

# Embodied, Everyday Systemic Design – A Pragmatist Perspective

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## Introduction

There is a prominent narrative in design research that as design has evolved from craft into a sophisticated professional practice, it has taken on increasing complexity; based on this narrative, as design continues to evolve and expand toward tackling social systems transformation, there is a need for the integration of systems thinking to aid designers in dealing with the complexity that is otherwise beyond their cognitive limit.<sup>1</sup> This colonial narrative of design's progress emphasizes the centrality of thinking over doing and suggests that hope for social change rests on an extension of the way of reasoning of professional designers.

In this context, systemic design is an emerging design domain that has grown in popularity in recent years. It combines design approaches with systems thinking to address complex societal issues, such as housing, foreign policy, immigration, and environmental issues.<sup>2</sup> Increasingly, systemic design is seen as a professional practice done by systemic designers with their own distinct methods and tools for grappling with complexity.<sup>3</sup> Engagement of diverse stakeholder groups is at the core of systemic design practice and its methods.<sup>4</sup> However, the contemporary emphasis in systemic design remains on what Ezio Manzini designates as “expert design,” where the systems change process is led by systemic designers with advanced design skills.<sup>5</sup>

As highlighted by Anne-Marie Willis, “When a question of a philosophical character is posed, such as ‘what is design?’ the answer is mostly already over-determined by the model of professional design as the model of all designing.”<sup>6</sup> By upholding systemic design as primarily a professional practice, the field is positioned in service to capitalism and negates the broad array of intentional shaping that already happens amid social systems. This elitist focus contributes to an active defuturing by design through the erosion of *plurality*—a principle to which the field of systemic design ironically aspires.<sup>7</sup> In recognizing the need for attention to what they call “design by society,” rather than more proximate design by expert

- 1 Kees Dorst, “Design Beyond Design,” *She Ji: The Journal of Design, Economics, and Innovation* 5 no. 2 (2019): 117–27, <https://doi.org/10.1016/j.sheji.2019.05.001>.
- 2 Birger Sevaldson and Peter Jones, “An Interdiscipline Emerges: Pathways to Systemic Design,” *She Ji: The Journal of Design, Economics, and Innovation* 5 no. 2 (2019): 75–84, <https://doi.org/10.1016/j.sheji.2019.05.002>.
- 3 Alex Ryan, “A Framework for Systemic Design,” *FORMakademisk* 7, no. 4 (2014): 1–14, <https://doi.org/10.7577/formakademisk.787>; and Mieke Van der Bijl-Brouwer and Bridget Malcolm, “Systemic Design Principles in Social Innovation: A Study of Expert Practices and Design Rationales,” *She Ji: The Journal of Design, Economics, and Innovation* 6 no. 3 (2020): 386–407, <https://doi.org/10.1016/j.sheji.2020.06.001>.
- 4 Peter Jones and Kristel Van Eal, *Design Journeys Through Complex Systems: Practice Tools for Systemic Design* (Amsterdam, The Netherlands: BIS Publishers, 2021), 18.
- 5 Ezio Manzini, *Design, When Everybody Designs: Introduction to Design for Social Innovation* (Cambridge, MA: MIT Press, 2015), 37–38.
- 6 Anne-Marie Willis, “Introduction,” in *The Design Philosophy Reader*, ed. Anne-Marie Willis (London: Bloomsbury, 2019): 1–8.
- 7 On defuturing, see Tony Fry, *A New Design Philosophy: An Introduction to Defuturing* (Sydney, Australia: University of New South Wales Press, 1999). On plurality in systemic design, see Birger Sevaldson and Peter Jones, “An Interdiscipline Emerges: Pathways to Systemic Design,” *She Ji: The Journal of Design Economics and Innovation* 5, no. 2 (October 2020): 75–84, DOI:10.1016/j.sheji.2019.05.002.

designers, Edward Woodhouse and Jason Patton call for greater care to the broader processes of design, in which myriad persons participate, and the embedded nature of this process within society.<sup>8</sup>

In response, I argue that pragmatist philosophy, which has been foundational to the development of the design discipline (although rarely acknowledged as such<sup>9</sup>), can aid the evolving field of systemic design in more fully understanding the situated, embodied, and everyday nature of systemic design practices. By drawing on the work of classic pragmatists, particularly John Dewey and George Herbert Mead, as well as contemporary feminist pragmatists, including Shannon Sullivan and Patricia Hill Collins, I offer a grounded understanding of everyday systemic design, exemplified by stories of my own lived experience.

