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Redesigning Worldviews: Maintenance, Repair, and Upgrade of a Mind in Transition

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Abstract: In our current age of rapid ecological and social collapse, few would disagree that radical change is needed. Whilst it is true that systemic change takes time, much of this inertia is caused by a reluctance to adjust worldviews on an ongoing basis. The dominating influence of worldviews, when neglectfully uncultivated, blocks progress by reducing openness and willingness to change. Building on Transition Design's focus on "mindsets and postures," we claim that, unlike the materials and components of manufactured products, beliefs and values constitute a worldview. This paper identifies key barriers to a worldview in transition and argues that the tendency of worldview to settle on a "single story" is too common and entirely at odds with the pluralistic demands of Transition Design. Growing from understandings of product care, we explore the analogous frames of "maintenance," "repair," and "upgrade" to help activate the transitioning of worldviews. Supporting designers in developing greater curatorial agency over the content and structure of their worldviews will establish fertile ground for change, and in so doing, accelerate the transition to a sustainable future.

Keywords: Worldview - Beliefs - Values - Stories - Maintenance - Repair - Upgrade - Cognitive Dissonance - Systemic change

[Abstracts in spanish and portuguese at pages 113-114]

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Curating a Worldview

A worldview is "a person's total phenomenal outlook on the world" (Kant, 1790). This totalizing, unifying idea imposes a coherent, organizing principle to an otherwise disparate collection of life experiences. Further, a worldview is profoundly influential, and provides the "foundational substrata, or skeleton, upon which all thought, feeling, and action hinges" (Naugle, 2002). In this manner, it is critically important to our psychological well-being, provides a mental map that helps us find our way around the experiential environment (material, digital, human, or otherwise), and is something we defend passionately when challenged –yet we must challenge it. However, worldviews harden and settle upon established ideas, which anchors us in a past that no longer exists. They gather weight, like an ideological ball and chain, slowing progress and introducing drag to otherwise fluid and free processes of individual and societal transition.

Much is known about the constituent parts of a worldview, and how they form (e.g., life story narratives, personal ideologies, intellectual philosophies of life, just-world belief systems). In contrast, little is known of the integrative curation of those disparate parts. In fact, "there is nothing that could be called a unified psychology of worldviews in the research literature today" (Nilsson, 2013). Moreover, a worldview is a way of describing the universe and life within it, both in terms of what is (beliefs) and what ought to be (values). In this context, very few people have organized, narrative philosophies of life, but everybody has a foundation of beliefs and values that influence how they experience the world, and in turn, how they think, feel, and act within it. A given worldview can be defined as follows:

... a set of beliefs and values regarding what exists and what does not, what objects or experiences are good or bad, and what objectives, behaviors, and relationships are desirable or undesirable. A worldview defines what can be known or done in the world, and how it can be known or done. In addition to defining what goals can be sought in life, a worldview defines what goals should be pursued (Koltko-Rivera, 2004).

However, far from a totalizing, all-encompassing frame, worldviews are incomplete, fabricated, and fallible. Despite our reliance on them, they are universally unreliable as sources of objective, rational sense-making as they house hidden beliefs and assumptions —which steer and direct our feelings, thoughts, and actions—that are often unprovable yet provide the epistemic and ontological foundations for other beliefs within a belief system (Kolt-

ko-Rivera, 2004). In this manner, a worldview comprises a collection of stories, loosely based on real-life events. Chimamanda Ngozi Adichie, a Nigerian novelist, referred to this as "the dangers of a single story" (2009). She shared her experience of leaving Nigeria to attend a United States university and having her American roommate be shocked that she liked listening to Mariah Carey, rather than "tribal music," and noted that Nigeria happens to have English as its official language. Further, Adichie warned of how vulnerable we are in the face of simplistic and often false stories and highlighted their power and influence in shaping people's view of the world and the myriad people and things along within it. Single stories, she argued, "show a people as one thing, as only one thing, over and over again, and that is what they become" (Adichie, 2009). Further, she spoke of how, throughout her life, single stories flattened experiences and overlooked the countless other stories that have formed her. They created stereotypes, which hardened over time, and the problem is not that they are untrue, but that they are incomplete: they make one story become the only story.

