), 1462–1465. <https://doi.org/10.1073/pnas.1525002113>
- Cuomo, C. J. (2011). Climate change, vulnerability, and responsibility. *Hypatia*, 26(4), 690–714. <https://doi.org/10.1111/j.1527-2001.2011.01220.x>
- Drengson, A., & Devall, B. (Eds.). (2010). *The ecology of wisdom: Writings by Arne Naess*. Counterpoint Press.
- Du Plessis, C., & Brandon, P. (2015). An ecological worldview as basis for a regenerative sustainability paradigm for the built environment. *Journal of Cleaner Production*, 109, 53–61. <https://doi.org/10.1016/j.jclepro.2014.09.098>
- Faden, R. R., Kass, N. E., Goodman, S. N., Pronovost, P., Tunis, S., & Beauchamp, T. L. (2013). An ethics framework for a learning health care system: A departure from traditional research ethics and clinical ethics. *Ethical Oversight of Learning Health Care Systems, Hasting Center Report Special Report*, 43(1), S16–S27. <https://doi.org/10.1002/hast.134>
- Fazey, I., Schöpke, N., Caniglia, G., Patterson, J., Hultman, J., van Mierlo, B., Säwe, F., Wiek, A., Wittmayer, J., Aldunce, P., Al Waer, H., Battacharya, N., Bradbury, H., Carmen, E., Colvin, J., Cvitanovic, C., D'Souza, M., Gopel, M., Goldstein, B., Harper, G., & Wyborn, C. (2018). Ten essentials for action-oriented and second order energy transitions, transformations and climate change research. *Energy Research & Social Science*, 40, 54–70. <https://doi.org/10.1016/j.erss.2017.11.026>
- Feola, G. (2015). Societal transformation in response to global environmental change: A review of emerging concepts. *Ambio*, 44(5), 376–390. <https://doi.org/10.1007/s13280-014-0582-z>
- Foster, V. (2016). *Collaborative Arts-based research for social justice*. Routledge.
- Franklin, A. (2018). Spacing natures: Resourceful and resilient community environmental practice. In: T. Marsden (Ed.), *The SAGE Handbook of nature* (pp. 267–285). SAGE Publications Ltd.
- Galafassi, D. (2018). *The transformative imagination: Re-imagining the world towards sustainability*. Stockholm University.
- Gibson-Graham, J. K. (2008). Diverse economies: Performative practices for “other worlds”. *Progress in Human Geography*, 32(5), 613–632. <https://doi.org/10.1177/0309132508090821>
- Gilligan, C. (1982). *In a different voice. Psychological theory and women's development*. Harvard University Press.
- Goralnik, L., & Nelson, M. P. (2017). Field philosophy: Environmental learning and moral development in Isle Royale National Park. *Environmental Education Research*, 23(5), 687–707. <https://doi.org/10.1080/13504622.2015.1074661>
- Hamilton, C. (2017). The great climate silence: We are on the edge of the abyss but we ignore it. *The Guardian*. <https://www.theguardian.com/environment/2017/may/05/the-great-climate-silence-we-are-on-the-edge-of-the-abyss-but-we-ignore-it>

- Haraway, D. (2016). *Staying with the trouble: Making Kin in the Chthulucene*. Duke University Press.
- Harmin, M., Barrett, M. J., & Hoessler, C. (2017). Stretching the boundaries of transformative sustainability learning: On the importance of decolonizing ways of knowing and relations with the more-than-human. *Environmental Education Research*, 23(10), 1489–1500. <https://doi.org/10.1080/13504622.2016.1263279>
- Held, V. (2006). *The ethics of care: Personal, political, and global*. Oxford University Press.
