

Communication and Media

Value-Sensitive Design for Feminist Technology: Designing for "Feminist Fatherhood" with Nonwhite Latinx and White Fathers

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Keywords: feminist hci, co-design, fatherhood, culturally responsive design, intersectionality, value-sensitive design

<https://doi.org/10.1525/gp.2021.24917>

Global Perspectives

Vol. 2, Issue 1, 2021

Value-sensitive design is an approach that seeks to explicitly center the values of design stakeholders. In doing so, the method provides a rich analytical backdrop in which to explore how participants make sense of values and embody values in their designs. In this study, I explore the broad question of how a value-sensitive design approach can be used to surface, address, and possibly reconcile the similar and different culturally informed ways we make sense of being feminist fathers. Two groups of self-proclaimed feminist fathers, white non-Latinx and nonwhite Latinx, engaged in a value-sensitive design approach to designing technology to support their conceptualizations of feminist fatherhood. Four themes around differences between the groups and the kinds of reflections the participants engaged in are summarized. Based on our findings, I contribute suggestions for adapting value-sensitive design approaches to scaffold certain kinds of reflection around authenticity and interpretation in ways that are more grounded in themes of nondominance.

INTRODUCTION

In the past decade, the human-computer interaction (HCI) field has embraced critical and feminist theories from the social sciences, humanities, and cultural studies, leading to an emergence of a variety of methodological approaches such as design justice (Costanza-Chock 2020) and feminist HCI (Bardzell 2010), as well as an embrace of decades-old methodologies such as value-sensitive design (Friedman and Hendry 2019). Yet there is a need for more detailed accounts on the methodological challenges that arise when designing across individual and cultural differences in how feminist values are understood and interpreted. While we understand that such individual and cultural differences exist, understanding how approaches like value-sensitive design (VSD) can help surface and address such differences can help future researchers better integrate such methods in their work and adapt such methods in ways that better align with needs emerging from the feminist theoretical spaces.

This article explores the broad question of how a VSD approach can be used to surface, address, and possibly reconcile the similar and different culturally informed ways we make sense of being feminist fathers. The examination of designing technology for fatherhood across cultures provides a rich backdrop in which to investigate the methodological challenges of feminist technology design. Fatherhood in the United States has undergone broad shifts in the

last few decades, yet deep inequities along race, class, and gender remain (LaRossa 1997). Shifting conceptualizations around gender further complicate and expand traditional conceptualizations of fatherhood, moving it to include notions of transnational fatherhood and gay fatherhood that were historically marginalized (Life, Murgia, and Poggio 2019). Furthermore, the increasing ubiquity and pervasiveness of digital tools to support social connectivity and global awareness have changed our approaches to parenting and how we understand the development of parenthood (Toombs et al. 2018; Ammari and Schoenebeck 2015).

This study adopts a VSD approach in engaging fourteen participants divided into two groups: nonwhite Latinx fathers and white non-Latinx fathers. Specifically, my investigation addresses three research questions. First, I ask the question, **What significant cross-cultural and intracultural differences emerge from groups in their feminist fatherhood technology designs?** Here I seek to understand what kinds of discussions and designs emerge from the VSD process, and in what ways the discussions and designs reflect differences between and within the groups. Second, I explore the question, **How does a VSD approach help reveal differences in the ways feminist values are embodied through design?** Here I focus on the methodological contribution a VSD approach can make to feminist technology design that seeks to explicitly address the cultural and individual differences in feminist values. Lastly, I explore the question, **How might we adapt a VSD ap-**

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proach to better explore and support feminist technology design? Here I use the methodological case study to discuss limitations and possible future adaptations that can be made to a VSD approach to address such limitations.

The study entailed two separate daylong design workshops, which were conducted with the two different groups of self-identified male feminist fathers from two different cultural backgrounds: nonwhite Latinx men and white non-Latinx men. The data from the analysis of artifacts and design discussions highlights key differences among the groups in how feminist values were embodied in their designs. In addition, participants engaged in two distinct kinds of reflection around how values are authentically held and how values are interpreted. Research implications suggest the need for value-centric design processes that center dominance and subjugation, as well as adaptations that might strengthen a deeper integration between VSD methods and feminist technology design.

BACKGROUND

DEFINING “FEMINIST FATHERHOOD”

Feminist theory, across the broad, varied theoretical spectrum, has much to say about the changing landscape of fatherhood, masculinity, and the power relationship to the construct of femininity. For instance, in work by Daniel and Taylor (1999), the dichotomy of mothering and fathering is delineated with a breakdown of care of children and domestic tasks, highlighting how often the work of “care” and “domesticity home care” falls to the mother. Their work uses feminist theory to frame gendered power as a choosing of aspects of care of children and domestic tasks. hooks’s (2000) conception of nondominator culture is illuminating in considering the importance of the rejection of domination from masculine identities. Outlining nondominator culture, hooks (2004, 115) asks men not to relinquish their maleness but to “become disloyal to patriarchal masculinity in order to find a place for the masculine that does not make it synonymous with domination or the will to do violence.” She writes, “rather than assuming males are born with the will to aggress, the culture would assume that males are born with the inherent will to connect” (Hooks 2004, 117).

Grounding this concept of nondominator culture in how we understand fatherhood, we can look to the work of Elliot (2016) on caring masculinities. Caring masculinities are masculine identities that reject domination and its associated traits and embrace values of care such as positive emotion, interdependence, and relationality. Caring masculinities recast traditional masculine values like protection and providing into relational, interdependent, care-oriented ones. For instance, in work by Bulanda et al. (2004), fathers with egalitarian gender ideologies demonstrated greater involvement than “traditional” fathers. There are a variety of different theoretical feminist lenses that can help us understand different factors of fatherhood such as labor divisions and the role of gender ideologies (Doucet and Lee 2014). In short, feminist theories vary in how they examine fatherhood, but they share the framing of traditional fatherhood as emerging from a patriarchal society rooted in both the supremacy power of fathers and rigid masculinity and

femininity constructs (LaRossa 1997; Wilcox 2014). As technology continues to mediate parenting practices, how technology ignores or reinforces certain fatherhood norms continues to be a valuable focus for inquiry.

DESIGNING FOR “FEMINIST FATHERHOOD” VALUES

Emerging research in the human-computer interaction (HCI) space has explored the intersection of fatherhood and technology design. For instance, work has explored how online social platforms are often used to support caring fatherhood behaviors (Eriksson and Salzmann-Erikson 2013), build supportive networks (Toombs et al. 2018; Ammari and Schoenebeck 2016), and afford online sharing among fathers mediated by privacy concerns and perceptions of judgment (Ammari and Schoenebeck 2015; Ammari, Schoenebeck, and Romero 2018). Some work has also explored how digital spaces can help to reinforce aspects of fatherhood identity and domestic masculinity, such the use of blogs to perform DIY fatherhood (Ammari, Schoenebeck, and Lindtner 2017). However, little work has explicitly explored the role of feminist values in designing for fatherhood.

One design methodology that explicitly addresses values but attempts to remain free of embedded value systems is value-sensitive design. VSD is defined by Friedman and Hendry (2019) as an interactional theory and method that accounts for human values in a principled and structured manner throughout the design process. In VSD the designer is invited to acknowledge that, through the action of prioritizing one value over another, they are projecting their personal value onto the design and not that of the user/stakeholder. VSD centers the participants’ value system and their perspectives on the values of relevant stakeholders around the design issue being focused on (e.g., fatherhood).

