Dædalus

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Winter 2025

The Social Science of Caregiving

Alison Gopnik, Margaret Levi & Zachary Ugolnik,
guest editors

with Roz Chast · Ashley J. Thomas
Christina M. Steele · Rebecca R. Saxe
Seth D. Pollak · Megan R. Gunnar
Monica E. Ellwood-Lowe · Gabriel Reyes
Meriah L. DeJoseph · Willem E. Frankenhuis
Maisha T. Winn · Nim Tottenham · Toni Schmader
Katharina Block · Claire M. Growney · Caitlin Zaloom
Laura L. Carstensen · Elizabeth Fetterolf · Andrew Elder
Ranak B. Trivedi · Eric Schwitzgebel · Phil Ford
Jacob G. Foster · J. F. Martel · Brian Christian
Robert H. Frank · Elizabeth Garlow
Anne-Marie Slaughter · Gregg Gonsalves
Amy Kapczynski · Jane Hirshfield

GALLANT AND GOOFUS:

THE DAUGHTER-CARETAKER EDITION

Has forgiven her parents for all the transgressions of her youth, which she now knows were committed out of love.	Is still seething with resentment about crap that happened forty years ago.
Treasures the time spent with her parents, because she knows that soon, they'll be gone.	Mostly, when with her aged parents, wishes she were somewhere else.
Doesn't worry about the money, because if it runs out, she would be *thrilled* to have them come live with her!	The idea of her parents living under her roof makes her want to lie down and take a very, very, very, very, very, very very long nap.

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“The Social Science of Caregiving”
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Alison Gopnik, Margaret Levi & Zachary Ugolnik, Guest Editors
Phyllis S. Bendell, Editor in Chief
Peter Walton, Senior Editor

Inside front cover : © by Roz Chast, 2014. “Gallant and Goofus : The Daughter-Caretaker Edition,” in *Can’t We Talk About Something More Pleasant ? : A Memoir*. Bloomsbury Publishing Inc.

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Dædalus

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The labyrinth designed by Dædalus for King Minos of Crete, on a silver tetradrachma from Cnossos, Crete, c. 350–300 BC (35 mm, Cabinet des Médailles, Bibliothèque Nationale, Paris). "Such was the work, so intricate the place, / That scarce the workman all its turns cou'd trace; / And Dædalus was puzzled how to find / The secret ways of what himself design'd."
–Ovid, *Metamorphoses, Book 8*

Dædalus was founded in 1955 and established as a quarterly in 1958. Its namesake was renowned in ancient Greece as an inventor, scientist, and unriddler of riddles. The journal's emblem, a labyrinth seen from above, symbolizes the aspiration of its founders to "lift each of us above his cell in the labyrinth of learning in order that he may see the entire structure as if from above, where each separate part loses its comfortable separateness."

The American Academy of Arts & Sciences, like its journal, brings together distinguished individuals from every field of human endeavor. It was chartered in 1780 as a forum "to cultivate every art and science which may tend to advance the interest, honour, dignity, and happiness of a free, independent, and virtuous people." Now in its third century, the Academy, with its more than five thousand members, continues to provide intellectual leadership to meet the critical challenges facing our world.

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Introduction: The Social Science of Caregiving

Alison Gopnik, Margaret Levi & Zachary Ugolnik

For most people, most of the time, caring for others, particularly close others – children and parents, wives and husbands – is at once one of the most meaningful, important, and morally compelling things we ever do – and one of the most difficult. With a few exceptions, however, this foundational human capacity has been oddly invisible in the social and human sciences. In this volume of *Dædalus*, "The Social Science of Caregiving," we aim to at least begin to remedy this. We include essays ranging across a wide landscape of the social sciences and sciences, from biology and psychology to philosophy, political science, and policy. The collection derives from an interdisciplinary project of the same name at the Center for Advanced Study in the Behavioral Sciences (CASBS) at Stanford University, co-led by the issue editors in collaboration with Alison Gopnik's lab at the University of California, Berkeley.

Several overarching themes emerge from these essays. First, there is the wide-ranging nature of human care, both in terms of the cared-for and the carers. The canonical biologically grounded case may be care for offspring, but this rapidly extends to care for elders, for the ill, for distant others in a "community of fate," and even care for the dead.[1] A strikingly wide variety of people may be carers with different relationships to the cared-for. Again, the canonical biological example may be mothers, given that relationships of care have a long evolutionary history, particularly in mammals and birds. But these essays emphasize the ways that men and women, as well as a diverse group of paid and unpaid people, are involved in caregiving.[2] Similarly, a remarkably wide range of institutions, with very different histories, roles, and structures, is involved in caregiving. This ranges from more obvious government institutions and policies to religious traditions and institutions, to formal unions, geographical neighborhoods, and historic Black community centers.[3]

We might ask then, what unites this disparate range of relationships and phenomena? What makes them all examples of care? A few themes emerge here as well. One is that care is intrinsically asymmetrical; it depends on the idea that the carer has resources that the cared-for person does not. Second, care has an intrin-

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sically altruistic character: it involves the carer donating resources to the cared-for, regardless of return, and doing so precisely because the cared-for lacks the necessary resources. This is particularly vivid in unpaid care relationships, such as family relationships. But even when care is paid labor, it has this kind of altruistic element. In most cases, the caregiver is paid by someone other than the cared-for person, either another caregiver or an institutional source of care. And psychologically, paid caregivers often feel altruism toward the people they care for, and indeed this is a source of meaning and satisfaction. These features of care make it very different from the kind of standard social and economic transactional relationships, such as those between employers and employees, buyers and sellers, or cooperative partners, that can be characterized in terms of a social contract between two equivalent autonomous agents. They also differentiate care from power relationships, which involve similar asymmetries between those with more resources and those with less, but assume that the consequence of such asymmetries is that the less powerful agent will serve the interests of the more powerful one. These distinctive features of care may indeed have contributed to the neglect of these relationships in standard economic and political accounts.

