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# Co-exploring relational heuristics for sustainability transitions towards more resilient and just Anthropocene futures

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**Abstract**

In this paper, four relational heuristic responses for exploring new modes of engagement, or patterns of activity, that could enliven humanity's efforts in fostering systemic thinking and action to inform sustainability transitions are offered. Their purpose is to realise more resilient and just Anthropocene futures. These relational heuristics are (1) re-patterning our theories of change-making, (2) cultivating a shared future consciousness, (3) creating transformative spaces and (4) engaging in processes of co-exploration. We argue that these heuristics are better aligned for studying and responding to the systemic and interdependent nature of the real-world challenges we are currently facing.

**KEYWORDS**

co-exploration, relational heuristics, relational theories of change-making, social-ecological systems, transformative spaces

## 1 | INTRODUCTION

There is growing awareness that human influences on Earth have shifted the planet into what is generally referred to as the Anthropocene epoch (Crutzen, 2002; Syvitski et al., 2020). Changes in land cover and biodiversity loss, and demonstrable planetary-scale impacts on the oceans and atmospheric processes (Folke et al., 2021; Steffen et al., 2015; Zalasiewicz et al., 2017) all reflect the systemic and interlinked effects of human impacts on the Earth System. Further evidence is manifested in environmental changes and novel levels of pollutants in the atmosphere that contribute to potential planetary tipping points (Scheffer et al., 2009). These environmental effects have significant social ramifications, which are exacerbated by widening inequalities among people, unequal access to resources, and an increasing disconnect between humans and nature (Hamann et al., 2018; Steffen et al., 2018). At the same time, socio-technological advances and new forms of collaboration and innovation are opening up new opportunities for responding to these challenges in ways that might offer new visions of planetary change towards more sustainable and equitable futures (Bennett et al., 2016; M Hamann et al., 2020).

The key sustainability challenges of the Anthropocene epoch cannot be addressed without recognising the systemic and intertwined nature of ecological and social problems and opportunities (Biggs et al., 2021; Folke et al., 2021; García et al., 2020; Reyers & Selig, 2020; Schlüter et al., 2019). What is deeply reflected in the changes that mark the Anthropocene is the fact that social and ecological systems are to be conceptualised as intertwined and thus as inseparable ontological entities, constituted of complex,

  

and adaptive social-ecological systems (SES) (Haider et al., 2021; Liu et al., 2007; Preiser et al., 2018). This emphasises the inevitable systemic interdependencies of causal pathways that characterise the intertwined nature of SES.

The recognition of the systemic and complex nature of SES offers scholars, policymakers and researchers an alternative viewpoint for studying and engaging with the complex and intertwined nature of sustainability challenges that mark the Anthropocene (Boulton et al., 2015). The challenges of the 21st century and the Anthropocene are complex, systemic challenges and amplified by what is known as the Great Acceleration, where socio-economic and ecological parameters enter a phase of exponential growth, for example, population growth, energy capture, emissions, water usage, investments and telecommunications (Steffen et al., 2015). The world is not only getting faster and faster, but in its complexity and interconnectedness, the world is not as tame, or as under our control, as past eras purported to be.

If human behaviour is the primary cause of the complex sustainability challenges we face, then transforming our behaviours, and particularly the larger-scale institutions and beliefs that shape these behaviours, may be an effective way to engage with these challenges. The signals are clear that business as usual cannot continue. Global society stands at a precipice: some old systems are collapsing, while new systems are being developed, and others rediscovered, nurtured, and are growing to offer alternatives to previously dominant systems. We need new ways of thinking about change and intervention that take the systemic nature of social-ecological interactions into consideration, especially those that focus on ways which highlight how power and politics mediate social-ecological benefits and burdens (Sitas et al., 2021).

In this paper, four relational heuristic responses for re-imagining modes of engagement or patterns of activity that could enliven efforts of fostering systemic thinking and action to inform sustainability transitions towards more resilient and just Anthropocene futures are offered. These relational heuristics are conceptualised as (1) re-patterning our theories of change-making, (2) cultivating a shared future consciousness, (3) creating transformative spaces and (4) engaging in processes of co-exploration. We argue that these heuristics offer a better fit for responding to the systemic nature of the real-world challenges we are currently facing. For this reconfiguration, researchers and practitioners are called to recognise when the familiar ways of observing, studying and acting are no longer adequate for responding with regenerative and contextually sensitive approaches.