Worldviews frequently serve to divide us, fostering adversarial relations between groups with seemingly misaligned values and beliefs. Jones (2013), a political commentator, author, and lawyer, lamented the role that liberals played in creating the conditions in the US for Trumpism. He brought our attention to the negative, accusatory judgements from both sides of the aisle –the self-reinforcing echo-chambers we construct, to hold our tenuous realities in place. "If you only listen to NPR, only watch CNN, and only read the *New York Times* and say, 'I know what's happening,' then you're committing the same kind of mistake as somebody who only reads the *Wall Street Journal*, watches Fox News, and listens to Rush Limbaugh on the radio" (Jones, 2013). Further, he highlighted the set of stories, assumptions, and ideas that are being reinforced with repeated exposure to these politically biased sources. Here, he noted that we can disagree without disrespecting, yet the mistake both Democrats and Republicans make every day is to hold the other side in contempt, which represents a fundamental failure, on both sides, to validate a world that sits outside of your own limited, heavily curated worldview.

Nevertheless, our worldviews protect us in this way, offering refuge from the existential horror of a world spiraling out of control. It is through the observed, relational disconnect with the worldview of another that we, in turn, notice the presence and form of our own worldview. That is, through difference, we see ourselves anew. Indeed, worldview is a social construct. No worldview exists in isolation and is codependent upon a wider societal whole. Moreover, solitary life experiences and reflection do not by themselves have nearly as much potential to increase worldview awareness as does the encounter with other worldviews, (Nilsson, 2013; Taussig, 2010) whether experienced as positive and affirming, and negative and destabilizing. Thus, it is through the differences that we notice ourselves. In this manner, other cosmologies, belief systems, and value systems act as mirrors to compare with our own modern unquestioned habits, practices, beliefs, and values (Taussig, 2010). They do this by making it clear to us how strangely irrational the practices and beliefs we take for granted are in the face of other ways of being and doing (Ansari, 2019). Indeed, whilst a worldview can be understood as a unified whole, it exists more as a dynamic swarm of a myriad moving parts -a unifying "story of stories," if you will. It is difficult for a person to recognize their own worldview as the limited, historically, culturally, and subjectively finite perspective on reality that it is, and to see how strongly it determines their choice-making (Nilsson, 2013). We are, in this sense, "encapsulated" (Royce, 1964) —held captive within the confines of our worldviews. We cling to them dearly yet fail to see them as the mirage of coherence and surety that they so convincingly project to us. However, we are not typically aware of our worldviews in our everyday lives. Indeed, we use them to act in a habitual, unconscious way, and thus, we rarely reflect upon them. In fact, they are so omnipresent in our lived experience that like the fish inhabiting the ocean, we may go through life without realizing the water was ever there.

Worldviews as Protective Shells

A worldview provides a "protective shell" (Naugle, 2002) that shields us from the pain and suffering of an overwhelming, uncertain, and traumatizing existence. Unconsciously, we ask ourselves: does this information strengthen my protective shell, or does it weaken it? Do these new ideas fortify my protective shell or form cracks in it? Like a large boulder in a fast-flowing river, a worldview offers refuge from the turbulence of life outside. It is thus an eddy of certainty that keeps us –and others like us– unified. In this manner its shielding, unifying capacity is central to "existential human needs" (Max-Neef *et al.*, 1989) like protection, understanding, or identity. Further, we filter incoming information based on its alignment with our worldview, embracing that which reinforces it, and rejecting that which does not. A worldview can thus be characterized as a "dialectical struggle" (Nilsson, 2013) between the progressive pursuit of new information on the one hand, and the conservative resistance to new information that undermines the coherence of one's existing worldview on the other.

