Engaging with Theories of Change in Transition Design

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Abstract: The transition design (TD) framework calls for integrating theories of change when designing for systems-level shifts. Meanwhile, a theory of change describes the relationship between actions taken and outcomes yielded in the process of initiating change. This paper recommends developing the capacity of transition designers to explicate the theories of change operating in our research and practice. To this end, the authors discern operational themes –situate, reframe, intervene– that can be found in TD work and offer prompts to help practitioners engage with the theories of change in their work.

Keywords: Theory of change - Theories of change - Transition design - Social change - Systems change

[Abstracts in spanish and portuguese at pages 158]

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Introduction

The Transition Design (TD) framework identifies "theories of change" as one of four key areas of TD research and practice alongside vision, mindset, posture, and new ways of designing (Irwin *et al.*, 2013). Further, it calls for surfacing and integrating theories of change when designing for systems-level transitions "because we need a variety of theories and methodologies that explain the dynamics of change within complex systems" (Transition Design Seminar, 2021b). Meanwhile, a theory of change is an idea or narrative about the relationship between actions taken and outcomes yielded in the process of initiating change (Connolly & Seymour, 2015). Inherent to the practice of TD is a process by which designers engage deeply with the ontology of design; Tonkinwise (2015) stated that TD is "always about […] designing designing". In that sense, it is inherent to the TD practice to be ongoingly conscious and evaluative of our design process and its impact. Moreover, the work of making theories of change explicit offers the opportunity to reveal assumptions, confront biases, and build trust in a group (Center for Theory of Change, 2021; Mindell, 1995). It also creates a shared premise to return to when the work proves difficult and opens the door to new collaborators who may hold the same or complementary theories. As TD grows to include more theorists and practitioners, we must build the capacity to understand and articulate the theories of change that underpin our projects. To support this, we have identified and categorized some recurrent theories of change in the emergent field of TD theory and practice. Based on this analysis, we offer the three themes of situate, reframe and intervene, through which how we believe change happens in TD work can be understood. We conclude with prompts to encourage active engagement with the dimension of the TD framework and process. By examining the theories of change at work in TD, this paper aims to inspire reflection and rigor in the practice of explicating our theories of change in TD work, while offering supporting questions to scaffold the process.

Background

TD is a framework and a community of research and practice within the broader field of design for transitions. The emerging framework of TD is a force for change in the design world to provoke designers to understand their roles as interveners in systems-level change. As an article describing the work of TD co-creator Terry Irwin explained further, "[TD] created a new educational framework that encourages designers to apply their skills to better address wicked problems and cut design's ties to the economic culture that has catalyzed those problems" (Kazior, 2021). Further, Irwin (2015) noted that "Transition Design is based upon longer-term visioning and recognition of the need for solutions rooted in new, more sustainable socioeconomic and political paradigms". Cameron Tonkinwise (2015), also a creator of TD, described it as an approach that "acknowledges the extent of our social crises by advancing the practices of social and sustainable designing through the incorporation of multi-stage practice-oriented transformation". An emerging community of designers and researchers have responded to these provocations and taken up this approach.

The community of TD research and practice has grown significantly since the founding of TD within the School of Design at Carnegie Mellon University in 2015. The growing body of research includes the doctoral dissertations of Butoliya (2018), Mages (2018), Onafuwa (2018), Ansari (2019), Katrini (2019), Scott (2019), Carter (2020), and Mata-Marin (2020) as well as the work of scholars and practitioners around the world including Wallace (2019), Escobar (2018), Boehnert (2019) among many others. In this paper, we reviewed TD and "designing for transitions" literature from 2015 to the present. Work that mentions TD or some form of design for transition was included, with particular emphasis given to the contents of the 2019 special edition (Nº 73) on TD from the Cuadernos del Centro de Estudios en Diseño y Comunicación publication.