## 2 | THE CALL FOR EXPLORING NEW HORIZONS

> The familiar life horizon has been outgrown: the old concepts, ideals, and emotional patterns no longer fit; the time for the passing of a threshold is at hand. Joseph Campbell (A Hero with a thousand faces, 2008)

An overarching question emerges from the recognition that the world is changing in ways that are systemically linked and complex: How do we bring about change in the face of the intertwined challenges the world is facing? The quest for understanding how change and transformation happens in the world is at the core of what shapes our research and practice as sustainability researchers and practitioners. But more importantly, not only do we need to understand how change happens, we need new frameworks, concepts, theories, and ideas that extend or replace the old understandings of how change comes about. Our task involves both plotting out ways of change-making and reinventing concepts and actions 'on the go'. The rationale for the kind of double movement we are in is the deep knowing that the old concepts, ideals and patterns of change-making are no longer valid for responding to the intertwined nature of the challenges of our time—for as Joseph Campbell (Campbell, 2008) argues, we have crossed a threshold already. The Anthropocene—the nature, scale and speed of the interconnected dynamics that human impacts are bringing about at a planetary scale—is such a threshold.

Although much of the research done in the field of Sustainability Science today focuses on fostering sustainability transformations (Clark & Harley, 2020), different contexts shape research in ways that contribute a particular perspective. For example, contemporary definitions of the notion of social-ecological resilience are framed as the capacity of a system to deal with change and transformation (Bousquet et al., 2016; Folke, 2016) and are based on the understanding that human and natural systems are complex adaptive systems (CAS) that co-constitute each other (Liu et al., 2007). From this perspective, the notion of change and change-making cannot be ignorant of how our understanding of resilience, sustainability, development, measurable outcomes, impact and intervention are defined by a worldview that defines human-nature interactions as being complex. This means that we need to reinterpret concepts such as 'resilience', 'sustainability', 'development' and 'change' as being systemic features of complex adaptive systems. More systemic and reflexive ways of thinking and acting are needed when bearing in mind that our world is one of continuous change and ever-present uncertainty (Arthur, 2021). This

suggests that we cannot think about sustainability or resilience in terms of problems that are out there to be solved or in terms of 'inconvenient truths' that need to be addressed or adapted. Instead, 'we need to think in terms of challenges to be taken on in the full realization that, as soon as we appear to have met the challenge, things will have changed and the horizon will have shifted once again' (Wals & Schwarzin, 2012, p. 14).

Likewise, conventional theories of change assume that change comes about through the effects of a linear causal chain of events that can be traced back to a specific origin. Systemic approaches assume that change comes about as a result of simultaneous multiple causes that produce non-linear feedback effects in the system. Any change affects multiple feedback loops across different scales to produce both intended and unintended consequences (Homer-Dixon et al., 2015). Due to interacting feedbacks, it is possible for small interventions or action to have large effects in relation to the dynamics of the system as a whole (or, in other cases, for large changes to have little effect on the overall dynamics of the system) (Nicolis & Nicolis, 2009). This understanding of how systemic changes in CAS happen has direct implications for how we engage with and intervene in SES to effect change (Abson et al., 2017; Pereira et al., 2020).

One of the significant challenges we face as researchers in this new world is to become much more explicit in how we understand all of these concepts and theoretical ideas to be applicable to the research that we do, but also and in greater measure, how these ideas can inform new ways of acting in the world. As researchers based in South Africa, for example, we are part of a research centre located in Stellenbosch,[1] focusing on employing complexity-based approaches and resilience thinking lenses to engage and respond to the sustainability and development challenges of our continent, with a particular focus on issues related to social-ecological transitions towards more just and inclusive futures. In all our endeavours, we are tasked to demonstrate how our fundamental assumptions that are informed by CAS thinking and seeing the world as intertwined SES could inform new ways of thinking, doing and bringing about change (Biggs et al., 2021). This conceptual framing keeps us busy as we think about what research we embark on, what impact this has for the students we supervise and teach, how we design and convene meetings or workshops, who we invite to attend events and what processes we employ when facilitating meetings (Norström et al., 2020; Reyers et al., 2015; Sitas et al., 2016).

