

Jun 25th, 9:00 AM

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Hillary Carey
Carnegie Mellon University, United States of America

Madeline Sides
Carnegie Mellon University, United States of America

Erica Dorn
Carnegie Mellon University, United States of America

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Citation

Carey, H., Sides, M., and Dorn, E. (2022) Articulating theories of change towards more just and transformative design practices, in Lockton, D., Lenzi, S., Hekkert, P., Oak, A., Sádaba, J., Lloyd, P. (eds.), *DRS2022: Bilbao*, 25 June - 3 July, Bilbao, Spain. <https://doi.org/10.21606/drs.2022.626>

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Articulating theories of change towards more just and transformative design practices

Hillary Carey*, Madeline Sides, Erica Dorn

School of Design, Carnegie Mellon University, USA

*corresponding e-mail: hac@andrew.cmu.edu

doi.org/10.21606/drs.2022.626

Abstract: In any collaborative change-making process, team members hold individual, and often differing, ideas about how change happens. These ideas may address whether to work top-down or bottom-up, what leverage points are to be targeted, or who should be involved in the work, in what capacity, and when. If these differences in perspectives are not examined and discussed, they can lead to conflicting actions, lessen positive impact, and may even do harm. Mapping “Theories of Change” is an approach that has been used to clarify strategies for initiating change across many sectors. Yet, when it comes to complex design engagements, we propose that a different approach is needed. Rather than utilizing a formal modeling process, we believe that teams can find alignment and build more productive working relationships through conversations that engage and clarify beliefs about transformation. In this paper, we propose that designers should acknowledge, reflect, and discuss change theories within collaborative teams. We offer a framework to support dialogue about change that reflects three common phases of designing: *Situate & Relate, Understand & Re-frame, Intervene & Observe*.

Keywords: theory of change; design for transitions; design methods; community design

1. Introduction

Design is a powerful tool that shapes the world around us. Yet, when done uncritically, may work to uphold the status quo rather than to support positive transformation. One pitfall to be avoided may be the under-recognition of the importance of change theories in design work. Without reflecting on how we believe effective change happens, designers can fall into the trap of thinking of their work in a vacuum, atomistically, rather than as a connected element in a complex system.

In authoring this paper, we expand the conversation initiated in a previous collaboration about how theories of change are identified, made explicit, and acted on in the field of Transition Design (TD) (Sides et al., in press). As doctoral researchers in a university design program that emphasizes systems change, we sought to extend the call made by those in TD to engage new theories of change when designing in community (Transition Design Seminar,



2021c). Through studying the concept of theories of change in an anthropology course, the three authors sought to use reflexive theories more actively in our own design approaches. To do this, we first reviewed best practices on theories of change in other fields. We then conducted a review of recent design publications with the terms ‘transition’ and ‘systemic design’ and ‘design for systems change’ in their titles, to identify explicit and implicit theories about change in their descriptions. From there we conducted an analysis of change proposals and used an affinity diagramming process to identify patterns and inform the framework described in this paper.

Through an investigation of applied change theories in anthropology, education, and development, we propose that systems-level design projects would benefit from examining and articulating individual, group, and societal beliefs about how projects can bring about change. These theories will always shape design strategies, regardless of whether they are reflected upon. Thus, to engage in responsible and effective change work, it is necessary to examine and articulate our assumptions about how we believe change processes will be successful.

Theories of change approaches are rare in design literature. In the systemic design movement, Murphy & Jones (2020) are exploring ways to combine tools for systems mapping with formal Theory of Change (ToC) approaches. Their method expands the linear approach of ToC, first developed for use in program evaluation, to better reflect the dynamics of change in the complex contexts where design work takes place.

Design education has not historically prepared designers for these kinds of assessments. To illustrate this point, we offer a reflection from one of the authors about a design initiative she worked on for several years:

At the beginning of the project, my design team and I were told that the problem we would be working on addressing was a lack of access to a particular type of advanced medical therapies in low-resource care settings.

Education in human-centered product design and engineering enabled my team and me to, over the course of several years, design and fabricate an excellent medical product. The product was uniquely appropriate for the setting we were taught about and solved the problem, as it had been framed to us.

However, that same education prevented us from examining the larger system. This gap in awareness, ability and positioning ultimately limited the effectiveness of the product, the scale of its adoption, and its ability to address the original problem statement.

During this project, we held what I now realize was a simplistic and under-examined theory of change. Our theory hinged on product design as the best way to address a complex, systemic problem that probably had more to do with justice than new hardware.