A pragmatist perspective on systemic design reveals that the practice of designing social systems is pervasive and mundane. It happens not *to* but *within* and *through* social systems in the everyday. Systemic designing involves an ongoing spiraling of evolving transactions within and between bodies and social systems that are themselves mutually constituted. Recognizing the pervasive nature of systemic design, I call for an emphasis on staying with situated, lived experiences and cultivating bodily habits of careful experimentation in the everyday. I argue that this reframing of systemic design demands a shift in the orientation of the field from crafting expert-driven systems change to cultivating collective reflexivity, so that everyone might continue to shape their own worlds in respectful relation with others.

### Need for an Alternative Perspective on Systemic Design

The field of systemic design touts values of pluralism, yet the methods and tools it champions often have a paradoxical relationship with this ambition.<sup>10</sup> These contradictions can be understood through a closer look at one of systemic design's most championed approaches, creating maps that visualize the complexity of systems, such as giga-maps or synthesis maps.<sup>11</sup> These maps offer representations of focal systems using visual language to understand relations across multiple levels and scales. These artifacts are meant to be interpretive and to incorporate different worldviews, but through visual representation, they end up normalizing certain truths and silencing others.<sup>12</sup> The aim is that these system maps are recognized as always incomplete. However, in their attempt to capture super-complexity, these artifacts can have the effect of perpetuating ontological occupation, as the reality captured in the map contributes to the erasure of other local realities rendered invisible.<sup>13</sup>

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- 8 Edward Woodhouse and Jason W. Patton, "Design by Society: Science and Technology Studies and the Shaping of Design," *Design Issues* 20 no. 3 (Summer 2004): 1–12.
- 9 Brian Dixon, "Experiments in Experience: Towards an Alignment of Research Through Design and John Dewey's Pragmatism," *Design Issues* 35, no. 2 (Spring 2019): 5–16.
- 10 Sevaldson and Peter, "An Interdiscipline Emerges," 75–84.
- 11 See, e.g., Birger Sevaldson, "GIGA-Mapping: Visualization for Complexity and Systems Thinking in Design," in *NORDES Conference Proceedings*, no. 4 (2011): 1–20; and Jeremy Bowes and Peter Jones, "Synthesis Maps: Systemic Design Pedagogy, Narrative and Intervention," in *Relating Systems Thinking and Design RSD5 Symposium Proceedings*, ed. Peter Jones (Toronto: Systemic Design Research Network, 2016): 1–14.
- 12 Jocelyn Bailey and Lorraine Gamman, "The Power in Maps: Reviewing a 'Youth Violence' Systems Map as Discursive Intervention," in *DRS2022 Conference Proceedings*, ed. Dan Lockton et al., (Bilbao, Spain: DRS Digital Library, 2022), 1–19, <https://doi.org/10.21606/drs.2022.563>.
- 13 Josina Vink et al., "Ontological Occupation When Designing for Scale in Healthcare," in *NORDES 2021 Conference Proceedings* (Kolding, Denmark: Nordic Design Research, 2021) 292–301, <https://doi.org/10.21606/nordes.2021.32>.

This flat, static “view from above, from nowhere” of systems positions the systemic designer as an all-knowing manipulator, ready to identify the relevant leverage points for change.<sup>14</sup> This view of systemic design is particularly convenient for the commercial design industry as it perpetuates the capitalist business model through which the systemic designer can be billed out in relatively short-term fundable projects. At the same time, the overemphasis on these professional practices of systemic design, using specialized representational frameworks and tools, undermines the embodied, situated understanding and intentional shaping of social systems. The design of social systems is understood more broadly as the conscious creation of possibility in the human worlds we inhabit.<sup>15</sup> However, everyday design by the community itself, which is essential for maintaining plurality in the ongoing negotiation of systems futures, has been largely ignored in contemporary systemic design discourse.<sup>16</sup> Here, it is important to distinguish between the autonomous design of communities—in which the conditions exist for communities to continually change their own norms from within<sup>17</sup>—and participatory design or co-design—in which members of the community are invited into practices of professional systemic designers through episodic projects.<sup>18</sup>