Learning how to explore new horizons might seem overwhelming, and when we think that our ancestors often had to chart new routes on oceans that had no maps, we realise that this could be a daunting journey. Luckily, we are not left without any means to navigate this new world. The work of futurists like Bill Sharpe and colleagues (Sharpe et al., 2016), for example, shows us that exploring new horizons can be a creative and rewarding task. In their book on the *Three Horizons* process (Sharpe et al., 2016), we can glean some 'principles' for engaging a systems-based approach for directing our modes of engagement or patterns of activity anew. In explaining how CAS theory can be used to rethink how we conceptualise our place in this world (a process of re-orientating ourselves in relation to outlived and new horizons simultaneously), Sharpe et al. (2016) argue that reversing our habits of mind could offer fresh insights to challenges. Instead 'of seeing a world of stable things to which something mysterious called "change" happens and of seeing creativity as an occasional accomplishment' (p. 45), we are prompted to realise that the world is continuously producing newness. When we shift our understanding of what 'change' means and what 'change-making' amounts to, we realise that our task should not be to design events that will 'bring about' change or mark some abrupt new point of departure in how things are done. Instead, our task as change-makers or change-curators could be to create conditions for change-making and transformation which could include processes that prepare people or organisations for uncertainty and change, but also to create patterns or spaces of relative stability if that is called for.

## 3 | RE-PATTERNING OUR THEORIES OF CHANGE-MAKING

Traditional views and theories of change and change-making propose tailor-made recipes or reproducible strategies to design and engineer change processes. The underlying assumption of these techniques and tools for process enhancement is that if we follow the instructions or programmed theory of change perfectly, change is guaranteed as an outcome of our meticulous application of these processes. However, in CAS, change and transformation happens 'as a result of everything going on in the world' (Sharpe et al. 2016, p. 15). Understanding that change and transformation are emergent outcomes at every scale of life, from the individual to the planet, calls us to rethink our capacity to 'bring about change and transformation'. It leads us to see transformative change as 'that change which requires a re-patterning of our collective lives rather than an extension of the current pattern' (Sharpe et al. 2016, p. 30). This means that we need to investigate the current assumptions that inform change-management theories and practices, how people think about designing, funding and implementing

development interventions, and how these patterns of action and societal structures manifest in a complex world. Here, we want to offer an alternative view of how change comes about by reflecting on some initial assumptions that could inform a relational theory of change-making.

A relational theory of change-making builds on the assumption that relations constitute all CAS (García et al., 2020; Preiser et al., 2018). Relations can be defined as processes of engagement, as well as the outcomes of such processes (García et al., 2020). The consideration that relations matter in how we conceptualise of systems implies that a relational theory of change-making offers a new conceptual framing for how we assume and imagine how change and transformation come about in a systemic manner (Midgley & Ochoa-Arias, 2001). This new framing has real implications for how to study and understand CAS and resilience, which in turn has important implications for knowing what capacities are necessary to bring about resilience and transformation in systems, and how we should plan development and strategic change-making interventions. From this perspective, for example, the notion of resilience can be defined as the generative capacity that regulates the systemic relational configurations. If all the relations stay the same, resilience would be defined as the capacity to bounce back; if some of the elements change in the system to allow it to maintain the same functions, resilience would be the capacity to adapt. However, for a system to transform itself, new relational configurations between elements are needed, and therefore, resilience could be described as the capacity to create these new relational configurations. Hence, from a complexity and resilience thinking approach, a relational theory of change suggests that transformation comes about by reconfiguring the relational structure of systems and by creating opportunity contexts that allow new relations to grow and develop new and accumulative agencies to reinforce the effects of new feedback loops across multiple scales.

Moreover, relations are defined by functions and contexts—so when the context (system environment or structure) changes, the relational configurations change, thus influencing the functions that components have within a certain context. Agents possess multifunctionality that is context-dependent, and these different functions can be in conflict or reinforce one another. For example, a smallholder farmer has little agency in terms of the larger food system because of the limited quantity of food she produces, but in her local village, she might be an activist for food security issues and serve on the regional community forum that meets with governance agencies. In this context, her agency is well recognised, and her experience as a smallholder farmer is valued highly and can influence decision-making at a regional scale.