VSD approaches have been used in exploring a variety of domains such as the underlying human values in complex security domains (Czeskis et al. 2010). Relevant to this study, VSD approaches have also been used in cross-cultural research such as research on how we can understand feminist values differently in Islamic cultural contexts (Alsheikh, Rode, and Lindley 2011) and embedding cultural values into interactions within heritage spaces (Muntean et al. 2017). Work by Alsheikh et al. (2011) highlights the importance of surfacing and validating an understanding of the participants’ value system to embrace culturally responsive aspects of feminism, such as how we understand female agency within Western feminist and Islamic feminist perspectives (e.g., protecting privacy versus enacting particular cultural roles in the context of their relationships). Another example is work by Feisler et al. (2016) on enacting feminist values in design of a fan fiction archive platform.

CULTURAL CHALLENGES IN DESIGNING FOR FATHERHOOD

It is important to acknowledge that much of what has been theorized and concluded about fatherhood emerged from middle-class white families (Downer et al. 2008). Research by Downer et al. (2008) found that fewer than 4 percent of studies had samples comprising a meaningful number of

Latinx participants. Feminism as a theoretical stance has been wrestling with universalist traditions that often embody Western feminist ideals (Khader 2018), which might also be apparent in how we understand feminist fatherhood (e.g., parental engagement). Given that fathers’ conceptions of fatherhood are largely influenced by cultural background, current social conditions, and upbringing, more explicit attention to the role of culture in fatherhood studies has emerged (Lamb et al. 2017). While it can be argued that father involvement has elements that are universal across cultures (Flouri 2008), the role of cultural values is significant and complicated. For instance, Latino fathers have traditionally been painted with a broad stroke as uninvolved and lacking in emotional warmth, driven mainly by a broad overgeneralization of the negative “machismo” stereotype (Mirandé 2018), yet cultural norms around masculinity among Mexican American men is associated with fathering behaviors such as nurturing, emotional closeness, and family protection (Arciniega et al. 2008). Latino men may have involved fathering attitudes, but they have traditional attitudes toward gender equity (Hofferth 2003). In contrast, conservative Protestant men espouse traditional gender attitudes but are more engaged with their children than men with nontraditional attitudes (Wilcox 2014). There is also a historical context for certain marginalized groups in how we see “new fatherhood” trends such as greater female labor force participation. For instance, white men tend to be less accepting of mothers’ labor force participation, whereas the history of African American women’s labor force participation creates a context where African American men (and women) tend to view economic participation as a core component of the mothering role (Blee and Tickamyer 1995). In research by White (2006) on African American fathers self-identified as feminists, what emerges are explicit value systems that redefine notions of masculinity and gender ideologies.

Furthermore, designing for fatherhood is complicated by methodological considerations that go beyond focusing on isolated parenting behaviors, but embed a strong conceptual grounding that considers the role of ecological context (Campos 2008). In looking at father involvement, factors such as class, age, child gender, and maternal employment play a significant role (Lamb et al. 2017); fathers in lower class brackets spend more time with their children, fathers spend more time with younger children, fathers spend more time with male children, and fathers spend more time with children if their partner is employed. In addition, the availability of social support networks plays a role in father involvement (Lamb 2000), along with institutional barriers that influence factors such as parental leave, and norms around taking leave (Rehel 2014). For instance, immigration to the United States may be associated with stressors, structural barriers, and reduced capital that undermine the quality and quantity of father involvement (Capps, Bronte-Tinkew, and Horowitz 2010). Given the mediating role of cultural and structural inequities, when considering technology to support feminist fathers, the question of how we might design technology that supports feminist values requires us to interrogate what we mean by feminist fatherhood and explore how design approaches might help us do so.

METHODS

Two separate daylong design workshops were conducted in February 2019 with two different groups of self-identified feminist fathers from two different cultural backgrounds: nonwhite Latinx men and white non-Latinx men. Through an analysis of intra- and intergroup differences between fathers from different cultural backgrounds, I explore how a value-sensitive design approach can be used to surface, address, and possibly reconcile the universal and the differentiated ways we make sense of feminist fatherhood.

RESEARCH STANCE

The present research is part of a long-term engagement with a community of Latinx parents in the Washington Heights/Inwood neighborhoods of New York City in the northeast United States. The author has substantial experience working in this neighborhood as an active civic community member, as a consultant on community IT projects, and as a researcher.

PARTICIPANTS

A total of fourteen self-identified male feminist fathers engaged in the study. Participants were divided into two groups, nonwhite Latinx and white non-Latinx. The Latinx father group (Group L) consisted of nonwhite Latinx men of mainly Caribbean and Central American descent ($n = 7$), and the other group of fathers (Group W) identified as white non-Latinx ($n = 7$). While there are many definitions of “culture,” I defined culture broadly as “ethnicity, where you were raised, religion, or anything else that you feel has influenced your parenting styles” and allowed participants to self-identify as to what culture was most significant to their approach to parenting. All participants identified as male, and all but one participant identified as heterosexual; participant W7 identified as gay.

In recruiting participants, the messaging requested fathers who co-parent, have at least one child between the ages of four and ten, hold a broad belief that all people should have equal rights and opportunities, and identify as either white non-Latinx or as Latinx and as a “father.” Participants were recruited by contacting organizations for fathers, posting advertisements on organizations’ social media pages (with their permission), and posting to community locations such as car service hubs, coffee shops, and a cigar shop. Through online recruitment, snowball, and word-of-mouth techniques, two separate daylong in-person workshops were scheduled with each of the groups of fathers.

All of the participants were currently living in the Washington Heights/Inwood neighborhoods in the northeast region of the United States. The median age of participants was thirty-six; ages ranged from twenty-nine to forty-four. Most of the participants did not indicate a strongly exclusive sense of affiliation with their primary cultural identity—only two had a high primary cultural affiliation score. The average adapted Multigroup Ethnic Identity Measure score for all of the participants was 2.82 out of 4. The average score for Group L ($M = 3.00$) was higher than for Group

Table 1. Participant and partner demographics.

	Age	Marital Status	Degree, Employment		Racial/Ethnic Identity	Primary Cultural Affiliation (Self-Labeled)	Strength of Affiliation (4=highest)	# of children	Children ages
L1	35	Married	CO	FT	Latinx	Dominican	3.17	2	4, 6
L2	44	Married	CO	PT	Latinx	Dominican	2.67	3	4, 7, 16
L3	36	Married	CO	FT	Latinx	Guatemalan	3.33	2	4, 4
L4	29	Divorced	CO	FT	Latinx	Central Mexican	2.92	1	5
L5	40	Married	SC	FT	Latinx	Dominican	3.67	3	3, 6, 6
L6	38	Married	GS	FT	Latinx	Dominican/American	2.17	2	9, 13
L7	36	Married	SC	PT	Latinx	Puerto Rican	3.08	2	5, 7
W1	31	Married	CO	FT	White/Non-Latinx	American	2.33	1	4
W2	36	Married	CO	FT	White/Non-Latinx	Irish Catholic	3.67	2	5, 9
W3	33	Married	GS	FT	White/Non-Latinx	North American	2.42	1	6
W4	37	Divorced	CO	FT	White/Non-Latinx	White American	3.00	2	10
W5	42	Not Married	GS	FT	White/Non-Latinx	Jewish	3.25	1	9
W6	33	Married	CO	FT	White/Non-Latinx	Christian	2.08	2	4, 10
W7	39	Married	SC	SAH	White/Non-Latinx	Mixed	1.83	2	3, 6

*Number of children. **Ages of children. SAH=Stay-at-home ; SC: Some College; CO: College Education; GS: Graduate School; HS: High School.

