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Strange bedfellows: Design research and behavioral design

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Abstract: Behavioral design—the application of behavioral economics principles to real-world challenges—has achieved success across a variety of domains, yet its scale and effectiveness has been limited by its narrow focus on behavioral change to frame problems. While some have suggested that joining forces with the social sciences and other analytical problem-solving methodologies might help overcome its perceived deficits, the more generative and synthetic discipline of design research is particularly well positioned to be a complementary partner due to design's systems orientation and humanity-centered perspective to issues of context, evidence, and problem framing. This disciplinary integration has the potential to be particularly valuable with regard to so-called "wicked problems," which tend to resist analytical efforts. In contributing a more expansive lens with which to surface and develop potential hypotheses, design research shows great promise in its ability to partner with behavioral design to take ground on these complex challenges.

Keywords: design research; behavioral design; interdisciplinarity; framing

1. Introduction

Applied research from behavioral science—frequently referred to as "behavioral design"—has been effectively applied to a variety of domains, from public policy and health care to financial services and sustainability. Grounded in empirical research into human behavioral tendencies rather than the design methodology implied by its name, and applied most regularly to last mile behavioral change problems "for good" (Soman, 2015; Thaler & Sunstein, 2008), behavioral design offers the promise of informing smart-on-paper solutions with insights about how people *actually* behave, rather than what they say they will do. Despite its origin in the interdisciplinary collision of insights from cognitive psychology with economics' assumptions of behavioral rationality, behavioral design itself has been somewhat slow to embrace other fields. More recently, however, it has begun to engage more with a range of social sciences in the interest of seeking complementary analytical

perspectives, particularly in the realm of public policy.

But is this sufficiently bold? Behavioral design practitioners have increasingly faced a reckoning with regard to its strengths and limitations, in particular its limited ability to scale solutions in the absence of generalizability principles, an over-emphasis on individual behaviors over those of social communities or systems, and the desire to move earlier in the design process to better address upstream root causes and "wicked" problems (Sanders, Snijders, & Hallsworth, 2018). Extending an invitation exclusively to the social sciences risks introducing a self-imposed barrier to these goals; while these nascent partnerships promise to stretch behavioral design's perspective to some degree, their shared grounding in theory-driven, analytic methodology and operational problem-solving mindsets threatens to deliver more of the same.

In contrast, the disciplines of strategic design research and design thinking and their generative, abductive approach to problem solving has been recognized as well-suited to tackle the ambiguous, adaptive systems challenges (Buchanan, 1992) that behavioral design yearns to address. In particular, its expansive conceptions of context, evidence, and problem framing to supplement behavioral design's strengths in evidence-driven approaches and testing rigor make it a potentially formidable potential co-conspirator.

Design research is not entirely unfamiliar to behavioral design, which already incorporates limited design activities into current practice (Hampton, Leung & Soman, 2016; Tantia, 2017). However, too often this collaboration forces design research to conform to behavioral design's analytic problem-solving methodologies, rather than working in true productive tension as interdisciplinary partners. This not only reduces design's potential effectiveness when addressing individual behavioral challenges, but also prevents the intersection of these two disciplines from maturing into a truly interdisciplinary pursuit that can amplify the best of both fields.

2. Expanding context through problem framing

Behavioral design has historically emphasized discrete instances of behavioral change and an advocacy for "think small" solutions [Soman, 2015], leaning heavily on adjustments to environmental choices contexts to inform solutions. While this focus on improved choice architecture has been shown to effectively support behavioral "nudges" (Thaler & Sunstein, 2008), and there has recently been an increased appreciation for the ways in which cultural context can impact individuals' behavioral tendencies has contributed additional nuance to how and when we expect interventions to work (Banerjee, Promothesh, Mishra & Mishra, 2019; Haushofer, Jang & Lynham, 2017), it tends to neglect other important contextual considerations (Feitsma & Whitehead, 2019). This can be highly problematic when, in focusing on achieving precise and isolated behavioral change, we insufficiently acknowledge and address contextual clues that may initially seem unrelated or inconsequential, but which have outsize impact or contribute to unintended system effects.