In particular, this understanding of change in CAS means that small pockets or niches of innovation have the capacity to trigger transformative systemic change if they are strategically linked and combined with other innovation niches and feedback processes to produce cascading systemic effects (Bennett et al., 2016). However, the 'opportunity contexts' that enable innovation niches to trigger larger-scale, emergent, systemic impacts typically need to be strategically fostered and do not simply arise by themselves. Although chance events often play a significant role, the systemic context needs to be prepared to effect and take up change. Fostering opportunity contexts typically requires working with 'slow variables', such as people's worldviews and attitudes, and fostering new connections between niches (Rogers et al., 2013). Bringing about transformative change therefore requires attention both to fostering pockets of new innovation, as well as new connections and opportunity contexts that enable pockets of innovation to trigger larger systemic changes. The ongoing collaborative research project called 'Seeds of Good Anthropocenes' (https://goodanthropocenes.net) is a good example of how these ideas are conceptualised and utilised in social change processes where 'seeds' (existing initiatives which hold potential to shape the future) are used to create participatory scenario development processes based on 'seeds of good Anthropocenes', that is, existing initiatives or technologies that represent current, local-scale innovations for sustainability (Hamann et al., 2020).

## 4 | CULTIVATING A SHARED FUTURE CONSCIOUSNESS

Recognising that relations and context matter in how we conceptualise change-making, brings up the notion of power, privilege and equity. Working in Africa and southern Africa specifically, we have learnt that being aware of who is talking to whom about what kinds of change and transformation should happen, matters. It matters because our context is constituted by a rich diversity of natural settings, cultural settings, organisational sectors, and interests expressed in different experiences and interpretations of race, language, cultural norms, standards of living, aspirations, and what we collectively hope for in the future. No project can take a systemic approach to sustainability or resilience thinking without some critical reflection on understanding what forms of power and privilege we bring into the spaces, conversations, collaborations and interventions we convene and facilitate. Different people have different interpretations, beliefs and values that influence what they deem as being 'good or bad' (Preiser et al., 2017; Waddell, 2016; Ziervogel et al., 2016).

How concepts like 'resilience' are defined and what various stakeholders see as being practices that 'enhance or destroy resilience' is also influenced and shaped by the diversity of voices that are convened around a certain challenge (Harris et al., 2018; Meerow & Newell, 2019; Nagendra et al., 2018; Ziervogel, 2019). Any conversation about resilience or transformative change needs to involve all those who are involved with the intended projects or research and must at some point become engaged in processes of change, through either supporting or resisting it. Being responsive and sensitive to context, calls for modes of engagement that cultivates a shared future consciousness to foster processes of acknowledging the diversity and many forms of injustice that can shape different understandings of resilience and sustainability. Cultivating a shared future consciousness should form the foundation for reflexive practices for engaging with the tensions and variety of values, assumptions and aspirations involved in change-making (Friend et al., 2016; Hamann et al., 2020). When convening dialogues, the aim is to involve multivoiced engagement with multiple actors who bring multiple perspectives into the convened spaces (Warner, 2006). By experimenting with different approaches for fostering different ways of seeing and hearing each other and ourselves, we allow ourselves to see our own forms of privilege or positions of power in the contexts we inhabit and influence (Galafassi et al., 2018). The many divergent views and values that convene around various sustainability challenges allow opportunities to engage in regenerative conversations that can inform new narratives and relations for plotting ways forward towards creating a shared form of future consciousness and 'world-making' (Lindow et al., 2020).

To influence and shape new patterns of institutional governance and societal agency that can generate transformative change, the content and focus of our work may develop in a direction where project managers and researchers start to ask the following questions (Lowe et al., 2020; Lowe & Wilson, 2017):

- How can funders, implementing agencies and evaluators create the conditions in which people can build effective human relationships in the process of designing and executing funded development projects and interventions?
- How do we establish 'what works' or not in an ongoing process of learning and adaptation? In complex environments, people are required to learn continuously in order to adapt to dynamic, ever-changing contexts. In such environments, there are no simple interventions that 'work' to tackle a problem.
- How do we create the conditions where people can be honest about their mistakes and uncertainties? It is the job of managers to enable team members to learn continuously as a tool for performance improvement, and we need measures to support learning, not for reward/punishment.
- How do we create reflexive practice environments between and across peer groups where funders/commissioners and managers are challenged to fund and manage for learning and adaptation instead of for 'results'?
- How do we enable actors in the system to coordinate and collaborate effectively for positive outcomes to emerge? The outcomes we care about are produced by many different actors working together. A key role of change-makers or systems practitioners and researchers is to act as systemic stewards.
- What are the assumptions of current funding and management approaches and how can researchers and practitioners develop and adopt more complexity-informed approaches to navigate the current and future challenges of our changing environments?