However, information from beyond the edges of a worldview elicits cognitive dissonance, which is the disharmony experienced when holding two or more cognitions simultaneously. It occurs most notably when a person holds contradictory beliefs, ideas, or values, and is typically experienced as psychological stress when attempts are made to reconcile these opposing ideas. Coping with the nuances of contradictory ideas is mentally stressful and requires enormous energy and effort to reconcile these differences. We strive for internal psychological consistency to function mentally in the world, and it creates genuine psychological stress when this consistency is disturbed or compromised. Moreover, through these boundary situations, we momentarily experience a world beyond our own, as experienced by another, and these either trigger curiosity, openness, and growth or fear, defensiveness, and self-solidarity. Due to the heavy cognitive load this requires, "some people would inevitably resolve dissonance by blindly believing whatever they wanted to believe" (Festinger, 1962). A person who experiences this kind of internal inconsistency tends to become psychologically uncomfortable and is therefore motivated to reduce the cognitive dissonance to restore balance and harmony (Festinger, 1957). Thus, in today's fast-changing world, where there are so many problems that demand our attention, we need a strong will to not let ourselves slide into the familiar, self-protection coping mechanisms—to retreat back under our protective shell and seek comfort in its familiarity.

Our relationship with difference comes sharply into focus at this point. Specifically, how we process information that feels at odds with what we believe and understand. Further, the phenomenon of cognitive dissonance draws attention to much of this. These barriers represent the antithesis of growth and the avoidance of change; a form of cognitive inertia, which sees us resisting change, and justifying our indifference to the critical, systemic issues we ought to be actively working to dismantle. This is the "fixed mind in operation, working to keep things just the way they are," (Dweck, 2015) and creating a new story to make it feel acceptable to do so.

When an idea is already held, letting go of it and considering a new one is challenging. One might even say it goes against our nature to do so as it requires us to question the validity of our experience. This preferencing of what comfortably aligns with your existing skills, values, and worldview, is certainly not unique to design. We are drawn to information, ideas, arguments that reflect their inner world, and conversely, are repelled from things that challenge or disrupt it. This form of myside-bias occurs when "people evaluate evidence, generate evidence, and test hypotheses in a manner biased toward their own prior opinions and attitudes" (Stanovich et al., 2013). This process-filtering means that our unconscious biases determine what new information we value and reject. A person's expertise, in this way, can become more like a restrictive cage than a platform upon which to mount any kind of novel, exploratory, and open inquiry. Without a fluid, adaptive pattern of reinvention, one's "expertise" becomes a static, dead object rather than a dynamic, living process. "These comfort zones are characterized by a behavioral state in which a person operates in a familiar, anxiety-neutral context" (Bardwick, 1995). The "cage of expertise," therefore, traps us inside our own worldview, and prevents us from freely roaming among the plural, contrasting worldviews of others.

Caring for a Thing: Maintenance, Repair, and Upgrade

We propose that our material environments mirrors should be tended to in the same way that we do so for our cerebral environments. While the two are ontologically entangled, they feel separate due to the apparent oppositional nature of their external and internal situatedness. However, it is well-understood that the material and nonmaterial worlds are entangled; five decades of ontological design tells us this much. Here, how care practices toward material things might mirror that of the non-material is well understood. That is to say, the following question can be asked: might we reimagine and repurpose product care practices so they might support us in tending the inner landscape of worldview? To explore this, we will first discuss the care practices of maintenance, repair, and upgrade in relation to tangible objects, and then apply this to the intangible context of worldview.

• Maintenance is preventative: It is the ongoing practice of care to ensure a product remains operational. An important aspect of living with material things is maintenance. Effective maintenance practices reduce the likelihood of object failure. They take the form of small, routine care rituals that are intended to prevent failure by keeping an object in its

new state. In the case of a cotton shirt, for example, we might take care to wash it at low temperatures, avoid ironing its exterior surface, and always hang it carefully in the wardrobe. In this way, maintenance is about taking care by making small efforts to keep things good and look after them.

- Repair is restorative: It requires us to first notice a failure to then take action to resolve it. Through repair, we seek to bring an object back to its original, fully functioning state. Picture that same cotton shirt, hanging in the wardrobe, but now with a button that just came off in your hand as you attempted to undo the cuff. We might repair the shirt by finding some matching thread and sewing it back on. The practice of repair, in this sense, returns something to its former state. It can be seen as a partisan act that requires us to overcome object failure by taking matters into our own hands rather than passively surrendering to the problem and giving up.
- Upgrade is progressive: It requires us to replace old, out-of-date parts with new, up-to-date ones. It keeps objects current and prevents them from becoming so out of date that they no longer function. Unlike maintenance and repair, upgrading requires the "death" of obsolete parts to make way for newer parts better suited to the changing times that the object now finds itself in. In the context of an upgrade, we might take that cotton short with the missing button on the cuff, remove all its buttons, and replace them with bright red ones with matching red thread. Thus, we would see the product failure as an opportunity for growth. The practice of upgrading helps objects maintain currency with changing times. Importantly, the upgrade does not transform the entire object but just an element of it. Nevertheless, the effect of the upgrade on the overall object experience is significant and is perhaps even disproportionately so in relation to the minor investment of energy on the part of the user.