To build this extended understanding of designing in and by communities, pragmatist philosophy offers a grounded, situated, and pluralistic understanding of how social systems are being intentionally shaped by humans. The work of the classical American pragmatist philosophers, taking place roughly between 1870 and 1945, was an intentional departure from dominant philosophical discussions at the time.<sup>19</sup> In this period, the prominent European mode of thinking emphasized the importance of objectivity, upholding the ideal of a singular notion of the truth, and maintained the dualism of mind and body; in contrast, classical American pragmatists were committed to pluralism and relationality in their view of reality, likely at least in part a result of local Indigenous thought that was influencing European philosophy during that time.<sup>20</sup>

Offering a frame for situated knowledge and action, pragmatism highlights lived, bodily experiences as a critical starting place. It recognizes that experiences are an emergent property of humans’ active engagement with their social worlds.<sup>21</sup> In doing so, pragmatism brings forward the situated, action-oriented nature of creativity whereby humans intentionally influence their environment through bodily action, while the environment shapes their human subjectivity. This situated, action-oriented view of human creativity amid social systems offers a hopeful means for building a more

14 Donna Haraway, “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective,” *Feminist Studies* 14 no. 3 (1988): 575–99.

15 Gary S. Metcalf, *Social Systems Design* (London: Springer, 2014), vii.

16 Arturo Escobar, *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Different Worlds* (London: Duke University Press, 2018), 166–89.

17 *Ibid.*, 172.

18 Josina Vink et al., “Service Ecosystem Design: Propositions, Process Model, and Future Research Agenda,” *Journal of Service Research* 24 no. 2 (2021): 168–86, <https://doi.org/10.1177/1094670520952537>.

19 John J. Stuhr, *Pragmatism and Classical American Philosophy: Essential Reading and Interpretive Essays* (Oxford: Oxford University Press, 2000), 1–9.

20 Scott L. Pratt, *Native Pragmatism: Rethinking the Roots of American Philosophy* (Indianapolis, IN: Indiana University Press, 2002), xi–xviii.

21 Patricia Hill Collins, “Piecing Together a Genealogical Puzzle: Intersectionality and American Pragmatism,” *European Journal of Pragmatism and American Philosophy* 1, sec. 2 (2011): 88–112, <https://doi.org/10.4000/ejap.823>.

grounded, pluralistic understanding of systemic design. I argue that a closer look at the writings of classical pragmatists, especially Dewey and Mead, offers valuable insight into the everyday practice of systemic design and that contemporary feminist pragmatists, like Sullivan and Hill Collins, aid in nuancing that understanding and its implications for systemic design.

### Transactional Bodies Stewing in Social Systems

For Dewey, human existence is a bodily existence. He refers to bodies as organisms, reflecting the dynamic, living nature of our physicality and a continuity between humans and the more-than-human world.<sup>22</sup> Although the physicality of the body is important for Dewey, he is most interested in bodies as acts of performance or “bodying”; such movements, he emphasizes, are based on predispositions of the corporeal body, or what he refers to as habits.<sup>23</sup> For Dewey, humans’ corporeal existence is transactional, meaning that bodies have a co-constitutive relationship with their environment.<sup>24</sup> *Transactional* here can be understood in contrast to *interaction*, which signifies two independently constituted entities engaging in an exchange. The concept of transaction rejects the dualism between the self and the social worlds we inhabit and suggests that they are mutually constituted in a dynamic, evolving relationship.

Dewey reminds us that the skin is an arbitrary boundary of where the body ends and the environment begins. “No creature lives merely under its skin; its subcutaneous organs are means of connection with what lies beyond its bodily frame, and to which, in order to live, it must adjust itself, by accommodation and defense but also by conquest.”<sup>25</sup> Dewey acknowledges the inherent interdependence, continuity, and interchanges between living creatures and their surroundings. To aid in this understanding, one can think about how the human organism must ingest other organisms and turn them into parts of itself and, in doing so, can also play a role in cultivating other organisms; if we simply think about our relationship with food, we can understand that the outside world is anything but outside of us.<sup>26</sup> If we reflect more particularly on social systems, a similar relationship can be understood: Human bodies are composed of social systems through their repeated bodily activities, and these habits in turn shape the systems in which humans are embedded.