These questions challenge us to engage in an authentic and reflexive manner. There are no clear-cut recipes, design processes and quick fixes to answer these questions; instead, we are called to step into the tensions and often paradoxical nature of what it means to allow for emergent forms of change and transformation to happen, in the hope that we can nudge some re-patterning of the old ways of thinking and doing (Preiser & Cilliers, 2010). Drawing on the work of Laclau & Mouffe (1985), Lotz-Sisitka et al. (2015) suggest that this mode of engaged 'agonism' characterised by discontinuities, tensions and risk becomes generative in a collective struggle. It is key to any process of cultivating a shared future consciousness that aims to bring about reflexive social learning and transformative capabilities (Lotz-Sisitka et al., 2015).

## 5 | CREATING TRANSFORMATIVE SPACES

In practice, facilitating relational reconfiguration requires that the process of co-exploration should be facilitated and executed through modes of engagement that are cognisant of the conditions and capacities that are needed to nurture and foster the process of relation-building and networking. Seeing that the process of reconfiguring relations is in itself the result of a complex process, it means that the conventional practices of convening meetings and multistakeholder workshops have to be re-imagined. The way in which we rethink space and how that space allows for the building of trust,

connectivity and the exchange of new ideas is paramount in creating transformative spaces. Conventional practices, where meetings are structured around a board-room table with experts facilitating stakeholders according to programmes that are designed to assume linear interaction and predictable outcomes, are too restrictive for allowing innovation and the reconfiguration of relations.

Based on a relational and contextual understanding of transformative change processes as discussed earlier, sustainability and systems researchers need to understand the significance of creating 'transformative spaces' (Pereira et al., 2018) where actors can test and further develop new concepts and practices that might foster resilience and transformation in relation to key systemic and contextual challenges. The notion of 'transformative spaces' is conceptualised as spaces in which new relational configurations can be nurtured or strengthened so as to create new forms of agency and transformational potential—that is, they are holding spaces for relational reconfiguration (Pereira et al., 2018). Transformative spaces are certain kinds of 'opportunity contexts' (Westley et al., 2013) that can be conceptualised as the conditions that enable the transformative potential of space to be realised. Similar to the notion of 'opportunity contexts' (Westley et al., 2013), transformative spaces can be conceptualised as the conditions that enable the transformative potential of space to be realised and must itself be nurtured through the relational reconfiguration that occurs in the transformative space or associated spaces.

From a systemic perspective, the notion of space and agency in CAS is deemed to be dynamic (Stacey, 1995). Agency is decentralised (meaning that agency is not located in one central or overarching capacity) (Hummelbrunner & Jones, 2013) and various elements in a system (e.g., individual people or organisations) have the potential to change the relational configurations and contribute to systemic modes of transformation (Kaaronen, 2018; Klein, 2016). Enabling this transformative potential requires fostering new connections among like-minded, or sometimes conflicting, actors to help build new feedbacks and constellations (Engeström et al., 1999; McAvinia & McAvinia, 2016). Such new constellations are emergent and generate new kinds of agency, whether it is through gaining more power, more information, or the capacity to act in more dimensions or across different scales (Ison et al., 2013; Leach et al., 2018).

By re-appropriating the resilience principles (Biggs et al., 2015) into capacities that are necessary for building resilience, we argue that transformative spaces are marked by design and facilitation processes that allow for novel modes of engagement. As a result, there is a strong focus on process, and this is closely linked to facilitation processes and environments that foster resilience by allowing participants the agency to engage with the complexity of their situations/positionality. As such, content development and process design cannot be seen as separate activities but mutually inform one another through careful planning, and allow reflexivity and adaptation to happen. Furthermore, there is a shift from relying on 'best practice' strategies to exploring processes of sense-making, emergence and involving the participants cognitively *and* emotionally.

The practice of designing and convening 'transformative' meeting spaces for people to engage around a certain topic of interest or concern through participatory workshops, seminars, dialogues and immersive learning journeys can be seen as exploring ways of creatively creating spaces of 'relative stability' where participants can take time out of their normal schedules, patterns of engagement and action, to be challenged or affirmed, to connect with other bridge-builders, decision-makers or influencers, to pause and reflect and exchange ideas and experiences with each other (Care et al., 2021; Roux et al., 2020). Often during these events, participants feel that they are not alone in their journey to do something different in their organisations and that they find their own voices, get new ideas, connect with other influencers and learn new vocabularies and skills to make sense of their own contexts. All of these actions happen in invisible ways and cannot be easily captured to show impact as project outcomes. Quietly and often hidden to the eye of the researcher or evaluators, some form of creative integration happens in these convened spaces. This integration informs a mode of being together that is marked by creative integrity (Sharpe et al., 2016) where inspiration and hope is born, allowing one to notice and detect new possibilities, and generates the creative energy to engage in the everyday routines and protocols to co-explore new horizons.