Our perspective as authors is informed by our research and practice of developing theories of change in TD and other professional, social change contexts. We, the authors, are three doctoral candidates (Madeline Sides, Hillary Carey, and Erica Dorn) in CMU's PhD program and an anthropology professor (Noah Theriault), who advises CMU doctoral candidates in TD. We believe that the ability to identify and articulate theories of change could be a powerful core competency for transition designers. This paper is an offering to fellow TD researchers, designers who seed transitions, changemakers engaged in thoughtful design of social and ecological change processes, and anyone who wishes to better articulate their change making processes.

Defining Theories of Change

There are many definitions, methods, and frameworks for understanding theories of change. Early literature defining TD offers a few starting points from other disciplines for new such theories to inspire TD, including the living systems theory, post normal science, paradigm shift, alternative economics, and sociotechnical regime theory (Irwin, 2015).

Broadly defined in education research, "a theory of change is a predictive assumption about the relationship between desired changes and the actions that may produce those changes" (Kezar *et al.*, 2015). One of the most ubiquitous methods was developed by the Center for Theory of Change over decades of collaborative work with nonprofits, government agencies, philanthropies and community organizations across the globe (Center for Theory of Change, 2021). This method is often utilized by organizations engaged in nonprofit and social change work that requires the documenting of specific outcomes and being accountable to funders and communities.

In this paper, we are not concerned with whether particular theories of change are more effective than others nor are we advocating that TD hold fast to specific, premediated theories. Instead, we ask the following anthropological questions: How do transition designers believe change happens? What implicit and explicit theories do we bring to our work? Meanwhile, Tonkinwise (2014) defined a theory of change as follows:

> … a model of the system in which design interventions are taking place. It identifies key components and the relations between those components, as well as other systems that may lie alongside the focus system, or systems within which the focus system resides. […] A Theory of Change is never fixed or complete, but always being modified by what is learned about the system being modeled by error-friendly, more-or-less-reversible interventions into that system.

In early TD literature, Irwin (2015) offered another description of theory of change as "a hypothesis [...] formulated about what type of change is needed and an assumption [...] about the correct approach for intervention, based upon a predicted outcome." The current TD Seminar website widens the definition's scope to be: "how and why societal systems change or remain inert, and how such change manifests and can be catalyzed and directed towards desirable and sustainable futures" (Transition Design Seminar, 2021c). In order to develop these theories and clarify how we understand how change can happen in a system, transition designers are encouraged to be engaged in continuous, evolving learning processes (Transition Design Seminar, 2021c). In this paper, we review and categorize some of the explicit theories of change at play in TD projects, including the implicit assumptions and principles underlying them.

Moreover, we have come to recognize that TD is, in itself, a theory of change. The TD framework describes how the work and approach of designing can engage with and scaffold the process of change through establishing a vision for change, new theories of change, new posture and mindset, and new ways of designing (Transition Design Seminar, 2021b). It is also an approach that invites additional theories of change to catalyze and support specific contexts and movements.

In authoring this paper, we aim to advance conversations within TD about how theories of change are identified, made explicit, and engaged with. This work is a foundation for further reflection and discussion in the field that ultimately seeks to increase the capacity of TD projects to support enduring, positive social and ecological change. As with any developing model, the one presented here is inevitably incomplete. Thus, we offer it in the

spirit of collaboration. To this end, we invite discussion that might advance our collective understanding of TD and the theories of change that support deep commitments to making wise and ethical change in the world.

Explicating Theories of Change

Design practices inevitably involve theories of change. Consciously or unconsciously, designers carry out someone's theories of change in their work. Researchers in education distinguish between "implicit" and "explicit" theories of change (Connolly & Seymour, 2015). The former are our unconscious or tacit beliefs about how change occurs (Kezar *et al.*, 2015). Enmeshed with our most deeply ingrained assumptions about reality, personhood, ethics, and agency, implicit theories of change shape our efforts to understand, respond to, and enact change even as they remain largely subconscious and unexamined (Tuck, 2009a). Meanwhile, the latter "has been reflected on and integrates research on change" (Kezar *et al.*, 2015) in order to account for, prescribe, or challenge change processes.