Shannon Sullivan presents the metaphor of the stew as a way to understand how Dewey’s concept of transaction embraces both continuity and difference.<sup>27</sup> The stew is not a fondue, where all ingredients completely melt into each other, nor is it a tossed salad,

22 John Dewey, *Art as Experience* (1934; New York: Perigee Books, 1980), 13–15.

23 Unpacking Dewey’s thinking on this, see Shannon Sullivan, *Living Across and Through Skins: Transactional Bodies, Pragmatism, and Feminism* (Indianapolis, IN: Indiana University Press, 2001), 1–40.

24 John Dewey and Arthur F. Bentley, *Knowing and the Known* (Boston: The Beacon Press 1949), 108.

25 Dewey, *Art as Experience*, 13.

26 Lisa Heldke, “It’s Chomping All the Way Down: Toward an Ontology of the Human Individual,” *The Monist* 101, no. 3 (July 2018): 247–60, <https://doi.org/10.1093/monist/ony004>.

27 Sullivan, *Living Across and Through Skins*, 1–40.

where different ingredients remain separate together. Rather, says Sullivan, the ingredients stew together and intermingle so that they constitute each other. For example, an onion in the stew becomes a carrot-y onion and a carrot in the stew becomes an onion-y carrot. These ingredients remain distinct from each other, but they permeate and constitute each other in an ongoing back and forth. Humans are the habits that they embody, and these habits become part of the corporeal body and the social systems.

Mead elaborates further on the social and structured nature of the self. For Mead, bodily habits make up the social structures of our systems, and these structures are what inhabit our bodies through our bodily patterns.<sup>28</sup> For Mead, the very idea of the self is itself a social structure that arises through social experience in society.<sup>29</sup> This conceptualization of the embodied, social self locates the human unequivocally in community and highlights that human embodiment is a product of its relations with the social world. In this way, human bodies are open systems that are co-constituted by social systems. Human embodiment, in its repeated enactments, provides the very structure of social systems. Social systems and bodies are entangled and inseparable. However intertwined, distinctions remain between and within bodies in these systems. Aligned with a pragmatist perspective, I offer an example from my own lived experience of the transactional nature of bodies in social systems, entangled and mutually constituted in and through the habits that make up social structures:

After gym class, I follow to the right exit of the gym and push open the door with the sign “GIRLS’ CHANGING ROOM” as I move in unison with the chattery procession. This collective habit of undressing and redressing together with almost half the class validates my gender—no one questions it, not even myself at the time. The boys’ changing room was the only other option, and that felt to me totally out of the question. Together, we peel off our baggy t-shirts and shorts, sweaty from the circuits we had completed. That attire is appropriate for gym class, but showing our curves was needed to move through the halls of the high school and not be met with averted eyes.

Julie gracefully pulls off her shirt, clasps her wire bra on the outside of her sports bra before pulling the sports bra off entirely, carefully replacing fabrics so as not to reveal her nipples. She layers on a striped Roxy tank top. Then after removing her shorts, tugs back on new dark Parasuco jeans, before proceeding to the mirror to fix her hair and make-up.

28 George Herbert Mead, *Mind, Self and Society: From the Standpoint of a Social Behaviourist* (1934; Chicago, IL: The University of Chicago Press, 1972), xxiv–xxv. See also Barbara Simpson, “Pragmatism, Mead and the Practice Turn,” *Organizational Studies* 30 no. 12, (2009): 3329–46.

29 Stuhr, *Pragmatism and Classical American Philosophy*, 1–9; and Mead, *Mind, Self and Society*, 140.

More timidly, I turn to face the white wall of the changeroom, scan to make sure no one is looking my way, and frantically, but not too frantically to draw attention, switch my gym shirt for my tank top and Cleveland Cavaliers jersey. I don't change my sports bra because that would mean exposing my not-quite-as-expected body to the scrutinizing looks and whispers of my friends and classmates.