Other features of care are more variable but nevertheless seem to be important in many cases. Care often seems to involve local attachments, whether these are the classic emotional bonds of attachment theory or more abstract relationships between members of a particular community, such as the Black institutions discussed by Maisha T. Winn and Nim Tottenham in their essay, or even the relationships we have with those who are no longer alive, as Phil Ford, Jacob G. Foster, and J. F. Martel describe in their contribution to this volume.[4] On the other hand, care can also take on a kind of universality in religious or philosophical contexts, as Zachary Ugolnik and Eric Schwitzgebel discuss in their respective essays. Similarly, there are interesting questions about the motivations and objectives of care. In the simplest case, carers might be motivated to increase the objective well-being of the cared-for – what economists would call their objective utilities – for example, by feeding an infant or giving medication to an elder. But in other cases, the carer may be more concerned with the subjective utilities of the cared-for – what the cared-for thinks of as their own best interests rather than what the carer might consider to be best for them. The case of elders makes this contrast vivid: what should a carer do about a parent who is determined to eat meals that are objectively bad for him or to continue living in a house that may no longer be physically safe? A third form of care involves neither type of utility but rather tries to donate resources in a way that confers autonomy on the cared-for. Rather than trying to fulfill particular desires or goals, subjective or objective, the carer may be working to give the cared-for enough resources to fulfill those goals themselves. This sort of care is especially vivid in cases like adolescence or illness. But it may also be involved in, for example, the decisions of a richer community that aims to care for one with fewer resources.

We have organized these essays into roughly three groups: one that focuses on biological and psychological perspectives, another that addresses more abstract philosophical and sociological themes, and a third that is concerned with policy questions. The first set of essays examines the psychological and social underpinnings of care both for children and elders. Ashley J. Thomas, Christina M. Steele, Alison Gopnik, and Rebecca R. Saxe consider how infants themselves understand and identify caregivers, with empirical results that suggest that even surprisingly young infants make inferences about care.[5] Seth Pollak and Megan Gunnar review the substantial literature on the crucial effects of early care and nurturance on later development, an area where there has been extensive empirical work, and discuss its broader implications.[6] Monica E. Ellwood-Lowe, Gabriel Reyes, Meriah L. DeJoseph, and Willem E. Frankenhuis explore the particular issues that arise in low-income families and discuss the ways that different environments might shape caregiving practices, while preserving the basic structure of care.[7] Winn and Tottenham look to Independent Black Institutions (IBIs) established in the late 1960s as sources of insight.[8] They explain how three pillars of Black education across IBIs (Identity, Purpose, and Direction) map onto beneficial practices identified in the psychological and neuroscience literature on care and development, such as exposing children to caregivers beyond simply their parents and teachers by including elders, school employees, and other alloparents. Toni Schmader and Katharina Block consider the question of why people might choose to take on or fail to take on the role of carers, with men as a particularly striking example, showing that paradoxically, cultures with more gender equality may make it more difficult for men to take on such roles.[9]

The essay by Claire M. Growney, Caitlin Zaloom, and Laura L. Carstensen and the one by Elizabeth Fetterolf, Andrew Elder, Margaret Levi, and Ranak B. Trivedi argue for a new model of care for the elderly in which the need for autonomy and usefulness of the cared-for has equal standing with their need for assistance.[10] For Growney, Zaloom, and Carstensen, changes in real estate markets, zoning, and planning are essential to create and sustain age-diverse neighborhoods that enable elders to help in the care of younger people, and the young to aid the old in turn. Fetterolf, Elder, Levi, and Trivedi focus on the necessary, if stressful, negotiations between the person in need of care, their family members, the in-home carers, the health experts, and those who pay the bills. The introduction of technology into these relationships can ease some of the human burdens of care but can also introduce conflicts. The authors document both.

The second set of essays looks at more abstract aspects of care. These essays focus on the interrelated issues concerning the care of others, the divine, the dead, and AI agents.[11] They also explore how these approaches can inform our daily life and offer insights into what we value in human care. Notably, these authors provide different types of care that are meaningful in their particularity and, at once, potentially expandable based upon that foundation of meaning. Schwitzgebel compares the Golden Rule (do unto others as you would do unto yourself) to what he calls extending your "concern for those nearby to more distant people" as different philosophical strategies aimed at generating care more broadly.[12] Ultimately, assuming we care for those already close to us, he argues that extending that concern can be a more effective strategy to guide our actions than starting with our own preferences and projecting those preferences upon others.

Ugolnik addresses the underlying importance of religious practices and institutions upon caregiving.[13] Comparing Buddhist and Christian narratives of care, he argues the divine often cares and is cared for, elevating care to a sacred action. According to these traditions, care is thus a divine activity in which humans participate by engaging in caregiving practices, an experience that extends beyond the giver and receiver of care into a wider network of relationships. Ford, Foster, and Martel examine how we care for the dead, offering a theoretical approach to acknowledging the material and cultural links between the past and the present, highlighting our dynamic relationships with those who are no longer living.[14] Brian Christian looks at our conceptions of artificial agents both as potential carers and reflections of human care.[15] He emphasizes the long history of human thought about relationships to and among these artificial agents, well before such agents actually existed. But, of course, these considerations are particularly salient as AI becomes more sophisticated and plays a more central role in our lives.

Collectively, this philosophical set of essays broadens our understanding of various types, models, and motivations of care and caregiving, whether we are involved in a caregiving relationship with the dead, the divine, or the artificial. The authors also provide substantive insights we can apply when supporting care in our political economy, the focus of the remaining essays.

The third set of essays argues for care as a social and governmental responsibility that comes with costs, yes, but also individual and collective benefits. This means, first, the recognition of the obligations of the members of a society to those beyond their family and friends. Second, it requires attention to the infrastructure of care: the laws, institutions, organizations, and financing to support these obligations. Finally, these essays claim that a caring society is based on a complex network of relationships that includes not only family and friends but also paid caregivers, medical professionals, insurance agents, nonprofit and religious organization personnel, and, inevitably, government bureaucrats.