## 6 | ENGAGING IN PROCESSES OF CO-EXPLORATION

Finally, when responding to the call of navigating new horizons, we see that this call inevitably requires that the role of the researcher engaged in global change or sustainability research, is also re-imagined. The role of the conventional scientific researcher is marked by modes of engagement that are based on methods of knowledge extraction, where the researcher takes on a position of being the 'expert' with the relevant skills and empirical methods to analyse real-world problems. Defined from a relational and systemic understanding of the world, there is a shift from being extractors and curators of knowledge towards being facilitators of relations and curators of

transformative spaces. For the researcher, this means not seeing one's role as that of extractors and analysts, but rather to reenvisage ourselves as co-explorers that are embedded in processes of network building, experimentation, learning and sharing (Norström et al., 2020; Sitas et al., 2016). Now more than ever, the scope of sustainability research expands from incremental to transformational approaches to societal change and researchers are called to 'expand their understanding of who, where, and when to engage' (de Bremond et al., 2019, p. 97). A greater emphasis on participatory processes and modes of engagement is needed that allows relationships between researchers and other actors to be built and fostered to create joint modes of understanding of what kinds of knowledge and tools are needed for assessing and building resilience and transformative change.

As a result, one can also argue that the role of conventional science changes from not only verifying and legitimising objective empirical analysis but also integrating knowing processes and experiences from stakeholders to support policy and decision-making through expanding its modes of engagement and translating scientific findings into publicly accessible reports, policy briefs and multimedia outputs (Fazey et al., 2020). This process of 'co-exploration' is one of operating at the interface between science, policy and practice (Mauser et al., 2013). Moreover, our lived experience of doing these kinds of research is confirmed by an increase in scholarly literature confirming that the process of transformative knowledge co-creation research broadens and alters the roles for researchers and stakeholders (Caniglia et al., 2020; Wiek et al., 2011). Researchers are no longer mere knowledge producers but have to learn to engage in roles such as process facilitators, knowledge brokers, change agents, experts in learning, self-reflexive scientists, facilitators and project managers (Wibeck et al., 2019). Engaging in participatory processes of co-exploration broadens the scope for verifying scientific transparency and accountability, which allows for a broader inclusion of different kinds of knowledge (Cockburn et al., 2020). If well designed and conducted, the literature highlights that integrative and reflexive modes of knowledge co-creation have relational outcomes that contribute not only to learning processes but also to capacity building, empowerment and network building. These relational outcomes of participatory processes of co-exploration are important for shaping socially robust knowledge and transdisciplinary sustainability research (Schneider et al., 2021). The process of acknowledging a broader set of relations in knowledge co-creation can foster new opportunities for integration and systemic engagement in wider networks or in nodes that are highly connected to decision-makers and practitioners.

## 7 | CONCLUSION

In this paper, we argue that more appropriate responses and modes of engagement are called for in the face of the thresholds that the Anthropocene challenges pose to researchers and practitioners engaged in sustainability research and practice. Four relational heuristic responses were offered that could be employed to foster more integrative modes of engagement for systemic transformation. By exploring the possibilities of shared visions of the future, we can create hope and trust to enter into transformational dialogues that have the potential to inform alternative ways of world-making.

Although the imperative to 'create hope and trust' are not typical outcomes that project evaluations require as measurable outcomes, we have learned that without hope and trust, no event can be convened authentically. Engaging in difficult conversations, acting in the face of uncertainty and navigating radical diversity cannot happen in a vacuum, as all of this takes courage. It also requires some capacity to make judgement calls, moments of being vulnerable, or being bold enough to step out of our comfort zones. Within the familiar patterns of life, all of the above requires us to not just 'go through the motions' but to forge pathways for creating new patterns and exposing the familiar patterns as having crossed outlived thresholds. In light of the current real-world Anthropocene challenges, the relational heuristics of (1) re-patterning our theories of change-making, (2) cultivating a shared future consciousness, (3) creating transformative spaces and (4) engaging in processes of co-exploration are suggested as possible wayfinding strategies for developing a deeper consciousness for exploring new ways of collaborating and co-creating spaces, and new ways of being through which we can deepen our shared experience of what it means to be human in times of great uncertainty.

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## ENDNOTE

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