The value of using design research to expand behavioral design's conceptions of context can

be illustrated most clearly by instances where interventions informed only by behavioral research neglected to consider important social, cultural, or personal contextual issues that are the bread and butter of design research. Organ donation, long used as an exemplar of behavioral design success, presents a clear case where this proved to be an issue: Although "opt-out" interventions can be an effective lever in increasing the number of people designated as organ donors, they are less successful in delivering the impact that actually matters—successful transplants—if they fail to consider the critical context that donor's families' often do not perceive opt-out mechanisms as a valid form of consent (Lin, Osman, Harris & Read, 2018).

The ongoing US water crisis in Flint, Michigan, where lead-tainted water supplied by the municipality has resulted in significant health issues, particularly in children who are more vulnerable to the effects of lead positioning (Green, 2019), presents another case in point. Early efforts to focus on discrete behaviors like hand washing or the use of water filters and bottled water failed to gain community traction in the absence of considering broader perceptions and barriers to adoption that had a material impact on the uptake of new desired behaviors (Stillman, 2017). In both the organ donation case and in Flint, while narrow behavioral framing in the interests of nudging behavior may well have achieved some gains, expanding the definition of what problem we are solving for through introducing design research insights would likely increase the potential success and impact of interventions.

2.1 Limitations of narrow framing

Behavioral design's urge to narrowly frame problems is inextricably tied to its disciplinary roots in a technical, scientific-method problem-solving approach, where a tightly defined focus on behavior change has multiple compelling methodological benefits. First, tackling discrete problems and last-mile behavior change effectively narrows the gap between *internal validity* gained from the specific, reproducible experimental findings that are often used to inform interventions, and *external validity*, or the likelihood that those findings are a good fit for the vagaries of real-life context (Camerer, 2011). In addition, when the delta between an original state (Behavior A) and a new desired state (Behavior B) is highly quantifiable and evaluation-ready by the "gold standard" of randomized control trials (RCTs), we can more easily compare different interventions against one another to gauge their relative success.

But while these attributes may increase researcher confidence, they also pose constraints. When complex problems are conceived of as technical issues, or when a perceived fit with analytical methodology becomes a primary determinant for problem selection, we also may create an overly reductive model that artificially limits what problems we solve for by prioritizing measurability over reality. The contextual nuance commonly surfaced through design research is often not perceived to be directly related to behavioral change efforts, and thus is often kept to the periphery where it may be inadvertently dismissed or interpreted as noise when, in fact, it is actually a critical component of the problem to solve. Research on organ donation, for example, has found that in addition to considering behavior at the family

unit, rather than that of the individual donor, the introduction of donation coordinators at hospitals may have a more significant impact on increase successful organ transplant rates (Fabre, Murphy & Matesanz, 2010; Rudge, 2018). In other words, even if opt-out default interventions that directly address behavioral change effectively increase the number of people designated as organ donors, at best they may be solving only part of a problem; at worst, their focus on behavior at the expense of other contextual conditions may mean they are solving the wrong one. This effect is amplified when solving for wicked problems, whose contextual complexity, unique composition, and multiplicity of perspectives tend to be notoriously resistant to analytical and data-driven approaches. But if the complexity and uncertainty of wicked problems resist reduction to behavioral change and methodological "fit," this should perhaps be perceived as a limitation of behavioral design methodology rather than an indication that the problem begs to be simplified.

2.2 Expanding on problem framing

In behavioral design, the notion of "framing" is characterized by "the manner in which the choice problem is presented as well as by the norms, habits, and expectancies of the decision maker" (Tversky & Kahneman, 1986, p. 257). This is typically positioned as a strategy to improve choice architecture solutions by recognizing, for example, that positioning an operation has having an 80% success rate versus a 20% chance of failing often leads to different interpretations and subsequent actions.

The notion of framing as a form of problem definition is already familiar in design (Alexander, 1977; Dorst, 2015). Much like a photographer frames a composition by choosing to include certain elements and omit others, we can actively choose to define our solution space to determine what's in and what's out. This also means designers can develop multiple frames to conceptualize the matter at hand from a variety of perspectives.