The essays go beyond the neighborhood community and the home. Their concern is transformation of the contemporary political economy. Robert H. Frank advocates increased public investment, supported by a small change in taxation policy.[16] The effect would reduce wasteful consumption while using those dollars to fund collectively beneficial outcomes for society at large. Elizabeth Garlow and Anne-Marie Slaughter make the case for a worldview of care in which human relationships and connections take precedence over approaches grounded in narrow self-interest.[17] They draw on scientific evidence and current practices to demonstrate the viability and superiority of policies informed by the worldview of care. Gregg Gonsalves and Amy Kapczynski use the history of both the successes and failures of public health to argue for major reform of the infrastructure and public financing necessary for what they call "the social life of care."[18] Its inception, however, will depend on effective social mobilization, a question Levi addresses in her essay.[19] The fact that all of us need care and so many of us provide care forms the basis for generating an expanded and inclusive community of fate. One effect would be the capacity for collective action. Another would be a venue for civil, if heated, debate about the most appropriate policies.

Finally, Jane Hirshfield's poem "O, Responsibility" and Roz Chast's cartoon about the paradoxes of elder care capture the subtle and revelatory insights that only art can provide.[20]

The Social Science of Caregiving is an ambitious project; indeed, it is just the kind of project CASBS at Stanford University thrives on. The workshops and the essays gathered in this issue of *Dædalus* represent small and initial steps toward assembling what we know, what we need to know, and what we need to do. Bringing together multiple disciplines reveals the diversity of forms of care and caregiving across history and place. But it also clarifies what all successful care and caregiving have in common: a commitment to the autonomy and well-being of the cared-for, respect by means of both recognition and appropriate compensation for those providing the care, and the establishment of supportive societal and public institutions.

EDITORS' NOTE

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ABOUT THE AUTHORS

Alison Gopnik, a Member of the American Academy since 2013, is Professor of Psychology at the University of California, Berkeley. She is the author of *Words, Thoughts and Theories* (with Andrew N. Meltzoff, 1996), *The Scientist in the Crib* (with Andrew N. Meltzoff and Patricia K. Kuhl, 1999), *The Philosophical Baby: What Children's Minds Tell Us About Love, Truth and the Meaning of Life* (2009), and *The Gardener and the Carpenter* (2016). She is the author of more than one hundred fifty scholarly journal articles and has also written widely for *The Wall Street Journal*, *The New York Times*, *New Scientist*, and *Slate*, among other popular publications.

Margaret Levi, a Member of the American Academy since 2001, is Professor Emerita of Political Science, Senior Fellow at the Freeman Spogli Institute for International Studies, and Faculty Fellow of the Center for Advanced Study in the Behavioral Sciences at Stanford University. She is also Jere L. Bacharach Professor Emerita of International Studies in the Department of Political Science at the University of Washington. Among her books are *Of Rule and Revenue* (1988), *Consent, Dissent, and Patriotism* (1997), and *In the Interest of Others: Organizations and Social Activism* (with John Ahlquist, 2013).

Zachary Ugolnik is Program Director for the Center for Advanced Study in the Behavioral Sciences at Stanford University. Previously, he served as Assistant Professor at Mount Allison University and a Mellon Interdisciplinary Fellow at Columbia University. His work has appeared in such publications as *Religion & Literature* and *Harvard Divinity Bulletin*.

ENDNOTES

[1] For care related to offspring, see Ashley J. Thomas, Christina M. Steele, Alison Gopnik, and Rebecca R. Saxe, "How Do Infants Experience Caregiving?" *Dædalus* 154 (1) (Winter 2025): 14–35, https://www.amacad.org/daedalus/how-do-infants-experience-caregiving; and Seth D. Pollak and Megan R. Gunnar, "What Developmental Science Has to Say about Caregiving," *Dædalus* 154 (1) (Winter 2025): 36–51, https://www.amacad.org/daedalus/what-developmental-science-has-say-about-caregiving. For care for elders, see Elizabeth Fetterolf, Andrew Elder, Margaret Levi, and Ranak B. Trivedi, "Technology & the Dynamics of Care for Older People," *Dædalus* 154 (1) (Winter 2025): 117–133, https://www.amacad.org/daedalus/technology-dynamics-care-older-people; and Claire M. Growney, Caitlin Zaloom, and Laura L. Carstensen, "The Human Geography of Care," *Dædalus* 154 (1) (Winter 2025): 98–116, https://www.amacad.org/daedalus/human-geography-care. For caring for the ill, see Gregg Gonsalves and Amy Kapczynski, "The Social Life of Care," *Dædalus* 154 (1) (Winter 2025): 224–239, https://www.amacad.org/daedalus/social-life-care. For caring for distant others in a "community of fate," see Margaret Levi, "Expanding the Community of Fate by Expanding the Community of Care," *Dædalus* 154 (1) (Winter 2025): 240–250, https://www.amacad.org/daedalus/expanding-community-fate-expanding-community-care. For caring for the dead, see Phil Ford, Jacob Foster, and J. F. Martel, "Care of the Dead: Ancestors, Traditions & the Life of Cultures," *Dædalus* 154 (1) (Winter 2025): 166–182, https://www.amacad.org/daedalus/care-dead-ancestors-traditions-life-cultures.

[2] Toni Schmader and Katharina Block, "Why Do Women Care More & Men Couldn't Care Less?" *Dædalus* 154 (1) (Winter 2025): 82–97, https://www.amacad.org/daedalus/why-do-women-care-more-men-couldnt-care-less.

[3] For government policies, see Robert H. Frank, "Paying for Expanded Care Provision," *Dædalus* 154 (1) (Winter 2025): 198–205, https://www.amacad.org/daedalus/paying-expanded-care-provision; and Elizabeth Garlow and Anne-Marie Slaughter, "A World-view of Care & a New Economics," *Dædalus* 154 (1) (Winter 2025): 206–223, https://www.amacad.org/daedalus/worldview-care-new-economics. For religious traditions and institutions, see Zachary Ugolnik, "Divine Care: Care as Religious Practice," *Dædalus* 154 (1) (Winter 2025): 150–165, https://www.amacad.org/daedalus/divine-care-care-religious-practice; and Eric Schwitzgebel, "Imagining Yourself in Another's Shoes versus Extending Your Concern: Empirical & Ethical Differences," *Dædalus* 154 (1) (Winter 2025): 134–149, https://www.amacad.org/daedalus/imagining-yourself-anothers-shoes-versus-extending-your-concern-empirical-ethical-differences. For formal unions, see Levi, "Expanding the Community of Fate by Expanding the Community of Care." For geographical neighborhoods, see Growney, Zaloom, and Carstensen, "The Human Geography of Care." For historic Black community centers, see Maisha Winn and Nim Tottenham, "Looking Back to Look Forward: Leveraging Historical Models for Future-Oriented Caregiving," *Dædalus* 154 (1) (Winter 2025): 70–81, https://www.amacad.org/daedalus/looking-back-look-forward-leveraging-historical-models-future-oriented-caregiving.