In both the implicit and explicit forms, theories of change are omnipresent in the thoughts and actions of all social agents. They take on heightened significance amid conscious efforts to make change, whether through government, activism, research, design, art, or education. In this context, Kezar *et al.* (2015) made the observation that "much of the literature on theories of change does not note whether authors are referring to explicit or implicit theories, but they are distinctly two different phenomena". Meanwhile, critical race and indigenous studies scholar, Eve Tuck (2009b) highlighted what is at stake when our theories remain implicit:

> [A] theory of change will have implications for the way in which a project unfolds, what we see as the start or end of a project, who is our audience, who is our "us," how we think things are known, and how others can or need to be convinced. A theory of change helps to operationalize the ethical stance of the project, what are considered data, what constitutes evidence, how a finding is identified, and what is made public and kept private or sacred.

In the TD context, Irwin *et al.* (2015) advocated for disrupting outdated, invisible, and harmful theories of change, such as unquestioned economic growth. As Tonkinwise (2015) stated, "Transition Design is a deliberate attempt to update the theoretical frameworks informing designing". Those updates are needed because, as Tonkinwise (2015) argued, designers' limited examination of the theories of change at play in their work has effectively entrenched the outmoded, unjust systems and mindsets we must contend with today. Consequently, it is then necessary for transition designers to be equipped with an understanding of the scope and scale of various theories of change and to be prepared to make choices when it comes time to do the work. Thus, the call to examine and explicate our theories of change in design is not just a matter of advancing design theory, it is also a way to increase a project's chances of success (Tuck, 2009a).

Emerging Themes: Situate, Reframe, Intervene

We have found that when articulating how systems-level design can bring about more equitable and sustainable futures, authors in the TD field tend to emphasize three types of action that we categorize as situate, reframe, and intervene. These themes, as illustrated in *Figure 1*, elaborate on the theories of change node within the foundational TD framework.
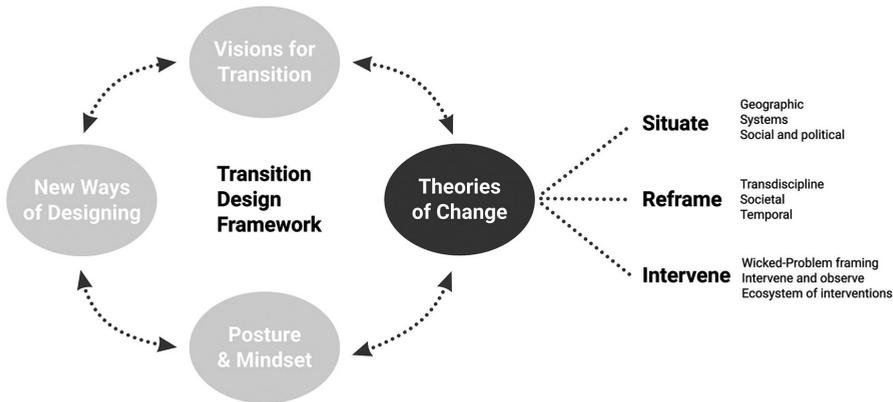

Figure 1. Situate, Reframe, and Intervene as Themes within Theories of Change Extending the TD Framework (Note. Adapted from Irwin et al. 2013).

Situate: Orienting Ourselves within a System

Geographic Situating

TD's founding literature strongly suggested that its projects must be geographically bounded (Irwin, 2015; Bosch Gomez & Qazi, 2019; Hamilton, 2019). In support of TD, Escobar (2018) stated that "the emphasis on place-making and collaborative practice, as well as the unambiguous grounding of TD in an ecological vision, is an important element of the political ontology of design". This localized context serves multiple functions: increasing the likelihood that all key stakeholders can be involved; easing trust-building between TD catalysts and those who are most physically proximate to the problem; and maintaining a sense of urgency and alignment in decision-making. Localization also promotes new thinking about possible solutions, such as those put forth by cosmopolitan

localism and Transition Town theories and practices (Irwin, 2015; Manzini, 2015; Bosch Gomez & Qazi, 2019; Hamilton, 2019).