When we apply this concept to problem definition, we can establish how we conceive of a challenge, its potential solutions, and even what qualifies as a viable problem. For example, positioning urban renewal of public housing as either a congenital disease to be eradicated or as an organic community in need of cultivation (Schon & Rein, 1994) is not merely a semantic distinction but the implantation of two distinct mental models that conceptually bound what contextual considerations, proposed solutions, and resultant actions qualify as valid in radically different ways. Similarly, framing Flint's water crisis as an issue of hygiene versus one of water containing contagions (Nimishakavi, 2016) leads to two very different conceptions: the first implicitly promotes the universally recognizable binary opposition of cleanliness (good) over filth (bad), but also puts the onus on citizens to be the responsible agents of change and elides the realities of bottled water costs. The second recasts an entirely different narrative of villain (municipality as poisoner) and victim (citizenry as poisoned) and suggests more nefarious, even criminal, motives and need for reparations.

In the organ donation context, the addition of non-behavioral frames would have likely more quickly identified the disconnect between opt-out mechanisms and family wishes and the

need to expand the problem scope beyond behavior much change earlier on. An institutional frame like "Increase the number of successful organ transplants" could have delivered systems-level, strategic outcomes by suggesting that we must get donated organs in the right bodies to benefit the entire donation system in addition to individual recipients, while a human frame, such as "Help people take actions that align their personal values with the societal value of donating organs," could have focused on end users' latent aspirations and needs related to personal values and kinship—such as the fact that donor's families' often did not perceive opt-out as a valid form of consent—that was not reflected in behavioral design's narrow focus on behavior (Parsons, 2002).

3. User insights as evidence

Achieving the right unit of contextualized problem definition through this process of reframing relies on qualitative forms of evidence gained through open-ended, ethnographic methodologies that are currently under-leveraged in behavioral design. Generative design research activities can also provide valuable insight into humans' latent needs and beliefs in the same way that behavioral science research provides evidence of these latent behavioral tendencies. It's well recognized—and essentially the premise behind nudging—that what people say they want or how they intend to act does not always match their actual behaviors (Sunstein & Thaler, 2008). Qualitative explorations through design research can provide valuable contextual evidence in the form of misconceptions, a perspective on what people value, and sense of self that offer an oblique view into why this "irrational" behavior occurred.

Design's alternate conception of "evidence" also differs from traditional behavioral design methodology in that its intent is largely to generate new approaches, rather than to evaluate existing ideas to determine the chances of their probable success. In case of Flint's water crisis narrative, for example, only evaluating the incoming hypothesis that water filters and hand-washing were appropriate targets for behavioral change interventions (Nimishakavi, 2016) would have resulted in overly narrow solutions. Expanding the unit of analysis through design research approaches such as open-ended conversations allowed the team to recognize that community skepticism with regard to the government's motives and a long history of distrust toward public services would need to be addressed if *any* solution was to stand a chance of being effective (Stillman, 2017). This re-centered the focus of attention from behavioral change to the community, and solving for a human context rather than simply for a new behavior.

3.1 Human(ity) centered design

While both the organ donation and Flint water examples illustrate the value of expanding beyond individual behaviors, they also suggest a parallel need to take the biased nature of systems that develop and implement policy into account. The fact that public officials and hospital administrators are also human, and thus may also struggle with bounded rationality

(Simon, 1957), is both unsurprising and crucial to recognizing when solutions might perpetuate or even amplify existing system inequities.

As an analytic, theory-driven problem solving approach, behavioral design tends to work top-down from principles derived from published experimental findings. While this reliance on empirical results can bolster confidence in proposed interventions, it often inadvertently excludes evidence from the citizens or end users at the receiving end. This can result in policy based on an assumed shared base of values that does not exist, or smart-on-paper solutions that fail to consider contextual and evidentiary elements that are fundamentally obvious to those on the ground but harder to recognize from above.

Unlike design research, which typically acknowledges the need to solve challenges at a systems level, behavioral design has traditionally been concerned with individual behavioral biases and tendencies. In the case of more complex or "wicked" problems, therefore, the use of design methodologies may be especially beneficial. In particular, methods from "systems design" such as value webs (Kumar, 2009) leverage points and feedback loops (Meadows, 1999, 2008), and the examination of multiple forms of capital and the flows between them in the context of circular economies (Flora, Flora & Fey, 2004; Noguiera, Ashton & Teixeira, 2019) can help practitioners break down complexity and construct effective solutions for emergent and adaptive systems, allowing solutions to achieve a balance between capacity-oriented top-down resources (such as financial and infrastructural assets) and human, social, and cultural values that are more likely to be defined bottom-up by from within communities.