With my street clothes on top, I carefully rearrange the prosthetic breast, which hides in my sports bra, into the proper place for mimicking the female silhouette. I had needed to have something inside the right half of my bra since my left breast started developing, and not the right, in grade six. My mom quickly found me a shoulder pad from one of her old blazers in those early days, until a silicone prosthesis could be obtained from the local mastectomy wear shop. It was never a question that chest symmetry was required. It was such an expectation that I was encouraged to visit the plastic surgeon who recommended that a back muscle be pulled to my front so that I could get a breast implant, which would "make my life so much easier." I halted that operation, unwilling to give up the full rotation of my right arm and jeopardize my baseball throw, just so that my Poland-syndrome-body could conform to images of women I had seen in the magazines and all around me in rural Ontario.

Still, I knew I needed to uphold the illusion of symmetry, so I stowed on the prosthetic breast every morning and kept it hidden under my clothing, even when changing. This choice helped me to walk the halls and perform the habits of little women with confidence, even if I was a bit hesitant. After putting on my own too-tight jeans, I proceeded to the mirror behind Julie. As a sporty girl, I could get away with a jersey and jeans, but that would need to be offset with at least some mascara to look a bit more feminine. Still, my eyes usually ended up with dark smudges at the end of the day because I forgot not to rub them. Just then, I carefully looked ahead in the mirror and moved the applicator from the base of my lashes to the tip, like I saw the other girls do.

This story contextualizes how bodies inhabit social structures and, in doing so, uphold the social structures that give shape to our communities and social systems. Through the routine bodily activities of changing in the girls' changing room, wearing a prosthetic breast daily, diligently putting on mascara, and through the reactions I got from others, I performed what it meant in my



Figure 1  
 Transactional bodies stewing in social systems. Illustration by Tianqi Li.

community to “be a girl.” My identity as a sporty tomboy was not a precursor to my habits but was cultivated in and through these repeated bodily activities. These activities were informed by the regular corporeal performances of others in my social context. At the same time, our habits constituted the gender binary that continued to play out in the local community of my small, rural high school, including through the division of sports teams, in gendered interactions in the hallways, and perhaps most acutely for me, at afterschool school dances held in that same gym. My body is a transactional body constituted by my relations with others and constituting the very structures of my community. Figure 1 shows the stewing of transactional bodies in their social environment, illustrated here in the mundane act of dressing within a high school girls’ changing room.

### Mutual Transformation of Bodies and Social Systems

For pragmatists, these embodied transactions with one’s social context, or “situation” as Dewey often says, provide the opportunity for (mutual) transformation. Dewey makes clear that the human organism and social systems are continually being remade

and reconstituted through ongoing changes in relationships.<sup>30</sup> Where there is friction amid these relations, the opportunity for transformation becomes possible, according to Dewey. When humans meet an aesthetic experience of an unsettling situation, where bodily predispositions do not align with the environment, the situation sparks their doubt and catalyzes the process of inquiry, enabling the possibility that a habit connected with an entrenched social structure can be destabilized.<sup>31</sup> When disruption is experienced, the process of inquiry is initiated, and an existing habit may be deemed inadequate or inappropriate.

Mead elaborates on this consciousness or awareness of social structures that one inhabits, calling it reflexiveness or reflexivity.<sup>32</sup> Through such reflexivity, human organisms can intentionally and creatively adjust themselves through a social act. For Mead, reflexivity is the foundation for the intentional shaping of social systems and a fundamental requirement for social progress.<sup>33</sup> From this perspective, social systems design happens through bodies in reflexive transactions within community. The plasticity of the self can be seen as susceptible to and influenced by change in the environment; however, this plasticity is also the very source of power for intentionally transforming social systems.<sup>34</sup> People's habits can generate friction when they relate to other bodies, and in doing so, they can challenge or transform each other when conflict or friction emerges. Mead reminds us that conflicts are not simply between human individuals but between social structures—sometimes even multiple social structures that one individual human inhabits.<sup>35</sup> He reinforces that these conflicting social structures often necessitate reconstruction of our social systems and that changes to social structures inevitably require changes in the humans that inhabit them.<sup>36</sup>

Amid transactions in a social context, the human organism is not caught in a recursive loop of being influenced by social structures and simply reproducing them. Rather, the relationship is more like that of a spiral, whereby enacting some social structures generates some degree of consciousness, enabling the intentional embodiment of particular social acts that can alter the environment.<sup>37</sup> Human organisms are always in transaction with their social context and, as such, have a direct influence on the very social structures by which they are influenced. However, Sullivan explains that a disruption in one human's habit often does not carry enough force to counter the inertia of institutionalized social structures. "For changes in an individual to result also in changes to an institution, an individual needs the efforts of other individuals attempting to make the same sorts of changes."<sup>38</sup>

30 Dewey, *Art as Experience*, 14.

31 Katarina Wetter-Edman, Josina Vink, and Johan Blomkvist, "Staging Aesthetic Disruption Through Design Methods for Service Innovation," *Design Studies* 55 (March 2018): 5–26, <https://doi.org/10.1016/j.destud.2017.11.007>.