Worldviews as Material

Unlike the materials and component parts of tangible objects, beliefs and values constitute a worldview, in which their unified assemblage are sewn together with narrative threads, thus forming a patchwork of stories that tell us about the world and its so-called "truths." Like a sheet thrown over a dining table, we drape these stories over the world to give it a simpler and more familiar form and silhouette; one we trust and understand, and that is preferable to our subjectivity.

Notionally, there is a near-material presence to worldview. Materially oriented metaphors are commonly used to give shape and form to the elusive concept of worldview. It blocks our path in the way that a wall of fired-earth brick might and elevates the audibility of favorable voices —and mutes dissenting others— in the way that a directional-mic does. Moreover, our worldviews light the way to certain futures, whilst plummeting countless others into darkness, like a flashlight gripped in a hand, panning left and right, seeking coherence. Alternatively, perhaps, they are more like foundations, which accumulate over

time through myriad encounters with people, places, and things. Think of a worldview like a muddy riverbed; with accumulated sediments, built up over generations, and shaped by external forces; as a place-based assemblage, laying testament to that which has happened. We notice this underlying "sediment" the moment it is challenged. Indeed, if your foundation is rocked by a question or idea, the problem is not in the question or the idea, but it is in the foundation itself. The accumulative, steady dimensions of worldview might not be a cause for concern if we were to stay in place, and the conditions of that place were to remain fixed. In fact, one could argue that one built "in" a specific place, and "by" a specific place create optimal conditions for a highly bespoke and place-based mode of world-knowing to form. Yet, we do not stay put nor does the world itself remain the same as it is continually shifting and held in the river of change. Here, the notion that "everything flows" derives from Heraclitean thought, which likens the flow of a river to the eternal flow of change over time. In this analogy, the materials, objects, and environments we inhabit represent a continually shifting spatiotemporal assemblage in perpetual flux (Peters, 1967). It is therefore critically important to frequently reexamine our worldviews, just as it is to reexamine the ever-changing world itself.

However, how might practices of maintenance, repair, and upgrade relate to the intangible, non-material domain of worldview? To engage this question, we apply the logics of these three forms of "care" to worldview and discuss the transferable qualities.

Maintaining a Worldview

To maintain a worldview is to keep the story straight. The care practice of maintenance is characterized by small, frequent acts of conservation. The maintainer's motive is to prevent change and keep things the way they are preserving the original condition of a thing (a worldview, in this case) to ensure it remains stable and known. It follows, then, that the maintenance of a worldview is to protect it from outside interference. Thus, maintenance is conservative. Regardless of one's left or right political leanings, a well-maintained worldview is one that becomes a purer, clearer version of itself, over time. There is no growth or change here and just reinforcement. More specifically, a small, everyday act of maintenance might be the immediate denial of contrasting notions of racial equity or the automatic rejection of an argument against climate change. These maintenance practices effectively clean the dirt and dust of a worldview to preserve its integrity and shield it from foreign, outside influences. When maintaining a worldview, these dissonant stories are the grime that should be wiped away to keep things working, just the way we like them. In the case of worldview, this kind of maintenance is more like weeding, where you remove the plants you do not want, and leave the ones you do. However, should the weeds be left unattended, they will spread, and overtake everything. Thus, to "maintain" a worldview, is to allow confirmation bias to guide how we search for, interpret, favor, and recall information that confirms or supports our beliefs or values (Hart et al., 2009); this involves favoring stories and ideas that support our views, whilst rejecting those to the contrary. We see this perhaps most acutely in the context of social media. Machine learning algorithms

only feed individuals the information they are likely to agree with, while excluding all opposing views (Pariser, 2011). In this way, social media allows us to exist within a self-reinforcing, informational echo chamber. Importantly, these choices are not consciously made but instead are the result of a "fast mode of automatic thinking" (Kahneman, 2011), which lacks both critical reflection and self-examination. Further, thinking like this "feels right," and happens naturally without any pause for self-doubt or critical reflection.