Whether the designer is indigenous, a longtime local, a newly rooted transplant, or an outside facilitator, TD literature makes it clear that the people who live within the challenge must carry out the decision-making and work of change. In this context, Wallace used the phrase, "designers embedded within communities" (2019). Further, TD doctoral researchers Bosch Gomez and Qazi (2019) described it in the following manner: "Many transition movements argue that change must begin at the local level, with groups of like-minded individuals banding together to forge experimental communities rooted in transition principles such as sustainability, local cosmopolitanism, and collaboration". Thus, how we define and prioritize proximity in mitigating a wicked problem in TD significantly influences the change process. Further, geographic situating is one of the most clearly articulated and fundamental theories of change in TD.

Systems Situating

Understanding systems as interconnected and interdependent is an essential approach in designing for transitions (Capra & Luisi, 2014). Situatedness includes an understanding of oneself in relationship to the systems in which one is nested (Haraway, 1988). According to Tonkinwise (2015), "Transition Design also works from the assumption that all these social stresses are interlinked; no one instance of these crises can be solved in isolation from the others." Thus, situating a particular challenge within the levels of niche, regime and landscape is a core foundation of TD practice (Kossoff, 2019). Here, identifying that all elements of the challenge are linked –in terms of being dependent on and influential toward external systems– enables a more holistic understanding of the challenge and the opportunities for change.

Social and Political Situating

Social and political situating represents a growing edge for TD. In the last year, the core website for learning this practice, Transition Design Seminar (www.transitiondesignseminarcmu.net) has expanded attention to social relations. These areas include the following: stakeholder relations; pluriversality and decoloniality; mindset and posture; power dynamics; polarization and bridging divides and systems of oppression. Beyond the geographic and systems contexts, oppression and access should inform project structures. In this context, Boehnert (2019) highlighted the interdependence of social and ecological change: "Those pushing forward ecological transitions need analytical skills to approach economic, political, and cultural issues critically to understand how they intersect with environmental harms and injustices". Systems thinking may address some of these attributes, but social and political positionality must also be acknowledged and evaluated (White, 2018; Boehnert *et al.*, 2018; Wallace, 2019). As the decolonizing design movement has noted, design has histories of upholding symbolic violence and cultural oppressions (Boehnert & Onafuwa, 2016; Schultz *et al.*, 2018). Thus, the histories of design, as well as that of the localized problem, must be understood through the lenses of structural oppression.

Complex social change requires us to articulate, discuss, and reflect on the ways that we, personally, are oriented in the world and to a particular challenge space. Design practitioner and educator Jennifer Rittner (2017) described this work as "the practice of interrogating systems –institutional, economic, social, political, interpersonal– in order to define opportunities for change that give voice to those who have been disenfranchised or marginalized by design". In this context, Cultural Studies professor and intersectional feminist, Eugenia Zuroski (2020), asks her students to begin their learning journeys by reflecting on the question, "Where do I know from? What are the strengths and weaknesses of my perspective on this challenge?" This type of situating prepares us to identify our own implicit theories of change, which is the first step towards making them explicit.

Reframe: Creating New Perspectives

Reframing is the active and collaborative work of developing a new perspective on a problem and the potential beyond it. This often takes place through a series of research and visualizing activities. Moreover, TD is founded on the belief that the kinds of thinking that created most modern problems cannot be used to effectively address them (Irwin, 2015). Thus, the work of building new perspectives is one of the key ways that design contributes to change making in TD. Through re-examining a challenge in the past, present, and future, the once-rigid structures that constrain problems can begin to appear mutable. The reframe theory of change in TD is made up of many distinct but complementary ways to challenge existing perspectives and seek new insights. We offer a summary of these reframing approaches as articulated in the literature in this section.