4. Strange bedfellows: Achieving disruptive interdisciplinarity

While it is generally accepted that a primary criterion for interdisciplinarity is the integration of knowledge from multiple disciplines (Jacobs & Frickel, 2009; Barry, Born & Weszkalnys, 2008; Choi & Pak, 2006), some suggest that achieving true interdisciplinarity requires meeting three additional attributes: application to real-world challenges, a comprehensive perspective, and a fundamentally disruptive element (MacLeod & Nagatsu, 2018).

Even with its closer cousins in the social sciences, behavioral design faces potential barriers to this deeper form of interdisciplinarity that may be partly explained by the nature of its origins. Two constructs have historically characterized the intersection of economics and psychology: the first positions this hybrid as a parallel, but distinct, approach to traditional economics [Simon, 1988], while the second situates this emergent discipline as a counterpoint to economics' rational norms in order to explain "irrational" deviations (Sent, 2004; Feitsma & Whitehead, 2019). As a representative of the latter school of thought, this creates something of a bind for behavioral design. By positioning itself in contrast to economics and focusing on exceptions to the rule where rationality fails to hold, other fields that have little to say about this "rational versus irrational" duality may simply seem irrelevant (Bruch & Feinberg, 2017) to its *raison d'être*.

However, behavioral design's receptivity to fully partnering with design is further limited

by another hidden-in-plain-sight issue: attempts to expand the roster of potential partners have historically tended to include only other analytical disciplines—public administration, sociology, anthropology, political science, and cultural studies—to the table (Feistma & Whitehead, 2019). This implicitly designates an analytic and empirical mode of inquiry as the singular legitimate approach, and suggests that only analytical mindsets and methods need apply. Intended or not, the resulting implication is that potential partners are doubly bounded, first by behavioral design's worldview and mantle of "not economics," but also by the assumption that only the social sciences and other fields grounded in an analytical approach are viable candidates for interdisciplinarity.

Yet introducing behavioral mechanisms and choice architecture in the context of real-life environments is a *synthetic* task that benefits from generative sensibilities, not merely analytic ones. Embracing under-defined areas of context and a richer diversity of qualitative and quantitative evidence is essential to our ability to construct, not merely select, solutions that are both effective and equitable (Schon & Rein, 2005; Winner, 1980). If we are to disrupt behavioral design methodology to achieve more impactful ends, it may very well come from being more integrative and recognizing where invention can extend insights from research (Golsby-Smith, 1996). In other words, just because design did not receive an invitation to the table doesn't mean it can't crash the party.

4.1 A comparative model for problem solving

As noted above, design is not entirely absent from behavioral design, showing up in the occasional call for "empathy" or user insights (Tantia 2017; Soman, 2015). Yet while design methods can still provide value in this limited form they are clearly subordinate, playing a support role in service of what is still an analytical problem-solving approach, and thus not truly interdisciplinary (Barry, Born & Weszkalnys, 2008). As a result, this approach is unlikely to upend behavioral design's core assumptions or methodological approaches.

How might strategic design research play a more impactful role as partner and provocateur? A closer look at the methodological arcs of behavioral design and strategic design can provide some insight, through a simple framework that positions notions of abstract and concrete against the activities of making and thinking (Kumar, 2012) depicting quadrants in which we can situate common problem-solving activities:

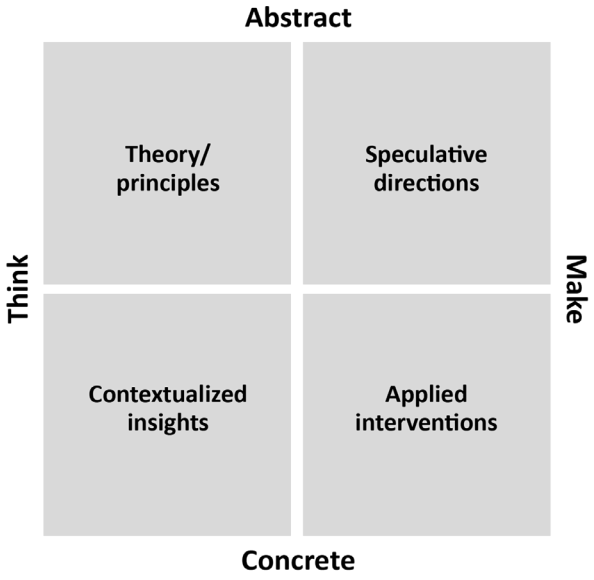

Figure 1 *A model for mapping problem-solving processes*

Visualizing the problem-solving arcs of behavioral design and strategic design illustrates how these paths contribute to different processes, and subsequently to different mindsets and outcomes. Given that behavioral design was developed largely as a response to economics, it is useful to include a conceptual model for economics as well.