[4] Winn and Tottenham, "Looking Back to Look Forward."

[5] Thomas, Steele, Gopnik, and Saxe, "How Do Infants Experience Caregiving?"

[6] Pollak and Gunnar, "What Developmental Science Has to Say About Caregiving."

[7] Monica E. Ellwood-Lowe, Gabriel Reyes, Meriah L. DeJoseph, and Willem E. Frankenhuis, "Caring for Children in Lower-SES Contexts: Recognizing Parents' Agency, Adaptivity & Resourcefulness," *Dædalus* 154 (1) (Winter 2025): 52–69, https://www.amacad.org/daedalus/caring-children-lower-ses-contexts-recognizing-parents-agency-adaptivity-resourcefulness.

[8] Winn and Tottenham, "Looking Back to Look Forward."

[9] Schmader and Block, "Why Do Women Care More & Men Couldn't Care Less?"

[10] Growney, Zaloom, and Carstensen, "The Human Geography of Care"; and Fetterolf, Elder, Levi, and Trivedi, "Technology & the Dynamics of Care for Older People."

[11] For care of others, see Schwitzgebel, "Imagining Yourself in Another's Shoes versus Extending Your Concern." For the divine, see Ugolnik, "Divine Care." For care for the dead, see Ford, Foster, and Martel, "Care of the Dead." For care related to AI, see Brian Christian, "Computational Frameworks for Human Care," *Dædalus* 154 (1) (Winter 2025): 183–197, https://www.amacad.org/daedalus/computational-frameworks-human-care.

[12] Schwitzgebel, "Imagining Yourself in Another's Shoes versus Extending Your Concern," 134.

[13] Ugolnik, "Divine Care."

[14] Ford, Foster, and Martel, "Care of the Dead."

[15] Christian, "Computational Frameworks for Human Care."

[16] Frank, "Paying for Expanded Care Provision."

[17] Garlow and Slaughter, "A Worldview of Care & a New Economics."

[18] Gonsalves and Kapczynski, "The Social Life of Care."

[19] Levi, "Expanding the Community of Fate by Expanding the Community of Care."

[20] Jane Hirshfield, "O, Responsibility," *Dædalus* 154 (1) (Winter 2025): 251, https://www.amacad.org/daedalus/o-responsibility.

How Do Infants Experience Caregiving?

Ashley J. Thomas, Christina M. Steele, Alison Gopnik & Rebecca R. Saxe

Almost all of human infants' experience and learning takes place in the context of caregiving relationships. This essay considers how infants understand the care they receive. We begin by outlining plausible features of an "intuitive theory" of care. In this intuitive theory, caregiving has both a distinctive foundational structure and distinctive features that differentiate it from other social relationships. We then review methods and findings from research on infants' understanding of people and social relationships. We propose that even before infants can use language, they may understand caregiving as an abstract intuitive theory with some features in common with how adults think about caregiving. In particular, infants understand care relationships as intimate, altruistic, and asymmetric. We review work that starts to shed light on this proposal, including the findings that infants distinguish between intimate relationships and merely positive ones and that they have asymmetric expectations of responses to distress in intimate relationships between large and small individuals. The proposal that infants can make these inferences has societal and political implications for how we structure caregiving in early life.

We are alive today because we received a tremendous amount of care when we were young. Human infants couldn't survive otherwise. Compared with other species, we are born especially dependent on our caregivers, and our infancy is especially long.[1] However, it is certainly possible to receive care without understanding it. (For almost all human history, we have received oxygen without understanding it.)

What do infants understand about the care that keeps them alive? At one extreme, we can imagine an infant who comes to the world with very little to no knowledge. Like all infants, she would regularly experience aversive states (such as hunger, discomfort, fear, sleepiness). Over time, she may learn to predict that some of her actions (like screaming) and sensory experiences (such as adults' faces or voices or being lifted) are associated with relief. She could even change her behavior to influence what will happen. This would require no understanding of entities (such as "mom" or "me"), causes ("mom responds because she cares"),

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or relationships ("mom is connected to me"). She would simply understand that when she reacts to these aversive states with certain actions (like crying), it predicts that other things will follow (for example, a human face appearing).

At the opposite extreme, we can imagine an infant who understands the caregiving relationship as an adult observer would. An adult would see two entities, both living creatures, with desires, goals, and abilities. The two creatures would appear to be in a stable and enduring intimate relationship with one another. The relationship would appear asymmetric, not egalitarian: one creature is more capable than the other, which is made obvious by their physical attributes, including their larger size. Moreover, the relationship is altruistic: an adult observer would expect the larger creature to use their superior physical abilities to provide for and support the smaller one and may even think it is wrong if the larger creature fails to do so.

It may seem obvious that the experience of infants receiving care would be more like the first description; that the infants' experience of caregiving would be limited, concrete, and sensory. That is, infants would lack the abstract relational interpretations an adult observer uses to understand the interaction. But must infants learn words like "love" or "mom" before they can understand a parent-child relationship? Don't infants need to know culturally specific information, since caregiving varies by culture? In this essay, we argue the opposite: before infants can reliably use language and before they become experts in their culture, they understand caregiving as a specific type of social relationship. We argue that an *intuitive theory of caregiving* would allow infants to distinguish caregiving relationships from other relationships, recognizing that they are asymmetric, altruistic, and intimate.[2] We speculate that this foundational knowledge may be shared across cultures and could act as an inductive bias to support the learning of the many culturally variable ways that kinship and caregiving are organized.[3] Recognizing and understanding caregiving could serve as one way (though certainly not the only way) that infants all over the world learn about their social relationships and those around them. It would support learning about their family, both those who act as caregivers (such as parents, grandparents, older siblings, close friends) and those who do not (such as younger siblings). It would also support learning about who among their caregivers are family and who are not (daycare teachers, nannies, and so on).