32 Mead, *Mind, Self and Society*, 134.

33 *Ibid.*, 134.

34 Sullivan, *Living Across and Through Skins*, 94.

35 Mead, *Mind, Self and Society*, 307.

36 *Ibid.*, 309.

37 John Dewey, *Human Nature and Conduct: An Introduction to Social Psychology*, The Modern Library ed. (1922; New York, NY: Random House, 1930), 328.

38 Sullivan, *Living Across and Through Skins*, 109.



Feminist pragmatists are interested in how pragmatism can become a critical social theory and methodology for approaching the social world.<sup>39</sup> Identifying the social movements led by Black women in the United States as visionary pragmatism, Patricia Hill Collins highlights the value of developing a community of inquiry, always testing ideas in a crucible of experience situated in local social contexts: “Everyday life is something that is rooted, grounded, contingent, dynamic, and holistic. It is characterized by infinite opportunities to engage in critical analysis and take action.”<sup>40</sup>

Hill Collins advocates for critical reflexivity that informs deliberate action in and by community. Feminist pragmatists see this work as a way of approaching practical structures with continued exploration and relational action; they emphasize the importance of living with, not simply visiting, the social negotiations of diverse communities.<sup>41</sup> In terms of always testing ideas in a crucible of experience, Dewey advocates for the habit of not forming fixed, individual habits but of developing flexible, sensitive habits that stay open for intelligent reconfiguration and mutual transformation in the midst of collectives.<sup>42</sup> The following story from my own lived experience is a window into this process of mutual transformation:

More and more commonly, people began to introduce themselves with their pronouns, along with their names. I dreaded every time such an introduction was about to occur because I could not relate to the pronouns that those around me assumed I might use. My body shuddered when I was in a group that someone called “ladies,” and I felt an increasing rub when people referred to me as “her.” After being introduced to my roommate’s partner, whose preferred pronouns are they and them, and awkwardly stuttering over their pronoun formulation one night in our shared kitchen, I started reading everything I could about gender queerness, transness, and non-binary identities, supported by some life-changing recommendations from my housemate.

I slowly began to recognize that the gender I had been wearing like an itchy sweater, and had taken for granted most of my life, was a social structure that I no longer wanted to enact. With the help of a few friends and my partner at the time, I started testing the use of they/them pronouns. Before this shift, I had felt like I could not possibly inconvenience people by asking them to adjust how they referred to me, but when I heard my friends acknowledge me in this way, I felt so deeply seen and respected. I gained the confidence I had previously lacked to cut my hair off and start making tweaks to my wardrobe. As the months passed, I started to appreciate

39 Hill Collins, “Piecing Together a Genealogical Puzzle,” 88–112.

40 Ibid., 108.

41 Danielle Lake, “Pragmatist Feminism as Philosophic Activism: The (R)evolution of Grace Lee Boggs,” *The Pluralist* 15 no.1 (Spring 2020): 25–45.

42 Dewey, *Human Nature and Conduct*, 70–74.

the intensely relational nature of gender. To feel more at home in my body, I needed to do something to acknowledge my non-binary identity among those with whom I interacted every day.

After a tumultuous time of summer reflection, the new school year was upon me, and a fresh batch of master's degree students whom I would soon teach would be in the large auditorium for their orientation. I could not bear the thought of starting the school year without clarifying my preferred pronouns for my colleagues and students. The day before the students were to arrive, I hurriedly crafted an email to my colleagues with cute, comic-like illustrations explaining the gender landscape in which I was roaming around and my pronoun preferences under the subject line "Gender Reveal Party." After a friend's helpful review of the email, I hesitantly hit send.