A systems perspective along with critical reflection on change theories reveals a much larger set of opportunities to intervene.

This experience suggests that we cannot address complex problems in our design work without engaging with the dimensions of how change unfolds. Conceptualizing design as a tool of change creates opportunities to take more responsibility for how we approach the work. Designers must learn to be aware, reflective, and critical of their own theories before approaching work with others. Critical Race and Indigenous Studies scholar Eve Tuck (2009b) conveys 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.

The call to examine and make explicit our theories of change in design is not just a matter of advancing design theory – it’s also a way to increase a project’s chances of success (Tuck, 2009a).

We propose that clarifying the role of change theories in designing for systems change can make our work more effective. Over time, designers develop their own theories of change about how design relates to complex change and may carry these theories into their future design projects. The formalized “Theory of Change” (ToC) model may be too formal for how most systemic design projects engage with the change process and is not the only way to use theories about change in collaborative work. A process of applying lessons learned can make designers and design teams stronger.

Reflecting on and articulating change theories is not just for designers, but for the full collaborative team. Community organizer adrienne maree brown reminds us how important collaboration and emergence are in transformation work: “The more people who co-create the future, the more people whose concerns will be addressed from the foundational level in this world” (brown, 2017, p. 158). When working alongside, and sharing power with, community partners, it is helpful for designers to learn to make their own theories of change explicit and clear, and to hold space for others to do the same.

To help support self-reflection and conversations amongst project partners, we offer a three-part framework that designers can use as a structure to reflect on individual and collective beliefs about the systems and society around them. This framework is a complement to our earlier model (see Sides et al., in press) to support reflection and dialogue in designing for enduring positive social and ecological change.

2. Background

We believe that the most essential aspect of change theories for design praxis is to be ongoingly conscious and evaluative of our process and its impact. In designing for systems change, we must extend that reflective practice to include a consideration of how we believe

that design brings about change. One way to support that reflection is to understand a theory of change as an idea or narrative about the relationship between actions taken and outcomes yielded in the process of initiating change (Connolly & Seymour, 2015).

One of the most ubiquitous theories of change 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 group's method is often utilized by organizations engaged in nonprofit and social change work, and is referred to with capitalization, i.e., Theory of Change (ToC). The process may involve conversations and consensus-building and often produces a diagram or codified output (Reinholz & Andrews, 2020). It is often applied in grant-making context as an accountability mechanism for funders and communities.

The Theory of Change practice can support important conversations about change and yield a shared perspective that scaffolds future action. Yet, there is an allure and danger in portraying change processes so simply: "The result of this process is conventionally a linear map of outcomes" (Murphy & Jones, 2020). Complex design projects rarely unfold in such predictable and definable ways. In the systemic design movement, Murphy & Jones have been exploring ways to combine tools for systems mapping with formal ToC approaches. Their method helps the linear approach of ToC more accurately reflect the dynamics of change in the complex contexts where design work takes place. We also draw inspiration from Michael Quinn Patton's approach to evaluation in complex social interventions: Developmental Evaluation. He explains, "The evaluator's primary function in the team is to infuse team discussions with evaluative questions, thinking, and data and to facilitate systematic data-based reflection and learning in the developmental process" (Patton, 2019, p. 300).

Like the systemic design movement, Transition Design brings theories of change to the fore, proposing that new theories of change are needed to break from the status-quo thinking that has contributed to many wicked problems. The current Transition Design Seminar website defines a theory of change in the TD context as "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" (2021d). Transition Design urges designers to learn to work with the emergence of wicked problems in ways that can be understood over time, and to cultivate familiarity with an evolving landscape of change theories from outside of the design discipline.

We propose that designers come to view the discussion and evaluation of change theories and beliefs as a collaborative and emergent process that need not result in formal alignment or be captured in a model. Rather than focus on tidy activity outputs, we argue that the acts of reflection and discussion of change theories hold the most value. adrienne maree brown describes co-operating without absolute agreement: "I find that my best work has happened during my most challenging collaborations, because there are actual differences that are converging and creating more space, ways forward that serve more than one worldview"

(brown, 2017, p. 159). We propose that the conversation that leads to reflection and articulation is more essential to collaboration than agreement or documentation.

This paper moves away from the process-mapping of formal Theories of Change altogether and builds on Transition Design's call to engage with ideas actively and continually. Personal reflection and participatory discussions about how team members believe that complex change happens can be an essential part of any change-making process. We encourage designers to 1) recognize that design is a change theory itself, 2) reflect on our own beliefs about how change happens in every project, and 3) facilitate dialogue with collaborators to coalesce and make explicit the many operational theories of change.