What would an adult intuitive theory of caregiving look like? What evidence is there that supports the proposal that our adult intuitive theory is built on infant intuitions about caregiving relationships? And finally, what are some of the intellectual, societal, and political implications of this proposal?

A large and influential literature in cognitive science describes our everyday conceptions of the world as "intuitive theories." Intuitive theories are systems of knowledge that inform our behaviors, explanations, and understandings of varied situations.[4] These theories do not require formal education but instead are the "everyday" ways that people think about things. Examples of intuitive theories include theories of the movement and behavior of physical objects and theories about biology, such as the contrast between plants and animals or life and death.[5] We use these theories to understand other people. "Intuitive psychology," also known as "theory of mind," allows us to understand the actions of others in terms of their beliefs, desires, and intentions. "Intuitive sociology" allows us to make sense of social relationships between individuals (for example, friend or foe, family or friend, leader or subordinate).[6] Elements of these theories seem to be in place even in infants who are less than six months old, and they provide the foundation for a substantial amount of learning that occurs in early childhood.

We argue that our everyday ideas about caregiving can also be characterized within a larger intuitive theory. An intuitive theory of caregiving would characterize its structure and distinguish caregiving relationships from other social relationships, such as reciprocal relationships or dominance relationships.[7]

Relationship types can be distinguished by how the people in them coordinate their different goals, capabilities, and resources.[8] In reciprocal relationships, A and B can trade off their varying capabilities and resources to accomplish their goals, creating a positive sum game (one that is mutually beneficial). In dominance relationships, there are asymmetries between A and B, and the fact that A has more resources and capabilities than B leads B to subordinate their goals to those of A. In solidarity or communal sharing relationships, A and B function as a single unit through which individuals pool resources and capabilities to achieve collective goals.

We propose that caregiving relationships have a distinctive intuitive structure. The caregiving relationship is not reciprocal or communal. As in dominance relationships, one person is more capable and/or has more resources than the other, but this very asymmetry leads the caregiver to invest time, capacity, and resources into the target of care. The goal in caregiving is not to pool individual capabilities but often to increase the capabilities of the cared-for.

Many social relationships have expectations of reciprocation or "tit-for-tat": I do something for you because I expect you to do something similar for me in return. In relationships between friends or equals, favors are matched by similar favors, and gifts are matched by similarly valued gifts over time. A friend who never takes a turn preparing a meal, or suggesting an activity, or sharing a confidence will eventually erode the friendship. Caregiving, in contrast, does not demand direct reciprocity. A parent may provide meals, suggest activities, and listen to confidences of their child for decades, with no expectation that their child will do the same in return.

A basic distinction between reciprocal relationships and caregiving is that the caregiver has capacities or resources that the cared-for person does not. This asymmetry makes caregiving similar to dominance relationships, in which individuals differ in power and control of resources.[9] But the consequences of asymmetry in caregiving are the opposite. A caregiver uses their capabilities and resources to accomplish goals that the caregiver believes are in the best interest of the other. This formulation applies to caregiving very broadly: from parents, adult children, and friends to professional childcare and eldercare workers, teachers, and therapists. In all these cases, the lack of resources becomes the very motivation for the more capable person to spend energy or resources to advance the goals and interests of the other. Often, caregiving is necessary because the cared-for person either cannot achieve their goals and fulfill their interests for themself or does not know what is best for them.[10]

In other cases, however, caregiving requires prioritizing a meta goal of enabling the other person to (learn to) exert autonomy. For example, in caring for elderly parents, or for mentees or friends, the caregiver may decide to try to help the cared-for person achieve their goals, even if the caregiver does not believe those goals are in the cared-for person's best interest objectively. For adolescents or students, caregiving may consist of providing the other person with resources that will enable them to be more autonomous and to formulate and achieve new goals of their own. The tensions in these different conceptions of care may play out for caregivers even when they are looking after infants (for example, in decisions about letting babies "cry themselves to sleep"). An important empirical question is how these tensions play out in intuitive theories of caregiving across contexts and cultures.

Caregiving is characteristically local, involving shorter interpersonal distances than other types of relationships. For example, prototypical acts of caregiving involve direct contact with the other's body, such as providing food, physical support, and hygiene. These acts can require substantial physical intimacy. Also, caregiving often occurs between people who are in close biological or legal relationships. In times of need like infancy, old age, and ill health, it is most often parents, siblings, adult children, and spouses who engage in sustained caregiving. Nevertheless, caregiving can extend far beyond biological kinship. And in acts analogous to physical caregiving, people provide mental or emotional support to family, friends, students, patients, colleagues, and neighbors. At least since people have been writing to one another, this type of emotional support can happen over long distances.

These diverse features of caregiving plausibly arise from a coherent intuitive sociology of relationships. Instead of just accumulating beliefs about types of people and groups (for instance, that they are generous or competitive), adults organize their observations of the social world in terms of unobserved but causally central concepts of relationships.[11] Using these latent concepts as hypotheses, adults can fluently recognize distinct types of relationships from limited observations, infer features of those relationships that go well beyond those observations, and form predictions for the participants' future behaviors in new situations.[12]

This informal set of intuitions about caregiving could be formalized as a computational cognitive model. For example, existing computational models qualitatively and quantitatively match people's inferences about the beliefs and desires that explain others' goal-directed actions.[13] The key idea is that human observers treat others' actions as approximately rational. Given prior beliefs about a person's possible goals and beliefs, and observation of that person's possible actions, observers can use Bayesian inference to update estimates of the person's desires. These models can also accommodate situations in which observers see that a person is acting to achieve another person's desires. These inferences compose a possible foundation for representing relationships. Alternative hypotheses about the representation of caregiving could be expressed in terms of alternative structures in the latent space of these models. For example, is pursuing the goals of another agent sufficient to imply caregiving? Or must there be evidence of asymmetry and a distinction between intimacy and affiliation? An advantage of computational models is that they require scientists to make their hypotheses, and their alternatives, fully explicit. Efforts toward such a formal model are underway.

The key question for this essay, however, concerns the developmental origins of these adult intuitions. What evidence is there that the adult intuitive theory of caregiving has its origins in infancy?