I received an overwhelming number of supportive replies from my colleagues, but many also expressed worries about messing up my pronouns in their messages. I had some awkward hallway encounters after the email but was also reassured by one colleague who left a treat on my desk with a note that read "no party without cake." Amid this mix of emotions, the time came for the annual staff introductions in the auditorium. I was thankful that the colleague before me introduced herself with her pronouns—even though she was the only one to do so. It made the threshold that felt almost insurmountable just a little bit easier. Next it was my turn. I tried to breathe deeply. After saying my name, I blushed and announced: "I know this might be new for some of you, but I prefer if you would refer to me using they/them pronouns." I tried to be my regular confident self, but my voice cracked as I spoke. The crowd of faces looked at me with friendly but puzzled gazes.

A student came up to me after the introductions to talk through what I meant, and several more asked me for a discussion about gender in the months that followed. I was still mostly referred to using she/her pronouns at school. I corrected people when I had the strength, but I often let it go. Some people did shift how they referred to me, and I know it helped others do the same. Two years later, more folks at the school are using they/them pronouns. I am starting to hear it and other gender-neutral terms more and more in meetings and emails—sometimes even in self-corrections in the moment. Together in our awkwardness, we are muddling through by reconfiguring our habits in our introductions and challenging the social structures associated with gender in our small school community in Oslo.



Figure 2  
 Mutual transformation of bodies and social systems. Illustration by Tianqi Li.

This story of transactional bodies changing in community offers a window into the spiral of entangled evolution in social systems. By living in community with others, I was confronted with an understanding of gender that I had not yet grappled with. Through the labor of others, I started to build an awareness of the social structures that I had previously taken for granted. In small, safer social settings, I began testing what doing things differently with others, like using different pronouns, felt like in my body and in interactions with others. Informed by my own experience, I then worked intentionally to shape how others referred to me and thought about my gender at my school. Although the system did not change immediately and acts sometimes looked more like reproduction than change, a slow evolution occurred as more people joined these shared social acts of using they/them pronouns and gender-neutral language. This work of shaping social structures was not just an intellectual one; it was an embodied activity that involved increased heart rates, quick breathing, blushing, and strengthening new muscles in mouths. It involved awkward moments of stumbling—for myself and others—and sometimes being painfully subsumed by the forces of the status quo. Yet, this personal narrative also is a messy story of mutual transformation that emerges in and through everyday, embodied systemic design. Figure 2 depicts the mutual transformation of bodies and social systems, exemplified through awkward, and sometimes even painful, processes of stumbling over and shifting the use of pronouns.

### Situating Systemic Design in the Everyday

Drawing on the work of classic and feminist pragmatists, I have attempted to explain how social systems are designed by and in transactional bodies through everyday negotiations within communities. By bringing forward my own lived experience of enacting gender, I have shown the embedded nature of systemic design and the ways that systemic design can play out in ordinary, everyday habits, like dressing and introductions. A pragmatist perspective of systemic design highlights bodies as central sites of systemic design. It is particularly important then for systemic design to acknowledge that what is understood as the body is plural, locally situated, and full of incommensurability across cultures and communities.<sup>43</sup>

A pragmatist perspective suggests staying with the plurality of lived bodily experiences in systemic design practices, as opposed to reverting back to extracting and flattening complexity into static representations. The corporeality of human organisms accounts for and navigates situated complexity in ways that are largely underappreciated in more intellectual and rational approaches to systemic design. Greater attention to transactional bodies and lived experiences that cannot be easily translated is needed to embrace the transformative potential of systemic design practices while protecting plurality. Corporeal plasticity and situated creativity offer a hopeful means for engaging in the messy, negotiated, back-and-forth process of the intentional change of social systems by communities.

A pragmatist perspective on systemic design further highlights the importance of reflexivity—an awareness of the social structures that we inhabit—that is cultivated through the experience of unsettling situations. Reflexivity enables human organisms to move beyond simply reproducing social structures in transactional bodies through habit, toward performing intentional social acts and consciously reforming the social structures that influence them. Nurturing collective reflexivity enables humans to navigate and continue to shape their own communities in relationship with others—including and especially by working across difference.<sup>44</sup> Mead argues that collective reflexivity is indeed one of the conditions needed for changing the social structures of a community from within.<sup>45</sup>

This focus on cultivating collective reflexivity allows for a departure from the overemphasis on professional systemic design and moves toward enabling the intentional change of “traditions traditionally” within local communities, connected with Escobar’s call for autonomous design.<sup>46</sup> It also resonates with Bela Banathy’s

43 Ahmed Ansari, “Plural Bodies, Pluriversal Humans: Questioning the Ontology of ‘Body’ in Design,” *Somatechnics* 10 no. 3 (December 2020): 286–305, <https://doi.org/10.3366/soma.2020.0324>.