3. From implicit to explicit

Recognizing that any way of designing is, itself, a change theory can be a good starting point for designers to reflect on the beliefs that we hold about how change unfolds. In describing designing for transitions, author, scholar, and practitioner Arturo Escobar states, "Most contemporary TDs posit a radical cultural and institutional transformation—a transition to an altogether different World" (2018, p. 140). Transition Design, and other emerging forms of design for systems change, are themselves theories about how change happens.

A key point in research is to distinguish between theories of change that are "implicit" or "explicit" (Connolly & Seymour, 2015). Implicit theories of change are our unconscious or tacit beliefs about how change occurs (Kezar et al., 2015). Tuck (2009a) describes how *implicit* theories of change are ingrained in our identities and orientations as people and largely remain unexamined or even subconscious. An *explicit* theory of change is one that "has been reflected on and integrates research on change" (Kezar et al., 2015) to account for, prescribe, or challenge change processes.

When working and sharing power with community partners, designers must learn to make theories of change explicit and clear. Scholar and practitioner Nikki Wallace urges more understanding of our partners as we engage in design projects: "Both autonomous design and transition design are reliant on collaborative processes for their success and require an understanding of power dynamics and group dynamics in order to practice with sufficiency" (2019, p.341). As such, a change-maker's job could be to scaffold conversations about change theories in community/systemic designing, creating through dialogue what communications scholar Klaus Krippendorff calls "social systems with a life of their own" (2006, p. 25). We want to invite designers to consider how working in a team that lacks full alignment of change theories might be a generative scenario.

Most of us are not aware that we hold certain assumptions until we are faced with the assumptions of another. Dialogue offers the opportunity to observe and examine these differences. Krippendorff, citing physicist and dialogue theorist, David Bohm, reflects:

Being in dialogue means a suspension of judgment (Bohm, 1996, p. 26) and of claims to be right or superior to other participants in the service of listening to what is said,

acknowledging each other's contributions, and building on them. [It is] an inherently creative co-process that is neither attributable to any one individual nor exclusive of any one participant (Krippendorff, 2006, p.259).

For designers today, sharing our mental models and assumptions about how change happens is a necessary skill. There are many tools to support vulnerable and transformative conversations, such as Nonviolent Communication (Rosenberg, 2003), Emergent Strategy principles (Brown, 2017), developing 'rules of engagement' (Ermine, 2007).

Alignment does not mean that we can only collaborate with people whose ideas match our own perfectly, or that everyone must experience dramatic change and come to hold the same theories. Instead, it means we allow our ideas to develop through the process of dialogue as we forge a shared understanding of each other. In this process, the sum becomes much greater than the parts as we surface a cacophony of ideas that can harmonize into an understanding of where we might go together in the changemaking process, and how.

4. A framework for engaging change theories

The framework we use here reflects a theory of change about how design might approach complex challenges. We imagine three distinct stages that overlap and interconnect: *Situate & Locate*, *Understand & Reframe*, and *Intervene & Observe*. This developing model builds from an earlier author collaboration (Sides et al., in press) and, like any new proposal, is inevitably complete. We invite discussions that might advance our collective understanding of theories of change that support wise and ethical change in the world.

4.1 *Situate & relate: Orienting ourselves within a system*

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. We use situatedness in this framework to mean "an understanding of oneself in relationship to the systems in which one is nested" (Sides et al., in press). Cultural Studies professor and intersectional feminist, Eugenia Zuroski, 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?" (2020, n.p.). How we define and prioritize proximity in mitigating a wicked problem significantly influences the change process. Christine Ortiz Guzman uses the phrase, "those most proximate to the problem" (HBS Digital Initiative, 2021). This type of situating prepares us to identify our own implicit theories of change, a first step towards making them explicit.

In design, consideration of social and political situatedness is a growth edge. Beyond the geographic and systems contexts which design is increasingly aware of and engaged with, an attention to oppression and access should also inform project structures. Design practitioner and educator Jennifer Rittner describes 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"

(2017, n.p.). As the Decolonising Design movement emphasizes, Design has histories of upholding symbolic violence and cultural oppressions (Boehnert & Onafuwa, 2016, Schultz et al., 2018). To break this pattern, social and political positionality must be acknowledged and evaluated in design work (White, 2018, Boehnert et al., 2018, Wallace, 2019). The lens of structural oppression should be engaged to consider the histories of both design as well as specific local challenges.