One may wonder how we could find support for a proposal about the minds of infants, who cannot yet speak or reliably respond to language. To overcome this challenge, researchers have developed methods that measure infants' nonverbal behavior: what they look at or the way they act. Researchers measure where and how long infants look at events, scenes, objects, or individuals (including people, animated characters, puppets).[14] These methods reveal systematic patterns both in how long infants look at events (for example, infants look reliably longer at physically impossible scenes than at probable ones), and where infants look (for example, infants look at face-like patterns more than other patterns). Using these methods, researchers have discovered that from an early age, infants know more about the world than has often been imagined. This knowledge guides their attention and helps them make sense of the vast amounts of information they receive through perception. For example, infants recognize and understand basic physics (that an unsupported object will fall), discriminate quantities (for example, infants can distinguish between 1 and 3), and recognize "agents" (people, animated characters, puppets) as beings who have self-generated motion.[15]

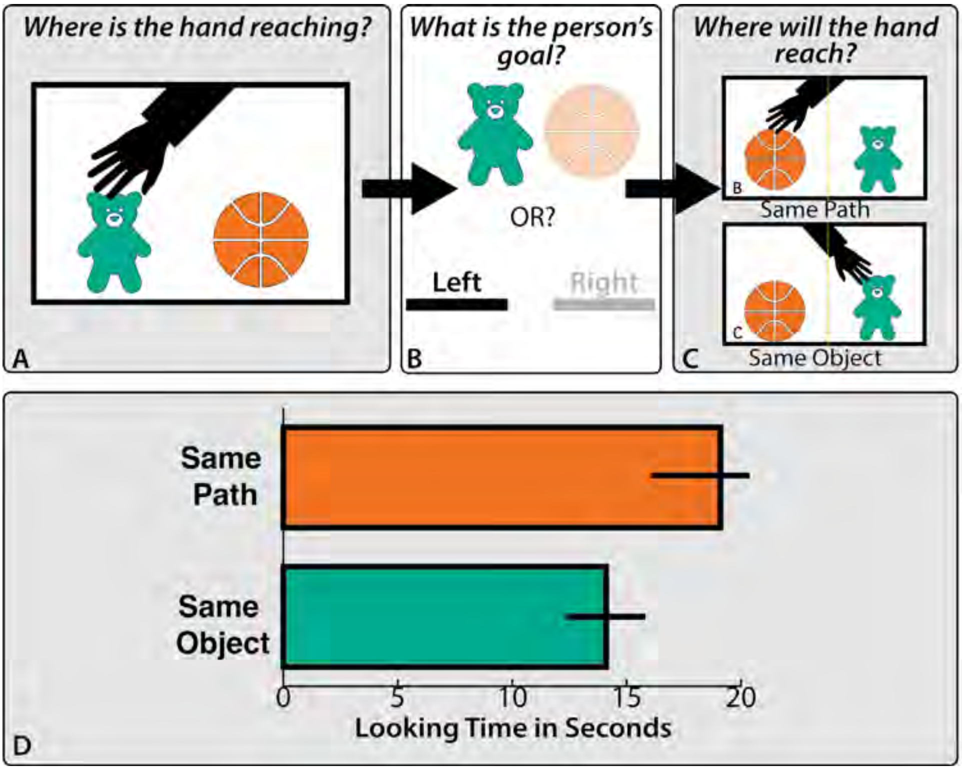
Most relevant to our purposes are studies that use these methods to investigate how infants think about the minds of others. Since minds cannot be directly observed, the key question is whether and when infants understand that people's actions in their environments reveal aspects of their mental states, such as goals or preferences. We will use one example from this body of work to give a more concrete illustration of how such experiments work: when do infants interpret someone reaching for an object as evidence of the person's goals?

In a classic experiment to address this question, infants see a person reach toward one of two objects on a stage: for example, an infant might see a person reach for a ball on the right while rejecting a toy bear on the left (refer to Figure 1).[16] This whole sequence repeats six to fourteen times until the infant begins to lose interest. Next, after obscuring the objects, the curtains rise to reveal that the objects have switched locations: now the ball is on the left and the bear is on the right. This is the critical test trial. The person reaches either for the same object, the ball, in its new location on the left; or the person makes the same hand movement to the right and ends up grasping the bear. Researchers measure how long infants look at each of these new sequences. In general, infants look longer at events that surprise them. So, which is more surprising: the new movement to the old object, or the old movement to the new object? Globally, in terms of the patterns of shapes and colors moving on the stage, the new movement to the old object makes a bigger visual change. On the other hand, adults see the movements as evidence of a goal: it is less important which direction the person moves their hand, and more important which object they grasp. That is, adults see a person who wants a ball, not a bear. By five months of age, infants seem to agree. They look longer (are more surprised) when the person reaches to the right and grasps the bear than when the person reaches to the left and grasps the ball.

This classic experiment, and many dozens like it, have far-reaching implications. Like adults, young preverbal infants understand people's movements as goal-driven actions whose ends are generally more salient than the means. Infants do not need to be familiar with the person, or objects, to make these inferences: the experiments show infants an unfamiliar stranger reaching for a particular toy the infant has not seen before. Infants can also understand goal-directed actions that they could not produce themselves. In one series of experiments, a small round cartoon character pursues its goals by jumping over a barrier three times taller than itself.[17] The eight-month-old infants cannot jump at all, let alone leap over a barrier the size of a semitruck, but they recognize that the jump is an efficient goal-directed action and expect the cartoon character to stop jumping when the barrier is removed.