Repairing a Worldview

To repair a worldview is to take corrective action when we notice the story has slipped. Repair is less frequent, and marginally less conservative, but it is still, in the end, a restorative act of conservation -of taking action to return things to their original state. That is to say, the efforts made by an individual in the context of repair do not seek to change the worldview itself, but rather to realign their actions with the underlying worldview already held. Moreover, repairing a worldview requires some degree of critical reflection to notice that one has straved off course. From that point on, though, the primary motive is simply to return to course (rather than course correct and define a new one). Once back on course, we feel the comfort and security of our protective shell once more, and balance, it seems, is restored. However, reparations are ordinarily superficial and fail to address the underlying cause of the problem itself (Hannah-Jones, 2020). They include a feeble apology, a payoff, or a promise to not do something again. Meanwhile, in transitional justice, reparations serve to repair the consequences of past violations by "addressing the root causes of past violations and ensuring they do not happen again" (International Center for Transitional Justice, 2021) This statement is particularly relevant to worldviews in terms of the commitment to addressing "root causes" to ensure the violation is not repeated. However, maintenance and repair in this manner, are insufficient as they are too conservative and fail to make any progressive, structural change. In other words, the underlying cause of the problem is still there, and the repairer simply gets better at apologizing for the harm they continue to inflict.

Upgrading a Worldview

The question to consider now is how does one upgrade a worldview. This does not refer to maintaining or repairing it, but actually removing outdated parts and replacing them with new ones. Here, an upgrade, in this sense, is the ultimate transformation, but one that also comes at the highest personal cost. Unlike maintenance and repair, upgrade involves actual structural change. Here, old ideas must be retired to make way for new ones. The process of upgrading can be violent and traumatic in this regard, as it requires the removal and destruction of the old to make way for the new, thus creating space for the inclusion of something else less familiar. Rather like the dismantling of monuments that link

a community to a past it would rather forget, we might think of worldview as comprising certain ideological relics, which ought to be taken down and destroyed. This is as Keynes (1936) recognized, "the difficulty lies, not in the new ideas, but in escaping from the old ones, which ramify, for those brought up as most of us have been, into every corner of our minds". Moreover, upgrading requires us to step out from under our protective shell and expose ourselves to the values and beliefs of others. It is not a fake, performative mode of engagement, where we nod and smile whilst inwardly disagreeing, but a fuller mode in which one makes themself open and vulnerable to the worldviews of others. Thus, to upgrade is to knowingly have one's status quo disrupted and be grateful for the growth experience that comes with that. This is different from when the new ideas fill a void, and we simply add new stories to the existing collection. Contrarily, an upgrade is what happens when an old idea is overthrown by a newer one. This distinction is key: it is like the difference between "finding religion" and "changing religion". The former is significantly less traumatic, and likely, than the latter. Further, with an upgrade, there is destruction before construction in that there is unlearning before learning (Senge, 1990). To use a living systems analogy, to upgrade a worldview, we must cease to petrify our worldview in a frozen, fixed state, and instead allow for the natural, ecological succession of values and beliefs. Thus, we must freely enable the onset of new ideas, even if those new ideas come at the expense of older ones.

What will it Take to Redesign a Worldview?

The most significant thing a designer can design is their own worldview. But the question of how one does that remains. In a fast-paced, modern society, we ought to feel compelled to reinvent and upgrade ourselves and revisit our beliefs and values. Change is the only constant, and we know that. We must not merely invent new ideas and products, but above all, we must reinvent ourselves, repeatedly, to prepare for an ever-changing world (Harari, 2019). At the heart of this reinvention is worldview, as it is through this that all design choices are shaped.

As we have discussed in this paper, worldviews are not static, dead objects but dynamic, living things. As per this way of thinking, worldviews are ecological. Yet, to openly accept the ecological succession of belief and value requires extraordinary levels of resilience. Indeed, resilience, as ecologist Bateson (2000) noted, is "the ability of a system to respond to disruption in a non-defensive, creative way," which refers to adapting, changing, and growing. However, many inaccurately assume that resilience is more to do with a steadfast stoicism that helps one to remain anchored in place against adverse, changing conditions. This is not resilience but more of an impotent dependency upon current circumstances, which is ruled by fear of change and an excessive emotional attachment to the status quo. We see this conservatism in political discourse, where leaders promise visions of a future anchored in the maintenance and repair of an obsolete world. Others offer more progressive future visions, laced with the spirit of upgrade. This is a world that has not happened before and requires old ways to be dismantled, so the new ways might emerge.