4.2 Understand & reframe: Investigate the challenge

The sense-making work of research and outreach is essential to develop understanding of the complex, systemic, and deeply entrenched challenges that design for transitions and systems change seeks to address. Transdisciplinarity and multiple viewpoints is needed for any collective to grasp the intricacies and vastness of socio-technical problems. Murphy & Jones describe this as becoming “‘students of complexity’ [McGowan et al., 2014] who appreciate the need to synthesize multiple—sometimes conflicting—perspectives in complex work via multiple methodologies and epistemologies” (2020, p. 2). It is important to take time to appreciate the knowns and unknowns in the context we approach.

Understanding systems as interconnected and interdependent is an essential approach, and a change theory, in designing for transitions (Capra & Luisi, 2014). Per Tonkinwise, “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” (2015, p.2). Joanna Boehnert highlights 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” (2019). In this way, we must draw boundaries around our challenge, and embrace the connections that surround it.

Change theories about *reframing* encourage dynamic, long term, and often nonlinear notions of time to uncover paths to positive systems change. We have previously defined reframing as “the active and collaborative work of developing a new perspective on a problem and the potential beyond it. [Reframing] often happens through a series of synthesis and visualizing activities” (Sides et al., in press). Bosch Gomez & Qazi discuss 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” (2019, p. 292). Design perspectives can encourage new insight via new frames.

4.3 Intervene & observe: Making change through careful action

The work of intervening, disrupting, and redirecting design toward positive systems change requires time and patient observation. A common change theory in systemic design approaches is based on the observation made by Rittel & Webber that the complexity of these dilemmas is unknowable until we begin to dive in, and that only by attempting to disrupt

them can we gain understanding of how they work (1973). This type of change unfurls over time at a slower pace than the smaller-scale interventions with which designers, particularly those in the commercial sector, may be more accustomed. Change in living systems is unpredictable; we can only intervene and then observe what happens (Mitchell, 2002). As Tonkinwise puts it, “A Transition Designer designs something not to be an end-unto-itself, a final solution to a problem, but to open up subsequent opportunities” (2015, p. 11). Rittner offers, “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” (2017, n.p.).

Participatory Design and Transition Design both use the term “intervention” to describe activities that purposefully seek to alter the trajectory of a system of concern (Kensing et al. 1998, Garrigou et al. 1995, Transition Design Seminar, 2021a). Bosch Gomez & Qazi capture the strength that designing brings to this endeavor: “Design is the conceptual and physical connector providing tools for what Scarry [1985] would refer to as ‘making-up’—the ability to creatively imagine alternatives to present realities—and ‘making-real’—materializing those alternatives” (2019, p. 292). A guiding rationale for this approach is that “socio-cultural practices are the basic unit for design; and transitions, and transition management, are the basic points of design intervention” (Mazé, Gregory & Redström, 2011, p.1). In this way, designers can contribute to making concepts material so that they can shape and reshape actions.

Because of the long-term nature of designing for societal transitions, acting within such complex problem spaces is seen more as careful experimentation than as crafting a conclusive solution. Design critic Damian White draws on 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” (2018, p.10). Rittner describes it this way: “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” (2017, n.p.). In social design, considering long timeframes, where we intervene and then observe what occurs, is helpful in grappling with and reframing such challenges.

A theory of change that appears often in complex systems is the belief that one lone intervention is unlikely to prevail against the status-quo pressures that keep a system on its current trajectory (Sides et al., in press). 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, Kossoff, Tonkinwise & Scupelli, 2015, p.6). This approach requires 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, 2021b).

5. Dialogue considerations and prompts

The framework introduced above would unfold over time as teams work together toward complex change. We propose that individual reflection and group dialogue can be a valuable tactic for reflecting on change theories before and during project work, as well as after completion. However common it is for humans to be in conversation, it turns out, we are rarely in dialogue, according to physicist David Bohm (Bohm et al., 1991). To engage in dialogue, we must be willing to be in a learning mindset as opposed to a proving mindset. When we can engage in dialogue, we then invite opportunities to develop new understanding, shared agreements, and more considered approaches to designing change. Absent these dialogues designers may be unintentionally coercive “leaders who do not act dialogically but insist on imposing their decisions, do not organize the people -- they manipulate them. They do not liberate, nor are they liberated; they oppress” (Friere, p.178). We offer the following considerations and questions below as a starting place to begin seeding dialogue within teams to bring about more co-created and explicit theories of change.