Transdisciplinary Perspectives

Transition designers work in a transdisciplinary manner to draw connections across distinct areas of knowledge and expertise. As Irwin (2019) described, "it is imperative that old frames and cognitive models are set aside in order to reframe the problem using group intelligence". However, these complex challenges cannot be addressed through a single disciplinary perspective. In this context, the Social, Technical, Economic, Environmental, and Political (STEEP) framework is often used to ensure that teams are thinking across many different aspects of a challenge. Further, designers' ability to gather ideas from multiple sources, visualize relevant relationships, and propose new lenses through which to view a problem context can help summon the new energy needed to untangle entrenched challenges (Hamilton, 2019).

Societal Scale

An essential notion of scale exists within TD's orientation toward complex challenges is. To reframe the challenge using broader perspectives of scale, TD draws on two specific tools developed in other areas of practice: the multi-layer perspective (MLP) and causal

layered analysis frameworks are powerful mapping tools that help to clarify root causes and opportunities for intervention (Geels, 2002; Inayatullah, 1998). To cite two examples, a transition designer may use these frameworks to map the history of air pollution in Pittsburgh or to identify the myths that hold racist ideology in place. Moreover, these visualizations help to broaden perspectives and draw connections while identifying areas to make change. More specifically, mapping the everyday habits, interpersonal experiences, policies, structures and ideologies of a wicked problem help communities see that interventions are needed in multiple realms at different scales.

Temporal Scale

In addition to scales of action or activity, orienting toward longer time horizons is essential in TD for approaching change in complex systems. In this regard, Irwin (2018) described the need for "radically large spatio-temporal contexts" when reframing a problem. This type of change unfurls over time at a slower pace than smaller-scale interventions. Rittner (2017) agreed, stating that "success in this arena is not marked by the production of an object or the completion of a project, but through extensive observation, feedback and assessment over the long term". In TD, considering long timeframes is helpful in grappling with and reframing such challenges.

Locating visions in the far future is useful in aligning goals among people who might be at odds in the present. Bosch Gomez and Qazi (2019) noted that through orientations toward imagination, "designers have the means and possibility of creating new, abstract, speculative and hypothetical possibilities" and, through skills of making things tangible, can suggest "the pathways by which those possibilities could then be materialized". Thus, vision-generating tools serve both to gather ideas and values from a range of community members as well as to bring new ideas into the discussion, "ensuring a diverse range of images of the future, [which] we surmise, may well be a critical part of a healthy and transition-capable society" (Lockton & Candy, 2018). TD theories of change within the theme of reframe encourage us to engage in more dynamic, longer term, and often nonlinear notions of temporality to find new inroads towards positive systemic change.

Intervene: Making Change through Careful Disruption

TD uses the term "intervention" to describe activities that purposefully seek to alter the trajectory of a system of concern (Transition Design Seminar, 2021a). Because of the long-term nature of designing for societal transitions, intervening in such complex problem spaces is seen more as careful experimentation than as crafting a conclusive solution. In this context, a key theory of change in TD is that interventions provide us with feedback loops with which to improve iterative approaches to designing for transitions (Transition Design Seminar, 2021d). More specifically, rather than expecting an intervention to immediately shift the trajectory of something as enormous as climate change or public health, the literature calls on transition designers to find "the tenacity to change a system

through multiple, iterative interventions over time" (Irwin *et al.*, 2015). This approach requires transition designers to cultivate new methods, skills, and mindsets in order to work in long-term projects that seek to unravel complexity over time (Transition Design Seminar, 2021d).

Wicked Problem Framing

TD considers it essential to understand systems-level problems through the framing of wicked problems (Transition Design Seminar, 2021a) This concept and problem framing predates TD, but design as a field has long engaged the terminology (Buchanan, 1992). Moreover, wicked problems have been described as "social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing" (Churchman, 1967). Further, the writing on TD emphasizes the "multi-scalar, multi-causal, and interdependent" nature of wicked problems (Transition Design Seminar, 2021e).