W ($M = 2.65$), but both averages can be considered relatively moderate—participants were familiar with their primary cultural affiliation but did not participate in it exclusively or explore all of its possible facets.

QUESTIONNAIRE

Prior to the workshop, participants completed a questionnaire adapted from the Multigroup Ethnic Identity Measure (Phinney 1992), which measures two components: (1) identity and (2) affirmation, belonging, and commitment. The recommended scoring is to use the mean of the four-point Likert scale responses to twelve items (five identity items and seven affirmation items). The language of the original scale was changed from “ethnic” to “cultural” to better reflect this study’s broader focus on the participants’ self-identified cultural characteristics, which could include religion and other differences. Example items include “I am

happy that I am a member of the group I belong to” and “I participate in cultural practices of my own group, such as special food, music, or customs.” Participants were asked to fill out this questionnaire about the culture that was most related to their parenting considerations in their family. It is important to note that the modifications made to the measure mean these values should be interpreted as descriptive rather than as a validated diagnostic metric.

WORKSHOP DESIGN

The workshop structure and techniques were adapted from the Value-Oriented and Culturally Informed Approach (VCIA) (Pereira and Baranuskas 2015) with the broader theoretical underpinning grounded in the VSD methodology (Friedman and Hendry 2019). Each group participated in a single workshop that lasted about seven hours, with a forty-five-minute break for lunch. The workshop was di-

vided into five phases as outlined in [table 2](#).

PHASE I: STAKEHOLDER IDENTIFICATION

In this phase the participants were prompted to consider the various stakeholders that would be impacted by the design of a tool for fathers to support their parenting. Stakeholder identification helps designers think beyond obvious classes of stakeholders, paying attention to different levels of involvement, interests, and expectations (Pereira and Baranauskas 2015). VSD approaches start with a general engagement around stakeholders that might be impacted by a design but are traditionally not included in design considerations (Friedman, Hendry, and Borning 2017). Borrowing from Yoo’s (2018) distinction between core and peripheral stakeholders, participants engaged in a discussion on which stakeholders they felt were most important to the design of technology to support feminist fathering.

PHASE II: VALUE IDENTIFICATION

We began this phase with a broad discussion on what feminism means to the different participants. We explored questions around manhood, such as the following: How would you define manhood? What does it mean to identify as a man? In addition, we explored questions around gender-role attitudes, such as the following: Do you believe that men should be the “breadwinners” in their families? Why or why not? Lastly, we discussed questions around parenting practices, such as the following: Do you believe in using corporal punishment to discipline children? How do you participate in childcare? The goal of these questions was to guide some reflection on common feminist themes in the fatherhood literature.

After this discussion, participants were prompted to openly use Post-its to write down ten or more values they feel are important to being what they feel is a “feminist father.” A sentence starter was put up on the whiteboard to help with any framing and help guide participants to not frame values as features or as specific behaviors. The sentence starter was, “As a feminist father a value important to me is ____.” A similar approach was taken to considering the values of the other identified stakeholders in each group, with the sentence starter framed as, “[stakeholder] thinks it’s important that fathers have this value ____.” This framing sought to capture each father’s perception of the values of the relevant stakeholders around them. Iterations of “voting” using colored stickers were used to refine the collective list of values. The reason for voting was framed as “if you feel this value is present or personally meaningful for your context.” Each value needed to have at least five votes to be considered on the list, with any member having the option to further debate and challenge any values on the list.

PHASE III: IDEATION

In this phase, participants engaged in a co-design activity to ideate around the values discussed in the prior phase. Materials introduced included 8.5 × 11-inch sheets with space to name their prototype and list its key functions and fea-

Table 2. Workshop phases.

	Phase	Time
-	Overview and Introductions	30 minutes
I	Stakeholder Identification	45 minutes
II	Value Identification	1.5 hours
-	Lunch Break	45 minutes
III	Ideation	1.5 hours
IV	Value Comparison	1.5 hours
V	Reflection	45 minutes

tures. In addition, the prompts were also embedded on the sheets: (1) how might we support feminist fathers in staying true to their feminist values using a web or mobile application, and (2) what value is being embodied in this design concept? Participants were encouraged to be forward-looking and assume any idea could be pursued in the co-design process. Once these materials were introduced, participants were given the following instruction: “Please make a prototype of a web or mobile app that might support feminist fathers such as yourselves stay true to their feminist values. There are no right answers.” After creating several design concepts, the participants once again engaged in iterations of voting, using colored stickers to refine the design concepts to a set of top five concepts.

PHASE IV: VALUE COMPARISON

In this phase, the participants discussed their design concepts. In a departure from VCIA, the participants did not engage in a value comparison of features from each design but instead, given the early conceptual stage of most of the designs, engaged in a comparison across design concepts and reflected on how the design concept embodied one or more values outlined earlier. Each design concept was put up on the wall, and participants were prompted to discuss the question “How does this design embody a feminist value?” While discussing this question, participants were prompted to make comparisons to other design concepts and to their own understanding of certain feminist values.

PHASE V: REFLECTION

In this phase, the participants reflected on their workshop experience. The focus group approach centered around two key questions: (1) what did you take away from this experience, and (ii) what would you change about the way the workshop was designed?

DATA COLLECTION AND ANALYSIS

Both workshops were recorded, and observation notes were taken during and after each phase. In addition, all design artifacts (e.g., shared ideation Post-its, shared lists) were collected. While a variety of data were collected, our research analysis focused on the discussion data from each

Table 3. Stakeholders identified by group.

ID	Stakeholder	Group L (Nonwhite Latinx Fathers)	Group W (Non-Latinx White Fathers)
FA	Fathers	x	x
CH	Child	x	x
CP	Co-Parent	x	x
GP	Grandparents	x	

Table 4. Father Group L: identified values.

	Value	Father	Child	Co-Parent	Grandparents
V1	Challenge gender stereotypes	x			
V2	Respect for culture	x			
V3	Respect for differences	x			
V4	Strong work ethic	x			
V5	Environmental stability		x		
V6	Compassion			x	
V7	Engaged			x	
V8	Responsible for self			x	
V9	Happiness				x
V10	Respectful				x

Table 5. Father Group W: identified values.

	Value	Father	Child	Co-Parent
V11	Challenge gender stereotypes	x		
V12	Explicit critical awareness	x		
V13	Self-confidence	x		
V14	Responsible environmental steward	x		
V15	Emotional stability		x	
V16	Partnership			x
V17	Gratitude			x
V18	Responsible			x
V19	Thoughtful			x

group, using the other data to contextualize any findings.

STAKEHOLDER IDENTIFICATION

Both groups identified a variety of stakeholders, such as grandparents, siblings, close friends, and neighbors (see [table 3](#)). However, the final list of stakeholders that would be “significantly affected” by changes in parenting style was narrowed down to focus on fathers, co-parents, and children. Group L included the additional stakeholder of the extended family, focusing on grandparents.

VALUE IDENTIFICATION

A total of nineteen values across two groups were defined. Ten values across four stakeholders were identified by Group L, and nine values across three stakeholders by Group W. The list is not meant to be exhaustive or representative of the value sets of the cultural group the participants are members of; instead, it is a starting point for understanding the ways in which values become embodied in design conceptualizations during subsequent steps. In addition, the check indicates that this was the primary source for the value identified, rather than any indication that values are not shared across different stakeholders.

Table 6. Father group L design concepts.