Infants not only observe the surface features of events, like movement and shape, but also understand those events in terms of invisible causes like goals. Infants also recognize that the goal is specific to the person. Infants are only surprised if the same person switches from reaching for the ball to reaching for the bear; if a new person reaches for the bear, infants are not surprised.[18] Further, in-

Figure 1
Infant Expectations about Reaching Behavior



Schematic of stimuli used in the classic infant studies described above: A) First infants see the familiarization events, in which a hand repeatedly reaches for an object. Across these events, the object appears in the same location, so the hand takes the same path. B) Starting at five months, infants interpret the reaching as object-directed. Earlier, they are open-minded about whether the goal is the location or the object. This allows them to make predictions about future events. C) The critical test comes when infants see one of two scenes: the hand takes the same path, reaching toward the same location, or the hand takes a different path and reaches for the same object. D) Infants look longer at the same-path scene, suggesting they find this unexpected. Source: Example dataset recreated using means and standard deviations reported in Amanda L. Woodward, "Infants Selectively Encode the Goal Object of an Actor's Reach," *Cognition* 69 (1) (1998): 1–34. Figure by the authors.

fants do not seem to make these predictions when an inanimate object, like a machine claw, displays the same pattern of movements as a human hand. To make these inferences, infants must have a basic idea that the person's goals are stable. More generally, infants clearly distinguish between events caused by people or goal-directed agents and visually similar events that reflect random or physical causes. While people's movements reflect their own goals, inanimate objects' movements reveal what caused them.[19]

So far, we have discussed work establishing that infants interpret some actions as evidence of an individual's goals. But infants go beyond tracking individuals; they also seem to recognize and understand social interactions between two or more individuals. Infants recognize positive or friendly social interactions and competitive or antagonistic social interactions.[20] Infants make guesses that two characters "go together" if they speak the same language, synchronize their actions, refer to themselves with the same label, help one another, or imitate one another.[21] Infants also infer that groups of three characters go together if they make movements that look like a synchronized "dance."[22]

Infants also have specific expectations about how individuals will interact in the future based on their past social interactions. For example, infants expect that if one character imitates another, they will also be likely to help them. In one of these studies, eight- and nine-month-old infants observe three animated characters: a red sphere, a yellow cone, and a blue cylinder.[23] In the first scene, the red character looks toward the yellow cone and jumps up and down. The yellow cone imitates the red character by jumping up and down. Next, the red character looks toward the blue cylinder and makes the same movement. This time, the blue cylinder makes a different movement in response and spins around. Infants see these scenes repeated six times, played on a loop until they lose interest. Afterward, infants watch the red character move through a narrow pathway that is partially blocked by a barrier. In the critical test trial, one of the two partners from before, either the yellow cone or the blue cylinder, helps the red character by pushing the barrier out of the way. The eight- to nine-month-old infants seem to expect the imitator (yellow cone) to help: they look longer at the scene where the non-imitator (blue cylinder) cleared the path than at the scene where the imitator did. These results agree with many other studies in which infants expect positive social interactions after they observe imitation.[24] They are also consistent with a large literature showing that infants themselves imitate in sophisticated ways from a very early age and that they actively use imitation as a cue to social relationships.[25] These findings also suggest that infants already have some expectations that agents who are in a social relationship, as evidenced by mutual imitation, are likely to help each other.

There is also evidence that infants recognize asymmetries in power, particularly in the context of size differences. Infants who see two agents of different sizes assume that the larger character will dominate over the smaller one when their goals conflict. They make similar inferences in other contexts, expecting agents with more allies to prevail and agents who have won in the past to do so again.[26] Recent work from our lab has looked at whether sharing saliva through activities such as kissing or food sharing leads infants to infer intimate relationships.[27] For adults, such actions seem to be a strong indication of particularly close relationships. Those interactions are also especially likely to take place between infants and their caregivers.

In sum, infants pay attention to social interactions. By observing who interacts, infants figure out who goes together. They also have expectations about how pairs or groups of people will interact based on how they have interacted in the past.[28] But what are the implications of these studies for the question of whether and how infants understand caregiving?

It is unlikely that an infant's experience of caregiving is only sensory. Based on the studies we have described above, some of the elements of an intuitive theory of caregiving are in place. For example, the infant likely recognizes that the actions of caregivers and the cared-for are goal-directed. They also recognize that some relationships between people are closer or more intimate than others, particularly those involving touch or saliva sharing. And infants recognize simple power asymmetries, at least as evidenced by differences in physical size. These capacities are part of the foundation infants need to understand caregiving, but on their own they do not establish that infants do so in the way we propose. Specifically, they do not show that infants weave together the features of intimacy, asymmetry, and altruism in the way our characterization of the intuitive theory proposes.

To support this proposal, we need evidence for three additional claims. First, infants distinguish intimate relationships from other positive relationships (because caregiving is a distinctively intimate relationship). Second, infants recognize that caregiving is both asymmetric and altruistic; it is a relationship between "unequals" in which a more capable individual supports a less capable one. Third, infants place themselves in a network of social relationships. We have begun to test each of these claims in our ongoing studies.

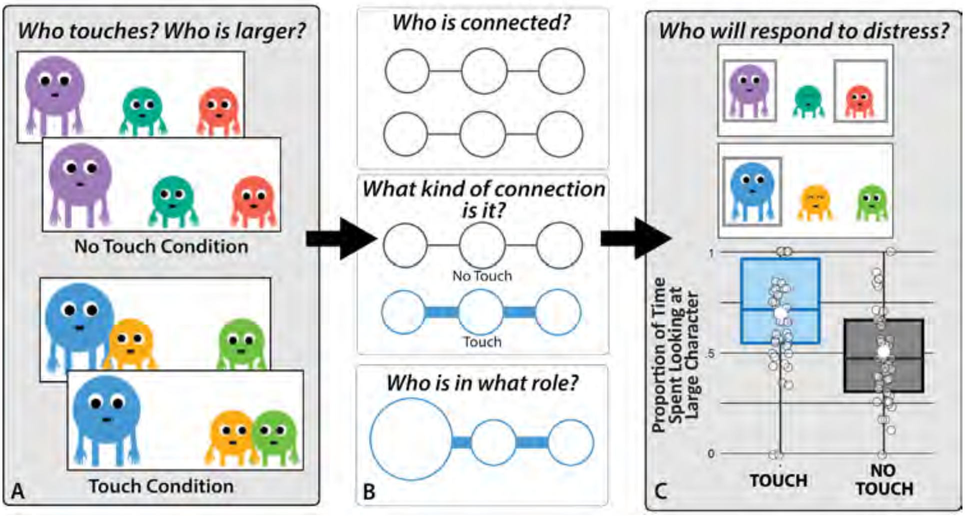
The first two sets of studies investigate whether infants distinguish intimate relationships from merely positive ones. We build off our prior work showing that infants treat touch and saliva-sharing as signs of intimacy.[29] We also build off prior work showing that infants expect others to provide comfort in particular contexts. For example, in one study, infants expected that an adult would approach a crying baby instead of a pile of laundry.[30] This expectation arose selectively when the baby cried and needed comfort. Infants did not expect that the adult would approach a laughing baby instead of the laundry. Another set of studies found the same pattern when the interacting entities were depicted by animated big and small ovals. When the little oval made a crying noise, infants with a secure attachment to their parent and those with more responsive parents were surprised if the big oval failed to approach the little oval.[31] Together, these studies show that infants expect comforting to occur, at least in some contexts.