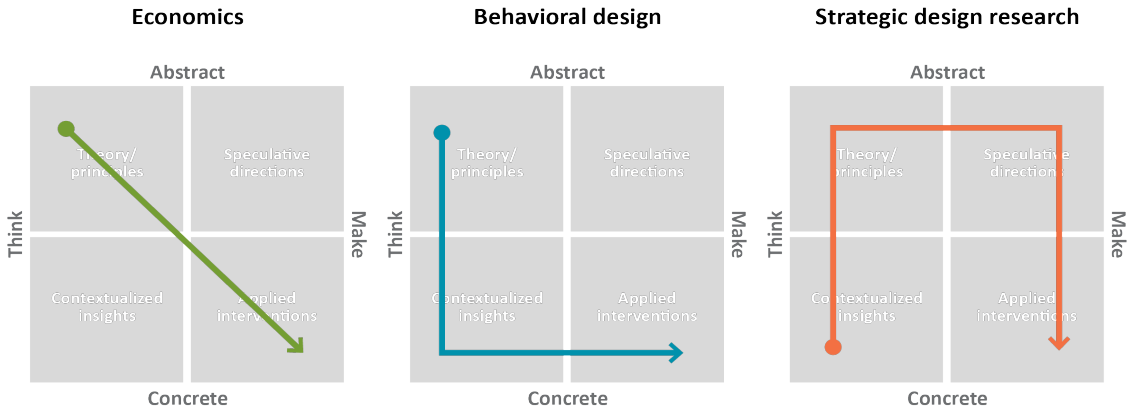

Figure 2 *Economics, behavioral design, and strategic design research process arcs*

Where economics moves swiftly and optimistically from theory (UL) directly to application (LR), behavioral design uses the scientific method, in which theory developed through lab experiments (UL) is combined with problem-specific contextual insights (LL) to inform hypotheses for potential solutions that can subsequently be evaluated (LR). In contrast with this analytic approach, design first begins with sussing out latent needs of individual stakeholder groups and problem framing (LL). Rather than directly feeding solution development, as it does in behavioral design, these findings from generative research are

first abstracted into more general insights and thematic guiding principles (UL). Only after creating these design principles do practitioners devise speculative, directional conceptions of what could be (UR), which then inform specific solutions that can be prototyped and tested (LR). What it lacks in first principles, design gains in its ability to synthesize concepts from disparate inputs and prior examples to inform nascent perspectives. In other words, rather than applying *known* principles to *known* problems in search of "best fit" solutions, a design lens allows us to use *generalized* criteria that can help shape heretofore *unknown* solutions.

This may be especially useful in the context of wicked problems: Even the most rigorous instances of past successes will struggle to confidently deliver solutions for complex and ambiguous challenges in contexts that are new or emergent, where precedent is hard to come by and future adaptation is a necessity. In contrast, "by hypothesising desired outcomes or functions, [design activity] moves towards proposing forms and structures that can realise such desired outcomes" (Cramer-Petersen, Christensen & Ahmed-Kristensen, 2019, p. 39), functioning as a lens to conceive of future solutions that are informed by past data, but not limited by it.

4.2 Contributions to generalizability

While the field of behavioral design has grounded much of its success on the systematic discovery of patterns in human behavior through lab experiments, it has not historically been as enthusiastic to create new patterns by abstracting up from aggregated solutions after they have been implemented. However, design research's "bottom-up" lens may also contribute to improving *generalizability*, which can address a known limitation in the field (Bates & Glennerster, 2018; Hauser, Gino & Norton, 2019) with the promise to support broader scaling of behavioral design solutions.