- Horlings, L. G. (2015). The inner dimension of sustainability: Personal and cultural values. *Current Opinion in Environmental Sustainability*, 14, 163–169. <https://doi.org/10.1016/j.cosust.2015.06.006>
- Horlings, L. G., Nieto-Romero, M., Pisters, S., & Soini, K. (2020). Operationalising transformative sustainability science through place-based research: The role of researchers. *Sustainability Science*, 15(2), 467–484. <https://doi.org/10.1007/s11625-019-00757-x>
- Hubbard, G., Backett-Milburn, K., & Kemmer, D. (2001). Working with emotion: Issues for the researcher in fieldwork and teamwork. *International Journal of Social Research Methodology*, 4(2), 119–137. <https://doi.org/10.1080/13645570116992>
- Kaufman, P. (2017). Critical contemplative pedagogy. *Radical Pedagogy*, 14(1), 1–20. [https://d1wqtxts1xzle7.cloudfront.net/51532931/Kaufman\\_-\\_Critical\\_Contemplative\\_Pedagogy.pdf?1485556657=&response-content-disposition=inline%3B+filename%3DCritical\\_Contemplative\\_Pedagogy.pdf&Expires=1606757859&Signature=gCs0MEGd4mvhAa48Q8~FsD0jYWhW30TPy2qhCAc7lwDlm4FrCVwSHFGm5Oqp~dy4WPThMxkAqJk8UET~dhQ~DI64xAc4Wj9wGOT~EcJxPUkPh9Nhy~bejCin~ortFUJjvHo8Bq~RGWiGliATKmMYm5KgTFdvtZ9MmCkD75w1WXVMYENC~QlwXmXuK0k7MDmOaZL3m5b7JypEWIoxlz15KOcKSsC87Pw4uEGlJ305Ym8~jJ6yYNQ-fbGdcoG2KvmbmdOsdoVz6Zl7JHrBL3L5CFsWWIVfnwhvMxmxdl0avy68nPI07GyAkUwYp7vQKFrUR7vuFqf53v24NrYuBLw\\_\\_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA](https://d1wqtxts1xzle7.cloudfront.net/51532931/Kaufman_-_Critical_Contemplative_Pedagogy.pdf?1485556657=&response-content-disposition=inline%3B+filename%3DCritical_Contemplative_Pedagogy.pdf&Expires=1606757859&Signature=gCs0MEGd4mvhAa48Q8~FsD0jYWhW30TPy2qhCAc7lwDlm4FrCVwSHFGm5Oqp~dy4WPThMxkAqJk8UET~dhQ~DI64xAc4Wj9wGOT~EcJxPUkPh9Nhy~bejCin~ortFUJjvHo8Bq~RGWiGliATKmMYm5KgTFdvtZ9MmCkD75w1WXVMYENC~QlwXmXuK0k7MDmOaZL3m5b7JypEWIoxlz15KOcKSsC87Pw4uEGlJ305Ym8~jJ6yYNQ-fbGdcoG2KvmbmdOsdoVz6Zl7JHrBL3L5CFsWWIVfnwhvMxmxdl0avy68nPI07GyAkUwYp7vQKFrUR7vuFqf53v24NrYuBLw__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA)
- Kimmerer, R. (2014). Returning the gift. *Minding Nature*, 7(2), 18–24. [https://www.humansandnature.org/filebin/pdf/minding\\_nature/May2014\\_Returning\\_the\\_Gift.pdf](https://www.humansandnature.org/filebin/pdf/minding_nature/May2014_Returning_the_Gift.pdf)
- Koggel, C., & Orme, J. (2010). Care ethics: New theories and applications. *Ethics and Social Welfare*, 4(2), 109–114. <https://doi.org/10.1080/17496535.2010.484255>
- Lakoff, G., & Johnson, M. (2003). *Metaphors we live by*. University of Chicago Press.
- Laybats, C., & Tredinnick, L. (2016). Post-truth, information, and emotion. *Business Information Review*, 33(4), 204–206. <https://doi.org/10.1177/0266382116680741>
- Leys, R. (2011). The turn to affect: A critique. *Critical Inquiry*, 37(3), 434–472. <https://doi.org/10.1086/659353>
- Mancuso, V. (2015). *Questa vita. Conoscerla, nutrirla, proteggerla*. Garzanti.
- Markard, J., Raven, R., & Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. *Research Policy*, 41(6), 955–967. <https://doi.org/10.1016/j.respol.2012.02.013>
- Merrie, A., Keys, P., Metian, M., & Österblom, H. (2018). Radical ocean futures-scenario development using science fiction prototyping. *Futures*, 95(October), 22–32. <https://doi.org/10.1016/j.futures.2017.09.005>
- Mol, A., Moser, I., & Pols, J. (2010). Care: Putting practice into theory. In: A. Mol, I. Moser, & J. Pols (Eds.), *Care in practice. On tinkering in clinics, homes and farms* (pp. 7–27). Transcript-Verlag.
- Moore, K. D. (2017). *Great tide rising: Towards clarity and courage in a time of planetary change*. Counterpoint Press.
- Moriggi, A. (2017). Investigating the gender inequality and climate change nexus in China. In S. Buckingham & V. Le Masson (Eds.), *Understanding climate change through gender relations* (pp. 157–173). Routledge.
- Moriggi, A. (2019). Exploring enabling resources for place-based social entrepreneurship. A participatory study of Green Care practices in Finland. *Sustainability Science*, 15(2), 437–453. <https://doi.org/10.1007/s11625-019-00738-0>
- Moriggi, A., Soini, K., & Bock, B. B. (2020). Caring in, for, and with nature: An integrative framework to understand Green Care practices. *Sustainability*, 12(3361), 1–23. <https://doi.org/10.3390/su12083361>
- Moser, S. C. (2016). Can science on transformation transform science? Lessons from co-design. *Current Opinion in Environmental Sustainability*, 20, 106–115. <https://doi.org/10.1016/j.cosust.2016.10.007>

- Noddings, N. (2013). Why care about caring? In Noddings, N. (Eds.), *Caring: A feminine approach to ethics and moral education* (pp. 7–29). University of California Press.