	Concept	Description
C1	Smart Shame	A website and social media bot that automates and intelligently shames media that paints fathers in stereotypical ways. The goal is to allow people to more easily see how media fails to challenge and/or perpetuates harmful stereotypes.
C2	Dynamic Dad Reads	An online magazine that is curated from social media discussions across different platforms to address challenging topics. The goal is to normalize vulnerability as a father and build a sense of large community across different father communities.
C3*	Family Diagnostic	A survey that scores families based on the division of household and care work, reports on different partner attitudes around fairness, and is benchmarked against circles of friends. The goal is to understand how you’re doing in terms of fairness in taking on common responsibilities.
C4	Bright Mirror	A journal app that provides prompts around being a dad who fights gender oppression. The prompts are written by co-parents and fed into a rotating set delivered each day. The goal is to support reflection on things that matter.
C5	Latinx Dad Forum	A Reddit-style community that is geared toward Latinx dads with popular topics and questions managed by parenting counselors and child therapists.

*Highest voted.

Table 7. Father Group W design concepts.

	Concept	Description
C6*	The Fatherly Experiment	Weekly experiments in changing parenting style around themes of caring and disciplining. A lack of modeling might support awareness of different ways of being without having to always read books. You can recommend experiments to others.
C7	PaternalLeave.org	Scoreboard for different organizations, with internal messages like salary sites, where you can learn about the culture for parents in those orgs. Parental leave for fathers? Something advocacy?
C8	Bonding Journal	Allows for guided reflections to be collected from partner and child. Special focus on the child.
C9	Cultural Insights	Support fathers in exploring different parenting styles and attitudes across the world in short video clips.
C10	Allies Learn	Focuses on modeling conversations around race and gender for white parents, that emphasize education and self-reflection.

*Highest voted.

Table 8. Father Group L value comparison.

	Concept	Value(s)
C1	Smart Shame	Respect for differences (V3)
C2	Dynamic Dad Reads	Compassion (V6); respect for differences (V3)
C3	Family Diagnostic	Responsible for self (V8); engaged (V7)
C4	Bright Mirror	Challenge gender stereotypes (V1); respect for culture (V2); respect for differences (V3)
C5	Latinx Dad Forum	Compassion (V6); respect for differences (V3)

IDEATION

In this stage, participants engaged in value-oriented mock-ups, seeking to use defined values as a starting point for ideation and reflection (Friedman, Hendry, and Borning 2017). Each group generated ten design concepts that were narrowed, through voting, to a final pair.

VALUE COMPARISON

In this stage, each group of participants was led through a value comparison activity in which they plotted and discussed the ways in which certain values are embodied in certain design concepts. In [table 8](#) and [table 9](#), the design concepts and their associated values are listed for each of the participant groups.

Table 9. Father Group W value comparison.

	Concept	Value(s)
C6	The Fatherly Experiment	Explicit critical awareness (V12); thoughtful (V19); responsible (V18); partnership (V16)
C7	PaternalLeave.org	Explicit critical awareness (V12)
C8	Bonding Journal	Gratitude (V17)
C9	Cultural Insights	Explicit critical awareness (V12); challenge gender stereotypes (V11)
C10	Allies Learn	Explicit critical awareness (V12)

DATA ANALYSIS

Data analysis focused on a triangulation of transcribed design discussions, design artifacts (e.g., sketches and participants’ notes), and debrief memos written by the author immediately after each design activity. This data collection triangulation was purposive in its goal to increase study design credibility as recommended by Lincoln and Guba (1985). The data was coded in three rounds using thematic analysis across iterative coding cycles. In the first read, I used an open, axial, and selective coding on initial discussions on values. In the second read, I shifted the focus to embodiments and interpretations using a mix of analysis through the initial codes from the first read and open coding focusing on (1) explicit cultural comparisons and (2) cross-group cultural differences on codes. Before a final read, an external research assistant was brought in to review themes and clarity in the connection between the data coded and the associated code (King, Cassell, and Symon 2004). As a result of this external review, some codes were collapsed, and one code was broken into two. In my last read, I applied an abductive qualitative analysis, focusing on the contexts (e.g., stage of design process, topic of discussion) in which certain codes co-occurred with instances of reflection or negotiation.

RESULTS

Our results coalesced around four overarching themes. Two of the themes center around differences between and within the participant groups around perceived marginalization and caring masculinities. The remaining two themes center around the kinds of reflections that emerged—authenticity and interpretation. While each theme has a specific focus, they are not mutually exclusive and instead overlap with each other in meaningful ways.

DIFFERENCES AROUND PERCEIVED MARGINALIZATION

In this theme, what emerged were differences between the groups in how they both discussed and generated designs to address perceived marginalization.

INCLUSIVE SPACES

The idea of creating spaces for fathers emerged as important, given both groups’ perception that most digital spaces for parents are geared toward mothers, a perception that has also been broadly supported in the literature (Ammari

and Schoenebeck 2016). However, while the Latinx fathers group (Group L) focused on designing safe spaces that specifically supported Latinx fathers (e.g., C5, Latinx Dad Forum), the white non-Latinx fathers group (Group W) focused on designs that broadly focused on fatherhood across different cultures (e.g., C9, Cultural Insights).

Group L’s concept of the Latinx Dad Forum (C5) is described as “a Reddit-style community that is geared toward Latinx dads with popular topics and questions managed by parenting counselors and child therapists.” The concept was connected to the values of compassion (V6) and respect for differences (V3). In this excerpt, group members during value comparison discuss how the design embodies certain values:

L7: It’s doing these two things. I think it’s doing two different things. On one side, or in a way... it’s bringing these ways of being a father that our people look down on. Or like [omitted] said... that people are like... oh that’s a Black or a brown people thing. It’s bringing those things into a place that feels normal. You know what I’m saying. It’s like not out here.

L4: There are these differences, and it’s okay to have a place to talk about these differences.

L7: There’s also this other part to this. At least the way I’m seeing it. That there are these differences in our community. Among ourselves we have these issues and changes we need to talk about, and it’s easier... well, maybe not easier. It’s...

L3: We can aim for... that they happen at all.

L7: It can happen in the group. We can air our dirty laundry without being labeled.

L2: I know a lot of dads that aren’t ready to share like that, but at least there would be a place, you know, if they get to that point... where they want to share, and they want to explore different ways.

In this excerpt, the participants allude to the way in which they envisioned the Latinx Dad Forum concept creating space for intragroup members—other Latinx fathers—to be vulnerable and compassionate with each other, without the gaze that comes with more open nonethnic or race-specific forums. In contrast, Group W’s concept of Cultural Insights (C9), described as “You can explore different styles across the world in short video clips,” has a broad focus. The design was connected to the values of challenge gender stereotypes (V11) and explicit critical awareness (V12). As one participant described the concept:

W5: There are all of these dads in their little bubbles. They’re not seeing or hearing from different dads outside of that bubble.

Another participant, while discussing how the concept connects to the value of explicit critical awareness, shared:

W2: On my Instagram, I’m part of this DIY dad group thing. I found out about it from my friend that lives in [omitted]. Anyway, I see these pictures of these guys’ daughters in dresses... like hammering and cutting stuff. Like I’m not saying that’s a problem. I’m just saying that... that’s a certain way of thinking about being a feminist dad, that’s embracing... like building and making... as something that shouldn’t be about... like boys only. Right. So this idea of looking into other cultures, for me... is... is... seeing other ways people are thinking about this... and to think about what that says about you, and how you’re approaching it. Right.