Behavioral design's struggle to achieve greater generalizability stems, in part, from its rationalist perspective on the use of evidence to build confidence in solutions. On the one hand, behavioral interventions that marry contextualized insights with relevant experimental findings are often more likely to be successful due to their optimization for the setting in which they will be implemented (World Bank, 2018). On the other, too high a level of specificity can contribute to the perception that it is difficult, even impossible, to translate or transfer solutions that worked well in one context into another one due to beliefs that localized insights can only feed localized solutions, or that localized evidence is always more reliable than—and therefore preferable to—generalized insights (Bates & Glennerster. 2017). But precision can be the enemy of progress, reinforcing the useful notion that site-specific insights are a valuable input to individual solutions, but also the less helpful one that these insights are irrelevant to anything but the localized context from which they came (Deaton and Cartwright, 2018).

While valuable as a means to quantify and communicate the relative success of solutions—an attribute design could frankly use more of, at times—the use of intervention-level

evaluation as the unit measure can also dissuade practitioners from considering how knowledge might be transferred to other settings in order to amplify its impact (Biesta, 2007). This challenge is not entirely new (Angrist & Pischke, 2010; Ludwig, Kling & Mullainathan, 2011), but behavioral design's ability to scale its successes may be persistently inhibited if solution efficacy and outcome metrics continue to be treated as the end point of a linear development process. Here, again, design's inherent comfort with abstraction and iteration can play a valuable role, re-centering a new emphasis on the cyclical process of aggregating and abstracting learnings across a variety of interventions rather than treating evaluation as a terminus.

4.3 Induction v. abduction

Previous attempts to define the relationship between top-down/analytic and bottom-up/synthetic disciplines have been articulated many ways: as a difference of goals, where co-existent practices occupy different territories across a landscape defined by analytic/synthetic and symbolic/real dimensions and "the scientist sifts facts to discover patterns and insights, [and] the designer invents new patterns and concepts to address facts and possibilities" (Owen, 2007, p. 17); in the form of productive tensions between divergent, or exploratory, and convergent, or evaluative, problem-solving modes (Csikszentmihalyi, 1996); and famously in Simon's efforts to create a science of design that restores rigor to "devis[ing] courses of action aimed at changing existing situations into preferred ones" (Simon, 1988, p. 67). It has even been argued that design can feasibly be considered a factor in the shaping of *all* human experiences, even extending "into the core of traditional scientific activities, where it is employed to cultivate the subject matters that are the focus of scientific curiosity" (Buchanan, 1992, p. 8) to inform hypothesis formation.

Another way to capture this distinction is to contrast behavioral design's inductive style of problem solving with strategic design research's abductive one, as defined by CS Peirce (Feibleman, 1970), where solutions are predicated on pulling inferences from both known context and 'best guess' speculations (Fann, 2012; Frankfurt, 1958). Where inductive problem-solving's strength in recognizing existing patterns helps us use our contextual knowledge to inform *probable* solutions, abductive problem solving encourages us to develop *plausible* hypotheses through the creation of new patterns, allowing us to conceive of what does not yet exist.

Peirce states that "induction is an argument which starts out from a hypothesis, resulting from a previous abduction, and from virtual predictions, drawn by deduction, of the results of possible experiments, concludes that the hypothesis is true, in the measure in which these predictions are verified" (Frankfurt, 1958, p. 593). This suggests that rather than thinking of inductive (behavioral design) and abductive (design research) modes of inquiry as parallel but separate methodologies, we might instead consider how they can be productively combined, augmenting evidence-based behavioral first principles with qualitative forms of evidentiary research and an expanded conception of context.

Using the framework introduced earlier, a new proposed new hybrid could look something like this, where design and behavioral design activities are interwoven to bring the best of both.