TD was developed with the intention to better equip designers to contribute to the untangling of these seemingly intractable long-term challenges. In this context, Tonkinwise (2015) wrote, "Transition Design explicitly locates itself within the domain of 'wicked problems' because it involves a kind of designing that 'stays with' a problem". Here, the TD approach heeds the observation made by Rittel and Webber (1973) that the complexity of these dilemmas is unknowable until we begin to dive in –only by attempting to disrupt them can we gain understanding on how they work.

Intervene and observe

In TD, creating careful disruptions is emphasized as an important way to further understand a wicked problem. Change in living systems is unpredictable, and we can only intervene and then observe what happens (Mitchell, 2002, pp. 19-53). As Tonkinwise (2015) noted, "a Transition Designer designs something not to be an end-unto-itself, a final solution to a problem, but to open up subsequent opportunities". In this context, Rittner (2017) stated that "it is in the long-term that we hope change will be visible, not in the moment that the design team completes the implementation of an idea". Further, redirecting the outputs of design toward systems interventions is a disruptive act –one that unfolds over time and therefore requires observation.

The practice of TD first reframes issues to uncover new perspectives, then determines corresponding actions to disrupt the problem's trajectory, and finally, identifies what works and what requires further attention. In transition theory, these are referred to as "niche experiments" (Coenen *et al.*, 2010). These niches are semi-protected domains in which new devices, skills, and meanings can co-evolve. When robust, these new social practices can then be reproduced or translated more widely (Tonkinwise, 2015). This careful disruption, particularly when coupled with the MLP framework, opens up opportunities to intervene at multiple levels and to learn through experimentation about possibilities for change.

An Ecosystem of Interventions

Change in complex systems should be simultaneously approached at multiple scales, and those used in TD to reframe the problem –particularly the mapping of levels of society in the MLP– have secondary uses in helping to identify a coordinated set or ecosystem of interventions. Irwin *et al.* (2015) made use of the MLP framework to frame "socio-technical regimes, patterns of artifacts, institutions, rules and norms, and the role of 'niches' within such systems as important loci for intervention". For example, a combination of services could be proposed that support new behaviors at the household level alongside policy changes that make it more feasible and communication strategies that help people see the opportunity differently. In this context, design critic Damian White (2018) referenced design philosopher Tony Fry in asserting that "these redirective practices must function and be deployed by design professionals and design-literate publics at multiple scales and spheres of operation if we are to have any hope of unraveling coloniality, resisting capital and surviving climate destabilization". Thus, a theory of change in complex systems is that one lone intervention is unlikely to prevail against the status-quo pressures that keep a system on its current trajectory.

A key opportunity for design to contribute to changemaking is by taking up the work of translating imperatives from larger change initiatives into material that might shift daily habits toward more resilient practices. In describing TD, Kossoff (2015) put forward the hypothesis that designing offers a specific and useful skill for shaping behavior at the level of the everyday. Bosch Gomez and Qazi (2019) captured the strength that designing brings to this endeavor, stating that "design is the conceptual and physical connector providing tools for what Scarry would refer to as 'making-up' –the ability to creatively imagine alternatives to present realities– and 'making-real' –materializing those alternatives (Scarry, 1987)". A guiding rationale for this approach in TD is that "socio-cultural practices are the basic unit for design, and transitions, and transition management, are the basic points of design intervention" (Mazé *et al.*, 2011, p. 1). With this in mind, transition designers are encouraged to consider that "... any new value –ecological or social sustainability as a new 'meaning' for instance– will not 'take' unless it can be materialized into devices that significant groups of people have the capacity to use habitually" (Tonkinwise, 2015).