In these excerpts, we see differences in how the groups embody the notion of inclusivity in their designs. In the concept put forth by Group W, we see inclusivity embodied in the design as the challenging of dominant norms through reflecting on one’s own perspectives on gender and oppressive gender practices. The emphasis is on diversifying the voices in the room around parenting. In contrast, the concept put forth by Group L looks inward toward a specific group—Latinx fathers—and embodies inclusivity through an alternative space for fathers that is marginalized from white spaces. Both concepts embody inclusivity, yet the ways inclusivity is embodied in the design concepts are distinct.

EXPLICIT ANTIDISCRIMINATION

Both groups devised design concepts that directly dealt with issues of discrimination. In contrast to the concepts around creating inclusive spaces, these concepts sought to directly deal with individual biases, stereotypes, and discrimination. However, while Group W focused on designs that positioned the user as “allies” to marginalized groups (e.g., Allies Learn), Group L focused on designs that sought to directly deal with discrimination toward Latinx men, specifically stereotypes (e.g., Smart Shame).

Group W’s Allies Learn (C10) is described as a concept that “Focuses on modeling conversations around race and gender for white parents, that emphasize education and self-reflection.” The concept was connected to the value of explicit critical awareness (V12). In this excerpt, group members during ideation discuss how the design embodies certain values:

W4: It’s so hard. I’m not saying like woe is me... But it’s hard to know what that word [ally] really means.

W5: There’s so much stuff out there, really great videos and books, all about this.

W4: Yeah. Yeah yeah... I know... but if we’re talking about the problem. The problem I have is real examples of where the line gets blurry.

W7: So see... what if it’s something like this. Like there’s these real, like, stories, or testimonials of being an ally. Like... that... um...

W5: So you could search here, and then read?

W7: Like Humans of New York. You seen that? They have these great stories from people.

W1: I’ve seen that. I think that’d be really cool. I would love to check out something like that.

W5: There might already be something like this, but if not, I think it would be useful.

In these excerpts, we see the participants from Group W framing antidiscrimination through the lens of allyship, while Group L focuses on discrimination toward Latinx groups, specifically stereotypes around Latinx fathers. In designing toward both inclusive spaces and antidiscriminatory supports, Group L focused specifically on the Latinx population and discussed the issue of normativity and how parenting supports often assume whiteness.

DIFFERENCES AROUND CARING MASCULINITY

In this theme, what emerged were differences between the groups in how they both discussed and generated designs around what “caring” means as a feminist father, and its relationship to how they define masculinity.

DIFFERENT KINDS OF CARE

The distinction between different kinds of care emerged from both participant groups. These distinctions traversed different frames, such as care as emotional connection, care as physical connection, care as taking on labor traditionally not seen as being masculine, and care as being tied to the unique needs of a child. Oftentimes, this discussion was framed as comparisons between their own experiences with their fathers, and the kind of fathers they want to be. One participant discussed differences in physical versus emotional care. He shared:

L3: My father was affectionate with me. He would hug me, and kiss me. But there’s this whole other level that we just never reached. He’s very... very unaware of feelings and how to listen. How to care with attention and listening, that my mom was just... so good at. So I think there’s this difference in what we mean about how we show love.

For L3, the expression of love took on a dimension of caring through attention and empathy, rather than explicit forms of physical affection. Other participants associated care beyond an immediate personal connection to how care is connected with household labor and other kinds of “invisible work” often cited as falling to mothers or other caregivers. For instance, one participant stated:

W2: I mean, when I look at my own father, and how he was when I was a kid. He wouldn’t lift a finger. He worked his tail off, but my mom ran the home. From what we ate to what we wear. As a dad I don’t want to be like that. So... like, disconnected.

Care also touched on child-specific contexts such as parenting children that may have disabilities. In Group W, it centered on one participant sharing their experiences having a child with dyslexia.

W6: He’s dyslexic. And it’s like he’s much more sensitive to differences in other people. And it’s made me more aware of kids that have disabilities or these, like, challenges.

In Group L the topic of disabilities arose when discussing

a child having hearing issues, and how it impacted a group member’s parenting.

L5: When my son was young, he developed these hearing issues. It’s a long story, but it’s changed the way he talks. And you know, kids can be mean. You know it hurts me when I hear about him getting teased, and it’s changed how I think about him being tough. You know, he has enough things making him tough. He needs something else from me.

However, for both groups, the idea of caring masculinities emerged most saliently when discussing disciplinary practices. For instance, in Group W, one father discussed how their partner’s cultural norms differed from his.

W7: He has no problem like yelling sometimes. He’s a good dad, but he thinks like... you say something and they should follow. I’m like... they’re kids. Their job is to challenge you. But he just grew up different.
W1: I get that. I think in my house my dad was very much the serious one. You know, the whole... “when dad gets home.” (*Laughter.*)

Members of Group L often brought up how discipline in their families can be culturally different from discipline for their white friends.

L6: I saw this one kid like... he was going nuts. And my wife... my partner... she was like, my mom would have slapped the ish... sorry... she would have not tolerated that.
L7: I feel that. Man, my dad was a scary dude when he got mad. Ooh boy. (*Translated.*) Go... your dad is not gonna like that. My mom would actually help me escape. (*Laughs.*) Like... go, get out now. (*Laughs.*)
L1: It was this thing to hit your kids. I feel like now it’s like, nah, you can’t do that. I think, you know... You do you. I don’t think it’s necessary, or that it works. For me... you know... for me... It makes things worse, and it comes from this place of... I’m a man, and I should be scary. I mean for me... that was my dad. He was like that too.

SUPPORTING CARING

While both groups openly discussed different kinds of care, there were distinct differences in how care became embodied in the designs that emerged. For instance, while Group L focused on designs that sought to normalize care (e.g., Dynamic Dad Reads), Group W’s design focused on supporting existing care efforts (e.g., Bonding Journal).

Group L’s concept of Dynamic Dad Reads (C2) is described as “an online magazine that is curated from social media discussions across different platforms to address challenging topics. The goal is to normalize vulnerability as a father and build a sense of large community across different father communities.” The concept was connected to the values of compassion (V6) and respect for differences (V3). In this excerpt, group members during value comparison discuss how the design embodies certain values:

L4: There are these discussions taking place, but I’m not sure everyone has access, or knows where to look.
L7: Yeah, I don’t really do social media much, but I read a lot of news, so I like this connection.

L6: For real, you on Instagram?

L1: Yeah, but I don’t really use it to have discussions.

L7: I do. I share mostly family stuff I’m doing on Instagram, and I get these great comments about resources, and other things people are doing.

L4: Do you know...

L7: Like, I’ll post something I’m doing around drawing, and someone shares this great drawing video. And we’ll talk about dealing with frustration around drawing.

L6: That’s interesting. That’s interesting.

L1: Yeah, I don’t think I’ve ever seen these kind of... like... sharing going on. I mean, I see a lot of politics. And stupid stuff. But... nah. The thing is... I don’t think I would share myself.

Group W’s concept of the Bonding Journal (C8) is described as a tool that “allows for guided reflections to be collected from partner and child. Special focus on the child.” The concept was connected to the value of gratitude (V17). Here is how one participant described the goal of the design:

W6: We were talking about reminders. It’s like we want to be doing all of these things, and we’re sometimes on our game, but sometimes we need this... like, anchor. Something that reminds us to keep on making that effort. I don’t know, but for me it’s... seeing my kid struggle with friends, or struggle with his fears, that brings me back in to wanting to listen, and help him see that he can feel scared and sad, and that... and that... that’s being a boy as much... as it’s being, I don’t know... human.