- O'Brien, K., & Sygna, L. (2013, June 19–21). Responding to climate change: The three spheres of transformation. In *Proceedings of Transformation in a Changing Climate* (pp. 16–23). University of Oslo.
- Olsson, P., Galaz, V., & Boonstra, W. J. (2014). Sustainability transformations: A resilience perspective. *Ecology and Society*, 19(4), 1. <https://doi.org/10.5751/ES-06799-190401>
- Pearson, K. R., Backman, M., Grenni, S., Moriggi, A., Pisters, S., & Vrieze De, A. (2018). *Arts-based methods for transformative engagement. A toolkit*. SUSPLACE.
- Pope Francis. (2015). *Laudato si. On care for our common home*. Catholic Truth Society.
- Puig De la Bellacasa, M. (2010). Ethical doings in naturecultures. *Ethics, Place & Environment*, 13(2), 151–169. <https://doi.org/10.1080/13668791003778834>
- Puig De la Bellacasa, M. (2011). Matters of care in technoscience: Assembling neglected things. *Social Studies of Science*, 41(1), 85–106. <https://doi.org/10.1177/0306312710380301>
- Pulcini, E. (2009). *Care of the world. Fear, responsibility and justice in the global age*. Springer.
- Pulcini, E. (2010). The responsible subject in the global age. *Science and Engineering Ethics*, 16(3), 447–461. <https://doi.org/10.1007/s11948-009-9175-9>
- Rauschmayer, F., Bauler, T., & Schöpke, N. (2015). Towards a thick understanding of sustainability transitions - Linking transition management, capabilities and social practices. *Ecological Economics*, 109, 211–221. <https://doi.org/10.1016/j.ecolecon.2014.11.018>
- Robinson, J., & Cole, R. J. (2015). Theoretical underpinnings of regenerative sustainability. *Building Research and Information*, 43(2), 133–143. <https://doi.org/10.1080/09613218.2014.979082>
- Schildberg, C. (Ed.) (2014). A caring and sustainable economy: A concept note from a feminist perspective. *International policy analysis* (pp. 1–13). Friedrich Ebert Stiftung. <https://library.fes.de/pdf-files/iez/10809.pdf>
- Scoones, I. (2016). The politics of sustainability and development. *Annual Review of Environment and Resources*, 41(1), 293–319. <https://doi.org/10.1146/annurev-environ-110615-090039>
- Singh, N. (2017). Becoming a commoner: The commons as sites for affective socio-nature encounters and co-becomings. *Ephemera: Theory & Politics in Organization*, 17(4), 751–776. ISSN 1473-2866
- Singh, N. M. (2015). Payments for ecosystem services and the gift paradigm: Sharing the burden and joy of environmental care. *Ecological Economics*, 117, 53–61. <https://doi.org/10.1016/j.ecolecon.2015.06.011>
- Soini, K., & Dessein, J. (2016). Culture-sustainability relation: Towards a conceptual framework. *Sustainability*, 8(167), 0–12. <https://doi.org/10.3390/su8020167>
- Spretnak, C. (1997). Radical nonduality in ecofeminist philosophy. In K. Warren (Ed.), *Ecofeminism. Women, culture, nature* (pp. 425–436). Indiana University Press.
- Tronto, J. C. (2013). *Caring democracy: Markets, equality, and justice*. New York University Press.
- Tschakert, P., & St.Clair, A. L. (2013). Condition for transformative change: The role of responsibility, care, and place-making in climate change research. In *International Conference "Transformation in a changing climate"* (pp. 267–275). University of Oslo.
- Tschakert, P., Tuana, N., Westskog, H., Koelle, B., & Afrika, A. (2016). TCHANGE: The role of values and visioning in transformation science. *Current Opinion in Environmental Sustainability*, 20, 21–25. <https://doi.org/10.1016/j.cosust.2016.04.003>
- UNRISD. (2016). *Policy innovations for transformative change: UNRISD Flagship Report 2016*. UNRISD.
- Warren, K. (2000). *Ecofeminist philosophy: A Western perspective on what it is and why it matters*. Rowman & Littlefield.
- Wells, B. L., & Gradwell, S. (2001). Gender and resource management: Community supported agriculture as caring-practice. *Agriculture and Human Values*, 18(1), 107–119. <https://doi.org/10.1023/A:1007686617087>
- Westley, F., Olsson, P., Folke, C., Homer-Dixon, T., Vredenburg, H., Loorbach, D., Thompson, J., Nilsson, M., Lambin, E., Sendzimir, J., Banerjee, B., Galaz, V., & Van Der Leeuw, S. (2011). Tipping toward sustainability: Emerging pathways of transformation. *Ambio*, 40(7), 762–780. <https://doi.org/10.1007/s13280-011-0186-9>
- Whyte, K. P., & Cuomo, C. (2016). Ethics of caring in environmental ethics: Indigenous and feminist philosophies. In S. M. Gardiner & A. Thompson (Eds.), *The Oxford Handbook of environmental ethics* (pp. 234–248). Oxford University Press.