However, the rate of ecological and social change we urgently need is frustratingly slow. As Irwin (2019) argued, "traditional design approaches, characterized by linear processes and de-contextualized problem frames, the objective of which is the swift realization of predictable and profitable solutions, are inadequate for addressing today's complex, multifaceted, wicked problems". Much of this inertia is caused by the psychosocial challenges designers face, which present significant barriers to sustainability transitions. In this context, the enormity of our interconnected ecological and social crises requires urgent, large-scale responses. This compels us to ask why the profundity of tools and methods has not delivered the scale and speed of sustainable transformation they so optimistically promise. The world is taking notice and taking initiative, but progress seems slow and unambitious. Here, how can we speed-up the process of sustainability transitions? (García & Gaziulusoy, 2021). Thus, the inner, experiential processes of sustainability transitions must become a higher priority for design research. We must focus more on "how" inner change happens over time, rather than "what" outer changes we want to see happen. By focusing more on the lived experience of a mind in transition, we bring our attention to the fluid, mutable capacities of worldview.

Worldview holds us in place and forms an essential foundation for identity formation and emotional survival. However, this "holding in place" can become problematic when the world around us is in constant flux. In other words, the "place you are being held in" either no longer exists or is now glaringly-oppositional to the envisioned place we need to transition toward. We argue that this dissonant mismatch between our understanding of the world as it is and reluctance to engage with the world as it could be represents a significant barrier to sustainability transitions.

References

Adichie, C. N. (2009). *The danger of a single story* [Video]. TED Conferences. https://www.ted.com/talks/chimamanda_ngozi_adichie_the_danger_of_a_single_story

Ansari, A. (2019). Decolonizing design through the perspectives of cosmological others: Arguing for an ontological turn in design research and practice. *XRDS: Crossroads, The ACM Magazine for Students*, 26(2), 16-19. https://doi.org/10.1145/3368048

Bateson, G. (2000). Steps to an ecology of mind (1st ed.). University of Chicago Press.

Dweck, C. (2015, September 22). Carol Dweck revisits the 'growth mindset'. Education Week. https://www.edweek.org/leadership/opinion-carol-dweck-revisits-the-growthmindset/2015/09

Festinger, L. (1957). A theory of cognitive dissonance. Stanford University Press.

Festinger, L. (1962). Cognitive dissonance. *Scientific American*, 207(4). 93-107. https://doi.org/10.1038/scientificamerican1062-93

García Garduño, C., & Gaziulusoy, I. (2021). Designing future experiences of the everyday: Pointers for methodical expansion of sustainability transitions research. *Futures*, *177*(1), 1-12. https://doi.org/10.1016/j.futures.2021.102702

Hannah-Jones, N. (2020, June). It is time for reparations. *The New York Times*. https://www.nytimes.com/interactive/2020/06/24/magazine/reparations-slavery.html

Harari, Y. N. (2019). 21 lessons for the 21st century. Random House Publishing Group.

Hart, W., Albarracin, D., Eagly, A. H., Brechan, I., Lindberg, M. J. & Merrill, L. (2009). Feeling validated versus being correct: A meta-analysis of selective exposure to information. *Psychological Bulletin*, *135* (4), 555–588. https://doi.org/10.1037/a0015701

International Center for Transitional Justice. (2021). *Reparations*. https://www.ictj.org/our-work/transitional-justice-issues/reparations

Irwin, T. (2019). The emerging transition design approach. Cuaderno Journal, 73, 149-181.

Jones, V. (2013). *Divide and conquer: The bipartisan plan to break America* [Video]. The Big Think, https://bigthink.com/videos/van-jones-divide-and-conquer-the-bipartisan-plan-to-break-america/

Kahneman, D. (2011). Thinking, fast and slow. Farrar, Straus and Giroux.