Both concepts emphasized supporting forms of care that they perceive to fall outside traditional fathering practices and require additional supports. However, the way supporting care became embodied in Group L’s concept focused on normalizing alternative kinds of caring masculinities rather than supporting existing kinds of efforts. This may indicate differences between the groups in how they see caring masculinities being accepted by them and their respective father communities.

REFLECTING ON AUTHENTICITY

In the workshops with both groups were recurring instances of reflection on the degree to which one’s behavior is aligned with one’s espoused values—which we are referring to as authenticity. Sometimes referred to in psychology as values authenticity, this kind of authenticity describes the consistency between an entity’s internal states and its external expressions (Newman 2019). Under this theme, I describe the different ways key methodological techniques (e.g., value identification) within the VSD approach served to prompt reflections around values authenticity.

PRIORITIZATION

During the value identification stage, participants collaboratively listed feminist values mapped to different stakeholders. Through this process of collaboratively negotiating values, the question of whether values are all equally prioritized emerged. Participants in both groups often discussed values in relation to other values—specifically, how some

values can eclipse others in how they are upheld. For instance, during a discussion around the value of compassion, participants in Group W related the value to how families prioritized success and competition. During an initial part of the discussion, one participant shared:

W5: It’s all around us. These gifted and talented programs. Private schools at pre-K. Pre-K! Yeah. This culture of success and failure. It’s toxic.

The discussion extended into a discussion around how values authenticity is related to perceived importance—in this instance, the relationship to the value of self-confident children.

W2: I don’t think you can be general like that. There’s some people that think it’s most important to have their kids make a lot of money, or maybe, like, help out.
W4: Oh yeah. Oh yeah. Yeah yeah. For real... my Korean friend. There’s real, the pressure on his kids. I mean, wasn’t there like this thing. Like not all Koreans. Yeah, no I know there’s differences. But there’s this culture of success around me... Real important. The whole being compassionate... is still there, but... maybe lower... for some people.

In Group L, the discussion around value prioritization came up a few times; the most salient was during the discussion around the design concept Latinx Dad Forum (C5).

L4: Like, some guys don’t know how to argue. I was one of those guys. It’s basic stuff I think. Like, these aggressive relationships where two people, like, yell at each other and scream. Nah. It’s uber important for a kid to feel that safety, right?
L1: I’m not saying those things are okay, but like, you can yell and not be aggressive. Like, my parents yell all the time, but most important for them was loving me.
L7: I feel you, man. Yeah. I agree. It’s the basics here... and then there’s this other stuff that comes up here. But, well... it’s all connected. Like violent arguing... that’s all connected to this... like, other stuff about being tough or being a man a lotta times.

In these excerpts, what we see is an implicit acknowledgment that values fall along some invisible line of importance. It’s not just whether a value exists but rather the degree to which a value is deemed important, or more important than another value. This, in turn, may influence external expressions that may distort internal states (i.e., I believe this value is important, but I won’t actually build a tool that would support it because another value supersedes it).

SUCCESS

While authenticity was reflected upon through asking which values should be, or are, prioritized, some participants also reflected on the outcomes that may emerge if values were to be acted on. In other words, if a value was truly acted on, would the success state be something they really want? One notable moment came during a discussion of design concept Family Diagnostic (C3), which is described as “a survey that scores families based on the division of household and care work, reports on different partner attitudes around fairness, and is benchmarked against

circles of friends. The goal is to understand how you’re doing in terms of fairness in taking on common responsibilities.” One participant, who had been relatively inactive during this particular discussion, shared:

W4: All right. I’m just gonna say it... I think this would cause all kinds of arguments between me and my wife. (Laughs.) I don’t know if that’s a good or bad thing. For real though. [Inaudible]... shining a light on this thing that’s working, but barely... I don’t know.

The other participants followed up, moving the discussion toward the question of who has the power in the relationship, and how that influences upholding one’s values.

W5: Yeah, this stereotype of women nagging the man. It’s... it’s so common. Always on these TV shows... there’s, like, this nagging woman. But she might really be saying, I’m angry you don’t do enough.
W7: Yes! You can be angry and keep you on point. Or is that nagging?
W2: So these scores and comparisons... they might, like, cause problems, but if it’s not working for one person in the unit, isn’t it gonna come up anyway? They can’t bury it.

In discussing how this diagnostic tool would provide a score around equitable distribution of labor and care work, what emerged was a discussion of the gendered power dynamics on confronting the issue. In reflecting on what outcome might emerge from authentically upholding a value, what was revealed were moments of reflecting on gender privilege and willingness to confront lingering forms of gendered dominance.

REFLECTING ON INTERPRETATION

Another recurring form of reflection emerged: reflections on how values can be interpreted differently. In this section, I discuss how the methodological techniques (e.g., value comparison) within the VSD approach served to prompt reflections on the variety of factors that influence the interpretation of values.

RELATIVE NORMATIVITY

Across several instances, participants reflected on how perceived norms are largely relative to geographical, intergenerational, and cultural contexts. For instance, we saw the participants highlight the malleability of masculinity and explicitly call out the role of culture. In the excerpt that follows, participants in Group L are discussing how the Family Diagnostic (C3) concept would score the distribution of labor.

L3: (Translated.) In Guatemala... at least in my town... it’s regular that men help doing some of the cooking. But I have an Ecuadorian friend that I don’t think has ever cooked anything. So it depends a lot on how you grew up and the culture of the area you are from.
L1: If we could compare against our friend groups. Like you would compare with your friend. That’d be cool. I think it would let people care more about these results.

This excerpt is one instance of the kind of reflections

that emerged during value comparisons, where participants began to deconstruct the ways in which a design concept truly embodied certain values, and how it did so. Here we see that in discussing the inner workings of one of the design concepts (e.g., scoring mechanism), the participants reflected on how culture influences gender norms around certain kinds of work.

The most salient and recurring instances of reflecting on relative normativity occurred when discussing intergenerational differences. For instance, both groups at some point discussed the relationship between masculinity and labor outside the home. Here we see two participants in Group W discuss their experiences with a stay-at-home partner.

W5: It’s funny... for me... 'cause I feel like my mother... she’s this really tough lady... And it, like, bothers her that my wife doesn’t work. Like, she’s never said that. But she says things like... like, when we come over, she’ll be like... you have time to do this, or... you can do this while they nap. And I know it really bothers my wife.
W4: Have you said anything to her?
W5: To my mom... no. But it’s just her way, I think, of saying... you know... she worked and raised two kids. And this idea that she can stay home just is, like... no. You should work.

However, the importance of considering culture in how we make sense of the values the groups delineated early in the process also overlapped with the context of location. For instance, in Group L, one participant shared:

L2: When I go back to DR [the Dominican Republic], it’s so different there. I feel like very white American (*laughs*). I got all these ways of being with my kids that’s just so different to the ways things are there.

In Group W, in discussing concept C9, Cultural Insights, one participant discussed his experience with French friends.

W7: The French way, I think, is supposed to be, like, all about... treating your kids like adults. There’s this strictness to it. I was at dinner there... And my kid’s like... I don’t want this. I don’t like whatever, and their kid is all, like, proper. I mean, like, it sounds good, but it’s all pros and cons.
W3: Yeah, who’s to say kids should be like little adults.
W7: Yeah, I agree. That’s my point. It’s just different. Having these insights could be useful.

In these instances, there is explicit acknowledgment that values are not monolithic but greatly vary in relation to your perceptions of norms. In turn, this acknowledgment presents an opportunity for participants to discuss how their perceptions of norms are deeply influenced by a variety of factors such as cultural reference points, locational context, and intergenerational contexts.