44 Lake, “Pragmatist Feminism as Philosophic Activism,” 25–45.

45 Mead, *Mind, Self and Society*, 134, 310.

46 Escobar, *Designs for the Pluriverse*, 172–73.

urge for everyone who affects or is affected by the consequences of design to be part of the designing community.<sup>47</sup> Banathy suggests that “[n]obody has the right to design social systems for someone else. It is unethical to design social systems for someone else. Design cannot be legislated, it should not be bought from the expert, and it should not be copied from the design of others.”<sup>48</sup> A pragmatist perspective extends Manuela Aguirre’s research in systemic design around cultivating co-designing cultures that nurture situated experimentation<sup>49</sup> by highlighting the need to carefully relocate such efforts beyond organizational contexts and into everyday community life.

This more mundane understanding of systemic design, brought forward through pragmatism, does not apply the model of professional systemic design to these more pervasive practices of designing social systems. Rather, recognizing the divergence across bodies and social contexts, it highlights a more generic understanding of systemic design, incorporating vast plurality in its embodiment. I argue that this reframing of systemic design demands a shift in the orientation of the field: from crafting expert-driven systems change to cultivating collective reflexivity so that everyone might continue to shape their own social worlds relationally. This perspective on systemic design reveals a critical means of community self-determination and an alternative approach to direct democracy within social systems.

Furthermore, a pragmatist perspective challenges systemic designers to ground themselves in their own bodies and situated social worlds, as well as to acknowledge that they cannot fully capture and consolidate the bodily experiences of others within social systems. Instead, they might work to nurture collective reflexivity and cultivate bodily habits of careful, relational experimentation in the crucible of experience among a community of inquirers. Learning from the work of Black feminists that are visionary pragmatists, it is crucial that systemic designers apply to this embodied, everyday work an interrogation of power and inequity; to this end, systemic designers need collective principles to guide pragmatic action, rather than seeing any ends as sufficient in this process of ongoing mutual transformation amid plurality.<sup>50</sup> Here, the principles of design justice that promote a community-led design approach, honoring lived experience and local knowledge while seeking liberation, are well aligned with such a pragmatist perspective and offer a hopeful starting point that demands to be further localized.<sup>51</sup> Furthermore, explicit connection to the growing body of work on oppression studies in design can aid systemic

47 Bela H. Banathy, *Designing Social Systems in a Changing World* (New York, NY: Springer Science+Business Media, 1996): 231–34.

48 *Ibid.*, 228.

49 Manuela Aguirre Ulloa, “Transforming Public Organizations into Co-designing Cultures: A Study of Capacity-Building Programs as Learning Ecosystems” (PhD Thesis, Oslo School of Architecture and Design, 2020).

50 Hill Collins, “Piecing Together a Genealogical Puzzle,” 88–112.

51 Sasha Costanza-Chock, *Design Justice: Community-Led Practices to Build the Worlds We Need* (Cambridge, MA: MIT Press, 2020): 190–204.

designers in recognizing the oppressive nature of existing social systems and in working consciously and carefully with struggles toward liberation.<sup>52</sup>

Everyday, embodied systemic design is not a design discipline and should not be disciplined, but if appreciated and nurtured, it can contribute to a more relational, pluriversal shaping of social systems. A pragmatist perspective challenges colonial narratives of progress, which responds to ideas of increasing complexity in design with new ways of reasoning. Alternatively, this perspective recognizes the incredible capacity of embodied human organisms to navigate immense complexity in the everyday and, together, to leverage their entangled agency to intentionally and materially adapt the social systems that they inhabit. In this way, banal bodily acts are not simply a history from which design has evolved; instead, they are the very foundation of autonomous social system transformations toward which design increasingly aspires.

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52 Frederick van Amstel, Rodrigo Freese Gonzatto, and Lesley-Ann Noel. "Introduction to *Diseña 22*: Design, Oppression, and Liberation," *Diseña 22*, no. 2 (2023): 1–5.