The value and importance of amplifying, rather than recreating good work that is already happening, is a theory of change with a meaningful presence in the TD literature. Designers are known for having a proclivity toward creating anew. Yet, in social transformation, we must also meaningfully rely on, learn from, and celebrate with people who have been embedded in the context and have the knowledge to design from it. This is the work of a just TD intervention. A foundational TD provocation written by Irwin *et al.* (2015) stated that "Transition Designers…amplify and connect grassroots efforts undertaken by local communities and organisations." This approach provokes and supports large-scale change by providing support and attention to useful work that is already in and of place.

Working with Theories of Change

To help designers explicate our theories of change, we offer a set of prompts stemming from the themes of situate, reframe, and intervene. TD practice urges us "to become life-long learners who look outside the disciplines of design for new knowledge" (Transition Design Seminar, 2021c) As such, the following prompts are offered as a reflective tool to examine how different theories of change might operate in our work.

Examining How we Situate

Considering these questions can help us, as designers, to recognize that our situatedness may not always authorize us to intervene. This is the power of explicating our theories of change. Further, we must confront how our situatedness might help us improve the systems we wish to change but might also further entrench long-held power dynamics. The entangled factors of structural inequality (race, class, gender, ability, etc.), geography, partial knowledge, and uneven power can influence these possible outcomes. The following questions may be used for reflection as an individual and/or as a collective, depending on the context of the work under consideration. How does my experience/situatedness authorize me to intervene? What experiences have shaped my perspective on the world, on relationships, and on this challenge?

- How will I account for my privilege in this space? How will my oppression show up in this space?
- What is my relationship to this place? Do we know enough about the local context? How will I overcome any geographic and social distance?
- Will we work in ways that define a geographic boundary? How do we do that while embracing the complexity of distance-enablization and complex global interconnectedness?
- Who is considered a designer in this work? What types of expertise will be sought and valued? How will we prioritize the experiences of people who are most proximate?
- How will those most affected share leadership in this changemaking process?
- How can we ethically embed ourselves in new communities? How can we take on new lifestyles or worldviews? How much are we willing to change as we engage? How long will we stay? What is the impact of our presence?
- How do we behave in ways that respect the network of connections that surround us and the problem space?
- How can we be open to new ideas and other ways of knowing?

Examining How we Reframe

A strength of bringing a design perspective to this work is to draw new connections that reveal additional viewpoints. Designers may facilitate activities that gather, rearrange, and share wisdom from multiple experiences. However, there is only a limited scope of knowledge that a single person can hold. As such, it is essential that transition designers work in relationship with others who are proximate to the system, which will eventually be the

site of a designed intervention. To reframe, we understand that transition designers must work in relationship with people of many lived experiences and transdisciplinary perspectives, and that the process must be collaborative, explore multiple levels of scale, and engage longer time horizons. Here, collaborators in a change making effort may want to consider the following questions:

- From where do I know? What do I know I know? What do I know that I do not know?
- Whose experiences are we valuing? Who is considered an "expert"?
- How do we understand the history around this context and the forces that have kept it in place? How will we factor in and design with awareness of historical contexts that entrench and perpetuate harmful dynamics?
- How do we allow for multiple lived experiences and various personal and cultural perspectives to show up in the work?
- How will this project investigate the past, present, and future? How might we reorient to a more dynamic timescale? How will those who come seven generations from now experience the world we are designing for? What does it mean to be a good ancestor?
- How will we broaden our sense of time? Do we agree on how to conceptualize temporality?
- How will we develop visions of the future? How can these visions motivate and direct spaces for intervention?

Examining How we Intervene

There are many ways to introduce change into a system. The TD approach is to work slowly and iteratively in a community to make change over long time horizons. For example, we might choose to intervene in ways that might amplify rather than recreate. In this context, to develop an explicit theory of change in our TD work, we should consider some of the following prompts:

- In what ways can we identify, value, and amplify the good work that is already happening without appropriating it?
- What types of interventions do we see as compelling, useful, and possible? What level of scale will we consider (from everyday, household behavior to societal scale)?
- How might those who we include in the process shape what types of interventions are considered?
- Will we seek to shape change at different levels of the experience simultaneously? If so, how? Do we believe that more than one level of intervention is needed to achieve a paradigm shift? Is our project scoped accordingly?
- What does it mean to see design work and interventions as unfolding over time?
- How much time can we spend to intervene, observe, and iterate? Who will stay with the challenge for the long term?
- How broadly will we look for interventions?
- To what levels of scale will we focus?