ASSUMPTIONS ON OUTCOMES

While participants reflected on how the interpretation of values is influenced by norms and context, they also reflected on assumptions on how values can be acted on. For instance, in one discussion around the Family Diagnostic

design concept (C3), how the design supported engagement was abstractly understood (e.g., scoring equitable distribution of parenting/labor); however, in discussing the outcomes of the tool itself, varying interpretations of “equitable” emerged.

L2: Isn’t there room to consider that maybe... you know... your wife might be better at doing certain things? I feel like a diagnostic, or whatever we’re calling it... makes this assumption. That, like, we’re all going to be good at all these things equally.
L4: But it wasn’t just that...
L5: I wasn’t seeing it that way. I was thinking more... as a balance within all these different things. So it’s not equal, but it feels fair... I think. Right? I think that’s what we were thinking.

In another example, while participants were discussing the Cultural Insights design concept (C9), participants began to tease apart assumptions around how supporting critical awareness becomes embodied in the design. One participant framed the design as a “learning” tool where the idea was to communicate new ways of doing things, while another participant framed it as an “awareness” tool that does not advocate a new way of doing things but merely presents alternatives.

W5: No, I get it. I get it. We’re trying to challenge the idea that there’s this one way of doing something. So you can learn how to do it differently. But what if it’s not better. You know.
W7: I don’t know if I would say... it’s because... that they need to learn something.
W5: Like, what if it doesn’t fit for me. What’s the point.
W1: I think there’s a need to open the mind. But you can know it, and not have to do it.
W3: Yeah. It’s to consider how things can be different, but you can take what you want from it. Just knowing things can be different can let you let go of things you know aren’t working, or aren’t right.

In numerous instances, we saw the tangibility of tool design push the participants to be more specific on what it means to behave according to that value. For instance, in discussing the “scoring” feature of the Family Diagnostic tool (C3), the more abstract concept of fairness and the assumptions around equality and balance emerged. While one participant saw the role of gendered power through a lens of equal distribution of parental responsibilities, the other participants understood the scores as representative of things being equitable but not equal. In the second example, we see a similar dynamic. A core feature of the Cultural Insights concept (C9) was divergence in parental styles through videos; however, the shift from abstracted value of “explicit critical awareness” meant questioning assumptions on how you build awareness. Is it a paternalistic approach that seeks to get you to “learn how to do it differently,” or is it to just “open the mind”?

LIMITATIONS

One set of limitations of the study revolved around the sample. The fathers in this study were self-selected under the label of “feminist fathers.” It is not clear the extent to which

such self-selection may have hindered or skewed our understanding of how a VSD approach supported certain forms of reflection and discussion. Standardized vetting approaches such as the use of feminist activists to endorse participants (e.g., White 2006) may be worth exploring in future work. In addition, the sample of participants included only fathers, exempting other stakeholders such as co-parents and other caregivers. Other VSD approaches have engaged multiple stakeholders as part of the design process to further enhance and support the negotiation and enactments of values (e.g., Yoo et al. 2013). How the involvement of multiple stakeholders might enhance research into feminist technology design for fathers may be worth further exploration. Lastly, sampling through self-identifying as a “father” may have left out those fathers often situated on the periphery of intersectional violence such as gay fathers, trans fathers, and the like. Future research should further explore those marginalized populations that are too often denied the label of fathers, and can further enlighten the academy on how we might reconceptualize what is meant by fatherhood.

Another set of limitations revolved around how participant discussions were managed. In particular, the way language was open or restricted was not clearly defined for participants. Many of the participants in Group L (the Latinx group) switched to speaking entirely in Spanish or in a mix of English and Spanish at certain points during the workshop, without any acknowledgment of whether all participants spoke Spanish comfortably. The comfort gained by speaking in one’s dominant language about personal values and cultural norms and its implications for vulnerability and authenticity should be further explored. Specifically, the degree to which the fathers would be willing to engage in critical reflection on their own values with a non-Latinx facilitator in English is both worth noting and in need of further investigation. In addition, the way intragroup conflicts were managed during value identification led to a trade-off between specificity and more abstract and generalized values that garnered group consensus. Additional methodological research on how individualized data collection can be paired with group-based approaches for VSD would be useful in future work.

DISCUSSION

REFLECTING ON THE SITUATED NATURE OF VALUES

The idea that knowledge is socially situated is an important pillar in feminism. Feminist scholars such as Dorothy Smith and Patricia Hill Collins argued that marginalized groups, such as women, have subjugated knowledge that affords a unique and diverse standpoint. Black feminist thought highlighted the diversity within women, arguing that all knowledge is partial, and multiple factors are necessary for gaining understanding of groups such as Black women (Collins 1989). These ideas are echoed in work by Donna Haraway through the idea of situated knowledge, which argues that no single person or group can claim an objective form of knowledge or truth (Haraway 1988). These ideas of the socially situated nature of knowledge of an individual or a group is important in understanding what it means to design for feminist technology, in that it requires an ac-

knowledgment of the problems with both universalist and relativistic approaches to feminist technology design. For instance, universalist approaches to designing for feminist fatherhood would prescribe a predetermined value system, in turn telling participants what should be considered feminist values, and what it might look like to design toward certain values. “Third World feminism” is deeply grounded in critiquing this approach to universal feminism, challenging the erasure of other sociocultural factors that are not Western or white (Narayan 2013). On the flip side, however, relativistic approaches to feminism may lack a universal grounding in which to avoid masking the perpetuation of injustice and domination (Narayan 2013). Feminist approaches to technological design in spaces such as data science (i.e., data feminism) have pointed to the importance of expanding the concept of situated knowledge to a pluralistic vision of what is meant by feminist technology (D’Ignazio and Klein 2020). In this approach, we take neither a universalist nor a relativistic approach but rather rely on the multitude of positional perspectives so as to move toward subjective kinds of collective understandings through design. Such an approach is in line with Wajcman’s (2009) technofeminist call for approaches that are fluid and situated rather than essentialist.

Through a VSD approach in which values are made explicit, designers and participants were able to reflect on the situated nature of values, negotiating their sense-making around values. Notable differences in how certain feminist values were embodied in design concepts were found between groups. For instance, in designing toward values of inclusivity, the different marginalization experiences and subjective cultural positionalities of the participants themselves became evident. Designs from the white fathers group sought diversity in parenting practices, while the Latinx fathers group sought to actively combat stereotypes. These differences echo the structural disparities in how fathers from different cultural backgrounds are represented in media and society. Differences in values of care also emerged, with white fathers group designs seeking to support care practices, while Latinx fathers group designs dealt with issues of normalizing care practices and who decides what care looks like. In these differences, we see how the Latinx fathers group questioned hegemonic ideals about care, while also dealing with acculturation dynamics within Latinx spaces. By centering values, the VSD approach affords researchers the opportunity to capture the way values become embodied differently through design, as well as the way they are understood differently from differing cultural perspectives. This is important in that design spaces that embrace a value-centric approach will need to pay careful attention to how design teams negotiate these cultural differences in understanding and enacting feminist parenting values.

However, there is also untapped potential to support reflectivity around feminist subjectivity and intersections with culture, context, and broader themes of power. In particular, connecting reflections to themes of power emerged at various points but was not integrated into the VSD techniques used (e.g., value identification; value comparison). If VSD approaches provide analytical power with which to surface value-centric reflections, the question then is, How

can these reflections be better grounded in ways that are feminist-centered?