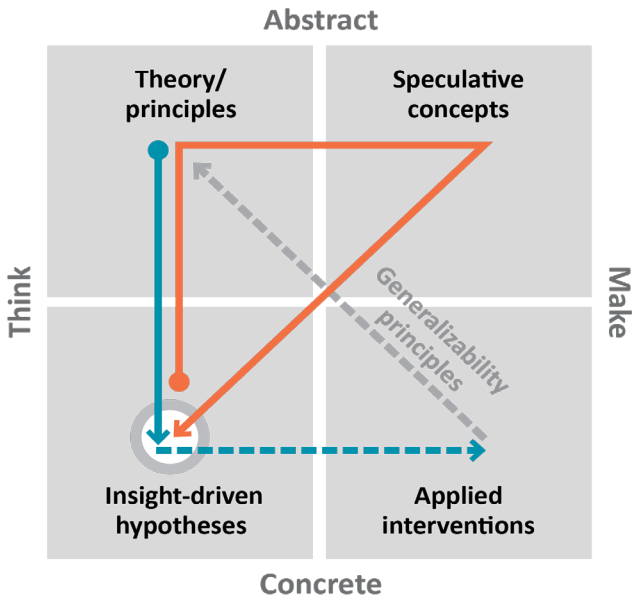

Figure 3 A proposed new behavioural deign/design research hybrid process model

This new model reveals a potential new methodological arc, in which problem definition consists of multiple frames to accommodate latent human and institutional conditions in addition to behavioral change, and where design-led perspectives on context and evidence inform behavioral hypothesis generation. In this reconceived mode of inquiry, behavioral findings and first principles still supply potential approaches (UL) in a top-down fashion, but are supplemented by qualitative design research that provides deeper insight into relevant contextual factors (LL)—in essence, Pierce's deducted "predictions." Concurrently, we can synthesize bottom-up contextual insight from on-the-ground discovery research (LL) into directional principles of *what could be* (UL) that inform speculative approaches for problem solving through a process of abduction (UR). These speculations and behavioral insights are then considered collectively, resulting in potential hypotheses for interventions (LL), in accordance with both behavioral first principles and design research insights. Finally, interventions are constructed and tested (LR), after which patterns gleaned from the evidence of contextualized solutions can be configured into generalizability principles (UL). Through this systematic accumulation of evidence from more and various "cousin" examples, we can move from empirical evaluation of individual instances to sense-making across many (Angrist & Pischke, 2010).

4.4 Extending the model through participatory design

Traditionally, behavioral design interventions focus primarily on present-tense contexts and issues in stable systems, yet one hallmark of wicked problems in particular is their tendency

to shift and reshape over time. This bolsters the notion that resolving, rather than solving, challenges may be a more likely goal and outcome (Huppatz, 2015). Here again, design's abductive lens has the potential to provide a more longitudinal perspective on these challenges through the tradition of participatory design.

Overcoming the tendency to design *at* people and instead design *with* them by integrating top-down expertise with the bottom-up perspectives through lived experience has the potential to redistribute ownership of behavioral design solutions (Sanders, 2002; Spinuzzi, 2005), despite the fact that the very dynamics that can make it powerful—shared ownership and investment, reversals of authority through the inclusion of non-expert views—may be counterintuitive or even objectionable to those accustomed to being de facto decision-makers (Blomkamp, 2018). Taken to a logical extreme, participatory approaches might even extend beyond present-tense settings to futures- and systems-oriented socio-material systems that reconceive of the public as full active agents in re-shaping policy (Björgvinsson, Ehn & Hillgren, 2012), reducing the all-too-common situation in which those most in need of interventions suffer from research malaise due to the regular, if well-meaning, poking and prodding of researchers (Chicago Beyond, 2018). Even in its less aspirational version, problem framing and hypothesis development can surely be improved by increased involvement by those who know the context best. As the case in Flint clearly demonstrates, deeply embedded skepticism, a high likelihood of long-term health and financial consequences, and a highly politicized social context begs for a human, not merely a behavioral, approach (Stillman, 2017).

Proposing a hybrid model will admittedly force behavioral design to embrace a potentially uncomfortable level of qualitative evidence and contextual ambiguity, but it is not an advocacy to toss out empirical evidence and methodological rigor (Deaton and Cartwright, 2018). Just as analytic and synthetic problem-solving modes both bring strengths, each also brings deficits. In improving the quality of hypotheses to be tested by wedding behavioral design's inductive hypothesis development process with design research's abductive one, we can identify new approaches to knotty problems that need it most by informing what *could work*, rather than only what *worked* (Biesta, 2007). Where design research lacks the top-down theory of first principles, behavioral design can step in with evidence-driven approaches; where behavioral design frames problem too narrowly and may overly adhere to what's worked in the past, design research can provide plausible speculative hypotheses to stretch thinking beyond the tried and true to construct, not just select, solutions.

The good news is that behavioral design is still a new field, and not yet codified. As such, it's an ideal time to test how these strange bedfellows of behavioral design and design research may transform into an integrative, comprehensive and disruptive force.

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