Kant, I. (1790). Critique of the power of judgment.

Keynes, J. M. (1936). The general theory of employment, interest and money. Palgrave Macmillan.

Koltko-Rivera, M. E. (2004). The psychology of worldviews. *Review of General Psychology*, *1*(8), 3-58.

Max-Neef, M., Elizalde, A., & Hopenhayn, M. (1989). Human scale development: An option for the future. *Development Dialogue*, A Journal of International Development Cooperation. 1(1), 5-80.

Naugle, D. (2002). Worldview: The history of a concept. Eerdmans Publishing.

Nilsson, A. (2013). *The psychology of worldviews: Toward a non-reductive science of personality*. Lund University.

Pariser, E. (2011). *Beware online "filter bubbles"* [Video]. TED Conferences. https://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles

Peters, F. E. (1967). Greek philosophical terms: A historical lexicon. NYU Press.

Royce, J. R. (1964). The encapsulated man: An interdisciplinary essay on the search for meaning. Van Nostrand.

Senge, P. (1990). The fifth discipline. Doubleday.

Stanovich, K., West, R., & Toplak, M. (2013). Myside bias, rational thinking, and intelligence. *Current Directions in Psychological Science*, 22(4), 259-264. https://doi.org/10.1177/0963721413480174

Taussig, M. T. (2010). The devil and commodity fetishism in South America. University of North Carolina Press.

Resumen: En nuestra era actual de rápido colapso ecológico y social, pocos estarían en desacuerdo con la necesidad de un cambio radical. Si bien es cierto que el cambio sistémico lleva tiempo, gran parte de esta inercia se debe a la renuencia a ajustar las visiones del mundo de forma continua. La influencia dominante de las visiones del mundo, cuando no se cultivan con descuido, bloquea el progreso al reducir la apertura y la disposición

al cambio. Sobre la base del enfoque de Transition Design en "mentalidades y posturas", afirmamos que, a diferencia de los materiales y componentes de los productos fabricados, las creencias y los valores constituyen una visión del mundo. Este artículo identifica las barreras clave para una visión del mundo en transición y argumenta que la tendencia de la visión del mundo a asentarse en una "historia única" es demasiado común y totalmente contraria a las demandas pluralistas del Diseño de Transición. A partir de la comprensión del cuidado del producto, exploramos los marcos análogos de "mantenimiento", "reparación" y "actualización" para ayudar a activar la transición de visiones del mundo. Apoyar a los diseñadores en el desarrollo de una mayor agencia curatorial sobre el contenido y la estructura de sus visiones del mundo establecerá un terreno fértil para el cambio y, al hacerlo, acelerará la transición hacia un futuro sostenible.

Palabras clave: Cosmovisión - Creencias - Valores - Historias - Mantenimiento - Reparación - Actualización - Disonancia cognitiva - Cambio sistémico

Resumo: Em nossa era atual de rápido colapso ecológico e social, poucos discordariam de que uma mudança radical é necessária. Embora seia verdade que a mudança sistêmica leva tempo, grande parte dessa inércia é causada pela relutância em ajustar as visões de mundo continuamente. A influência dominante das visões de mundo, quando negligentemente não cultivada, bloqueia o progresso ao reduzir a abertura e a vontade de mudar. Com base no foco do Transition Design em "mentalidades e posturas", afirmamos que, ao contrário dos materiais e componentes dos produtos manufaturados, crenças e valores constituem uma visão de mundo. Este artigo identifica as principais barreiras para uma visão de mundo em transição e argumenta que a tendência da visão de mundo de se estabelecer em uma "história única" é muito comum e totalmente em desacordo com as demandas pluralistas do Design de Transição. Crescendo a partir da compreensão do cuidado do produto, exploramos os quadros análogos de "manutenção", "reparo" e "atualização" para ajudar a ativar a transição de visões de mundo. Apoiar designers no desenvolvimento de uma maior agência curatorial sobre o conteúdo e a estrutura de suas visões de mundo estabelecerá um terreno fértil para mudancas e, ao fazê-lo, acelerará a transicão para um futuro sustentável.

Palavras-chave: Visão de mundo - Crenças - Valores - Histórias - Manutenção - Reparo - Atualização - Dissonância Cognitiva - Mudança Sistêmica