VALUES AS A GATEWAY TO REFLECTIONS ON POWER

Value-sensitive design as a methodology seeks to bridge the gap between design and ethics. Through a nonlinear and iterative process, it seeks to help designers consider how technologies impact communities and society so as to explicitly consider and mitigate harms. Like many design methodologies, VSD has evolved since its inception. In particular, VSD has shifted to make universal commitments to what Friedman and Hendry (2019) call the “universal values” of human well-being, justice, and dignity.

However, as the findings suggest, values can be enacted and interpreted differently within a VSD process across cultural contexts, and particularly within the context of hegemonic ideals. Designers can use a VSD approach to consider how designs embody, afford, and reject certain values, but they also need to reflect on how their sense-making around values is itself embedded in systems of subjugation and domination. Using the distinction provided by Schon’s work on reflective practice, I am framing the kind of reflection participants engaged in as reflection on action, where, through contrasting with others’ thinking, participants reflected on the framing of their own thinking (Schon and DeSanctis 1986). In this section, I explore the question, What would it mean for the two reflective practices observed in this study—reflection on authenticity and on interpretation—to be more intimately connected to caring masculinities, understood as masculine identities that reject domination? In other words, how might we guide the reflection that emerged so as to explicitly consider the connection with what hooks (2000) referred to as nondominator culture—a rejection of domination from masculine identities. It is important to note that in guiding reflection, I am advocating not for a set of prescribed values, but rather for a commitment to reflecting on nondominance. In this way, feminist fatherhood is seen not as an outcome but instead as a process—a reflective practice guided by a willingness to reflect against a broader value framing of nondominance.

AUTHENTICITY AND NONDOMINANCE

In reflecting on one’s values authenticity, I am referring to reflections on how one’s own values align with one’s own external expressions. This reflective practice is very much grounded in the question, How do one’s internal feminist beliefs become incongruent with one’s actions? This reflection on its own is invaluable to supporting a feminist design process; however, in conceptualizing a more explicitly feminist VSD approach, what would it mean to connect reflecting inauthentic instances to themes of nondominance? If someone prioritizes certain values, could an explicitly feminist VSD orientation more closely support the interrogation of how perceived importance of certain values might be tied to hegemonic masculinity? Similarly, in the sub-theme of success, we saw instances of participants reflecting on the degree to which they were authentically committed to the outcomes, or success states, of acting on values. How might a wavering commitment to redistributing labor

be connected to dominance in a partnership? In short, there might be an opportunity to map reflections on authenticity to contradictions that overlap with dominance.

INTERPRETATION AND NONDOMINANCE

In reflecting on one’s value interpretations, I am referring to reflections on how values are malleable in the way they are considered normative given certain contexts (e.g., cultural context, location, intergenerational relations). This reflective practice is very much grounded in the question of how the outside mediates one’s sense-making around what one might consider feminist values. In other words, this reflection focuses on how one’s ecology shapes one’s sense-making around what is feminist. Yet again, there is an opportunity here to push this reflective practice in a more explicitly feminist direction. How is our openness to certain ideas related to interconnected dimensions of class, race, and culture? How are perceived assumptions about the future state of an implemented design shaped by our perceptions of equitable access and use? In short, there might be an opportunity to map reflections on interpretation to existing approaches to understanding overlapping and interdependent systems of oppression and dominance.

CONCLUSION

The role of community involvement and participation in design continues to be integral to emerging design approaches focused on tackling injustice, marginalization, and oppression. Concurrent with this focus on inclusivity through co-design is a focus on ways to engage those individuals in processes that support reflection on blind spots toward liberation and justice. In this study, self-identified feminist fathers reflected on their own value systems regarding what it means to be a feminist father through the design of value-centered technology concepts. Through a value-sensitive design approach, the participants engaged in distinct kinds of reflection, such as how authentic their commitments to certain espoused feminist values were, and how their interpretations of certain values could vary greatly across different contexts and assumptions.

POTENTIAL ADAPTATIONS OF VSD APPROACHES

While VSD affords a neutral kind of values-centered reflection that can be useful for feminist tech design, there are perhaps adaptations that might more tightly align a VSD approach with broader goals of feminist technology design. These scaffolds would seek to better connect the kinds of reflection that emerged—authenticity and interpretation—to feminist theory and a universal framing around oppression and nondominance. An important point to highlight is how the role of such scaffolds would seek to prompt specific kinds of reflection, rather than impose specific values or specific interpretations or enactments of certain values.

VALUE SCENARIOS FOR NONDOMINANCE

One potential adaptation to connect reflections on values

authenticity to nondominance is the use of value scenarios. The use of scenarios in design has a rich history (Carroll 2000), acknowledging how narratives remain one of the best ways to contextualize how a design might be used or experienced. For instance, problem scenarios seek to capture the current situation and opportunities for design, while activity scenarios propose future design features that transform existing states (Rosson and Carroll 2002). In VSD approaches, value scenarios have been used in numerous ways, such as prompting reflection on the long-term systemic effects of certain technologies (Nathan, Klasnja, and Friedman 2007); an analytic tool to explore values related to good parenting and mobile applications for monitoring teenagers (Czeskis et al. 2010); and eliciting safety-oriented stories about mobile phone use for homeless young people (Woelfer et al. 2011). In aligning VSD approaches toward a feminist technology design, value scenarios could be used to explicitly guide reflection on issues of nondominance and authenticity. As an example, a value scenario could provide the narrative of a father who has dominant and oppressive interactions with his ex-wife but is very focused on empowering his daughter in ways that are nonoppressive. In this example, the value scenario would connect authenticity (e.g., inconsistent gendered treatment) to dominance (e.g., oppressive interactions) in ways that might elicit certain kinds of value identification reflections.

ENVISIONING CARDS FOR INTERSECTIONALITY

One potential adaptation to connect reflections on interpretation to nondominance is the use of envisioning cards. Envisioning cards have been used in VSD approaches to raise awareness of contextual and systemic effects of proposed technologies (Friedman and Hendry 2012). In an envisioning card, an evocative image is paired with different criteria such as stakeholders, time, values, and pervasiveness, so as to prompt the co-designers to consider particular criteria in their designs. In prior work, envisioning cards have been used in ideation and goal setting with health enterprise systems in East Africa, heuristic value analysis of security in cloud computing, and surfacing value tensions in persuasive profiling (Friedman and Hendry 2012). In aligning VSD approaches toward a feminist technology design, envisioning cards could be adapted to explicitly guide reflection around intersectionality—the overlapping

and interdependent systems of oppression that intersect with issues of gendered dominance (Crenshaw 2017). For instance, an envisioning card could prompt the team to consider the overlap and interdependent force of race in comparing how a value was, or was not, embodied in a design, as well as a design’s interaction with race. Here such an envisioning card could promote reflection on how race influences our interpretations of value, as well as broader design implications. Such an adaptation echoes work in the use of intersectional frameworks to guide reflexivity in co-design work (e.g., Vacca 2017).

In adopting a VSD approach toward feminist technology design, specifically around fatherhood, we see the ways in which feminism can be supported as a value system to interrogate against, rather than as a prescribed value system to design around. Possible adaptations of VSD techniques of value identification, ideation, and value comparisons could include the scaffolds of nondominance as a broad value framing and intersectionality as a way to explicitly connect interpretation to power. It is my hope that deeper methodological connections between the reflective practices that emerge from value-sensitive design and from feminist concepts and frameworks continue to grow.

COMPETING INTERESTS

No competing interests exist.

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Submitted: June 01, 2020 PDT, Accepted: March 17, 2021 PDT

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