- If our challenge is connected to every other challenge, how will we define the boundaries of our interventions?

Conclusion

Whether made explicit or not, theories of change inevitably shape the work of designers. We believe that designers who work to bring about systems level change must develop a muscle for turning implicit theories about change into explicit stances. This paper has asked how we might explicate the theories of change that operate in TD work. In this context, we discerned three types of action present in many of these theories: situate, reframe, and intervene. By breaking down our work in this manner, we have sought to identify possibilities for the continued development of theories of change in TD work. Moreover, beyond the questions we offered above, we should also, for example, engage in a deeper analysis of the theories of change that are being developed through doctoral research and in TD-aligned interventions. Additionally, we encourage more community dialogue to develop an agreed upon understanding of the definition of theories of change in TD. Since TD work is inherently collaborative and in community, we must develop a practice and process for articulating our theories of change, including our assumptions and blind spots, in pursuing change processes.

Meanwhile, another way to strengthen our theories of change is through continued dialogue across disciplines and social movements. White (2015) and Escobar (2018) both remind us that design is only one of the many tools needed for transitioning: "We need transition design, but we also need complimentary [*sic*] transition moments to now occur in sociology and anthropology, political economy, transitional political ecology, and in many other places to move us forward". Further, we are encouraged by writing on TD suggests that "Theories of Change within the Transition Design framework are proposed as a continually co-evolving body of knowledge that challenges designers to become lifelong learners who look outside the disciplines of design for new knowledge" (Transition Design Seminar, 2021c). Moreover, outside of design, particularly in social movements, local nonprofit organizations, and community-organizing spaces, there is a deep legacy of meaningful community engagement in change work. We must learn from and with these efforts.

Both deeper self-reflection within TD and continued engagement beyond the field will help us make the most of our existing capacities to situate, reframe, and intervene. For anyone traveling along or intersecting with the TD pathway, we hope that pausing to think critically about one's theories of change will help to make change processes more inclusive, just, and effective.

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Resumen: El marco del Diseño de Transición (TD) exige la integración de teorías de cambio al diseñar cambios a nivel de sistemas. Mientras tanto, una teoría del cambio describe la relación entre las acciones realizadas y los resultados obtenidos en el proceso de iniciar el cambio. Este artículo recomienda desarrollar la capacidad de los diseñadores de transición para explicar las teorías de cambio que operan en nuestra investigación y práctica. Con este fin, los autores disciernen temas operativos (situar, reformular, intervenir) que se pueden encontrar en el trabajo de TD y ofrecen indicaciones para ayudar a los profesionales a comprometerse con las teorías del cambio en su trabajo.

Palabras clave: Teoría del cambio - Teorías del cambio - Diseño de Transición - Cambio social - Cambio de sistemas

Resumo: A estrutura de Design de Transição (TD) exige a integração de teorias de mudança ao projetar mudanças em nível de sistemas. Enquanto isso, uma teoria da mudança descreve a relação entre as ações tomadas e os resultados obtidos no processo de iniciar a mudança. Este artigo recomenda desenvolver a capacidade dos designers de transição para explicar as teorias de mudança que operam em nossa pesquisa e prática. Para tanto, os autores discernem temas operacionais –situar, reformular, intervir– que podem ser encontrados no trabalho de DT e oferecem sugestões para ajudar os profissionais a se envolverem com as teorias de mudança em seu trabalho.

Palavras-chave: Teoria da mudança - Teorias da mudança - Design de transição - Mudança social - Mudança de sistemas.