5.1 Prepare for dialogue

Here are some suggestions for holding conversations about theories of change with project partners.

- Bring design skills to the process of designing human interaction and dialogue in ways that create trusting spaces for authentic sharing and listening. Carefully consider the sequencing of questions and share-outs and the methods for reflecting.
- Communicate in various configurations ranging from inner reflective dialogue, pairs, triads, smaller and larger groups. Beginning with smaller, more intimate discussions can build trust before opening to larger group dialogue.
- Co-create shared agreements around participating in dialogue that create optimal conditions for safer environments for open dialogue. Though agreements can be helpful, we can never assume they will work operationally. Agreements become more useful over time as they are practiced through collective accountability, consistency, and refinement.
- Dialogue is more an act of listening than speaking, practice the art of listening by reflecting back what others share.

5.2 Reflecting on change theories

Situate & relate: WHO?

Inevitably there are power imbalances in any group that cut across intersectional lines of class, gender, race, sexual orientation, and more. Each collaborator brings culturally ascribed positions of power, privilege, oppression, and difference to the process of designing change (Jacobson & Mustafa, 2019). This makes it essential to create space for conversations about

how we situate and relate to the change we seek to make. The following questions offer a territory from which to begin dialogue:

- Who am I in relation to this issue, this context, this history, this place?
- Who has lived experience and wisdom in this context?
- Who will shape the structure of this project, make decisions, determine the timeline?

Understand & reframe: WHAT?

The following prompts invite teams to assess their contextual relatedness and to gather deeper insights and connections where needed.

- What are the economic, political, cultural, and systemic structures at work in this context today?
- What needs to be known before we can move forward?
- What framing might shape our view on the strategy forward?

Intervene & observe: HOW?

The following questions seek to investigate the process by which a team begins and tracks an intervention overtime.

- How will we define the limits and areas of our interventions, knowing that our challenge is connected to every other challenge?
- How long will we allow for any given intervention to unfold?
- How will we assess success and progress?

The structure and sets of questions we offer are incomplete and can be expanded by engaging with the work and methods of Paolo Friere, adrienne maree brown, Arturo Escobar, Sascha Costanza-Chock, Bagele Chilisa's *Indigenous Research Methodologies* (2019), *The World Cafe* (Brown et al., 2005), *Theory U* (Scharmer, 2009), and many others.

6. Conclusion

Theories about change always shape the work of designers, whether those theories are made explicit or not. In collaborative work, designers must cultivate the capacity to translate implicit theories about change into explicit stances. Engaging in dialogue can support designers to recognize that our ideas about how change happens may not always be shared by those around us. As adrienne maree brown reflects on working with collaborators who hold differing theories she credits success to “the space between the collaborators at the core and learning to communicate and ideate within that space” (brown, 2017, p. 109). These efforts increase the transformative potential of our work.

Engaging design in systemic work can facilitate new connections and create space for the sharing and synthesis of wisdom from multiple experiences. We have proposed a framework

to support this sensitive work: *Situate & Relate*, *Understand & Reframe*, and *Intervene & Observe*. The process for uncovering theories of change in design work as proposed in this paper is continuous and dynamic in practice. As per Reinholz & Andrew, “Ongoing projects constantly reconsider and revise their theory of change as they gather data that indicates whether and how their efforts are working” (2020, p.3). This challenge is not unique to design. Those who lead work in social movements, nonprofits, and community organizing spaces often hold deep wisdom for meaningful community engagement in change work that designers can learn from and alongside.

As designers of every discipline continue to recognize design’s interconnected impact on systems, we develop a deeper understanding of the ways in which our often-buried assumptions manifest in the world around us. We believe that change processes can become more inclusive, just, and effective by taking the time to reflect on and share theories of change. We hope this invitation to designers to uncover and strengthen their theories of change will enhance their abilities to effect lasting positive change.

Acknowledgements: The authors would like to thank Dr. Noah Theriault, professor of anthropology, for catalyzing this work in his course “How (Not) to Change the World” at Carnegie Mellon University and for his contributions in co-authoring earlier work on theories of change.

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About the Authors:

Hillary Carey is a PhD researcher studying design futures and racial justice at Carnegie Mellon University’s School of Design and is a design leadership coach with DesignDept.co.

Madeline Sides is a PhD researcher studying the connections between design and environmental change at Carnegie Mellon University’s School of Design.

Erica Dorn is the founder of Suburb Futures and a doctoral researcher in Transition Design at Carnegie Mellon University.