In two sets of studies, we have also investigated under which conditions infants expect comforting to occur. In the first set, we asked whether infants expected specific individuals to provide comfort based on cues of social intimacy.[32] Infants, aged eight to ten months saw two scenes. In one of the scenes, an actress and puppet had an intimate interaction: they ate from the same orange slice and thus potentially exchanged saliva. In the other scene, the same puppet had a positive but not intimate interaction with a different actress: they passed a ball back and forth. Next, the puppet was shown flanked by the women from the previous scenes. The puppet began to cry. In preliminary findings, infants have looked first toward the woman who had shared the orange with the puppet, as though they anticipated that she would respond to the puppet's distress. But why did infants think that the intimate partner would respond? A core component of intimate relationships is that we direct intimate actions toward specific people. Infants seemed to agree. When the original puppet was replaced by a new puppet who had not been in the initial interactions, infants no longer expected the partner who had previously performed an intimate action to respond. These studies suggest that infants recognize intimate social relationships.

In the second set of studies, we investigated whether infants recognize that caregiving is an asymmetric relationship in which one agent has more power or resources than another.[33] In each of the studies described above, the character who is in distress is smaller than the characters who do or could provide comfort. However, it is unclear if these size differences led infants to expect comforting, and what other contextual clues might be necessary. We hypothesized that infants should selectively use size when they also have cues of intimacy. In these studies, we depicted intimacy with social touch.[34] We showed infants a small character who had the same interaction with both a larger and similarly small character (see Figure 2). In the intimate scene, a small yellow character touches and dances with a large blue character and a small green character. Which character would infants expect to respond to the yellow character's distress? We found that infants looked first and longer at the large character, suggesting they anticipated that the large character would respond. Next, we showed infants the same scenes, but this time the characters danced without touching. The result was that infants no longer expected the large character to respond.

This finding suggests that within intimate relationships, infants expect comforting behavior between large and small characters. For infants, physical size also predicts a person's role in a caregiving relationship: the more capable (that is, larger) person will provide care for the less capable (smaller) individual, but not usually the other way around. To test whether infants understand caregiving relationships this way, we showed infants the same scenes as in the previous study, but this time the central character was large. We have found that infants do not expect either the smaller or similarly large character to respond to the large charac-

Figure 2
Infant Understanding of Caregiving via Touch and their Expectations of Responses to Distress



In the experiment, infants see animated scenes in which the central character either "dances" with and touches the two outer characters or dances with but does not touch the outer characters. We hypothesize that infants use these interactions to make inferences about who is connected and whether the connection is intimate (in the touching interaction) or positive but not intimate (in the no-touch interaction). We further hypothesize that infants then use size to understand who is in what role. Source: For data and further context, see Christina M. Steele, Megan K. Richardson, Azwayla F. Taylor, et al., "Early Threads of Connection: Probing Infants' Early Understandings of Caregiving Relationships," *Proceedings of the Annual Meeting of the Cognitive Science Society* 46 (2024). Figure by the authors.

ter's distress. This suggests infants don't have consistent expectations about who will respond to a large character's distress.[35]

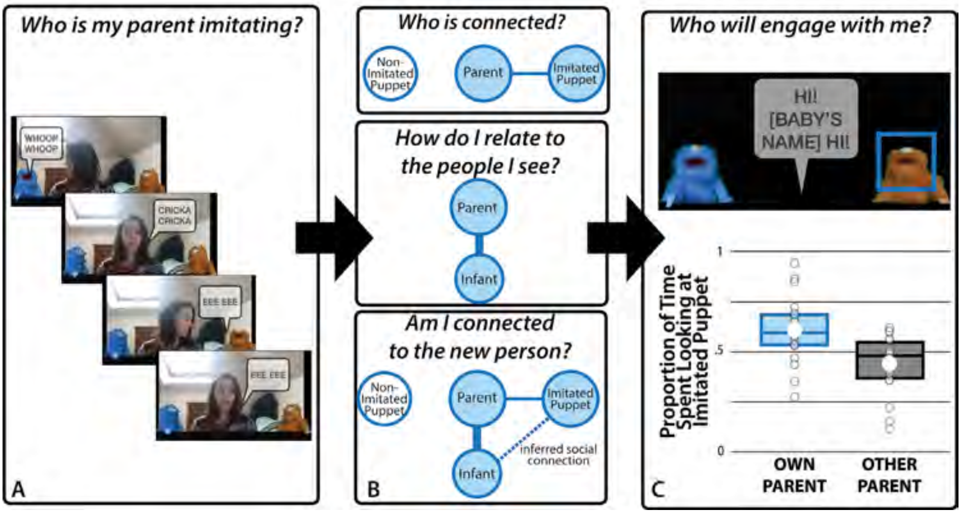
An important feature of the intuitive theory we propose is that it applies both to the infant's own caregiving relationships and to the relationships the infant observes. As a result, infants with something like the "adult theory" should be able to place themselves within a network of relationships that they learn from observation. To investigate this claim, we built off previous findings in which fifteen-month-old infants used triadic closure to make sense of social interactions. For example, infants expect two large characters to go together if they respond to the same small crying character.[36] We investigated whether infants use similar logic when reasoning about their own relationships. These studies build on the work on imitation described above and work showing that infants recognize their own parents.[37] In our study, infants saw scenes in which one of their parents vocally imitated one of two puppets (see Figure 3).[38] After they were shown this scene six times, they saw a test trial that took advantage of the infants' ability to match visual and audio stimuli.[39] In this test trial, they saw the two puppets from the interaction with their parent. Both puppets moved their mouths, but only one voice called to them by saying, "Hi [baby's name]! Hi!" To determine where infants thought the voice was coming from, we measured which puppet infants looked at longer. During these scenes, infants spent more time looking at the puppet whom their parent had imitated, suggesting they thought that the imitated puppet was the source of the voice. This pattern of looking did not reflect a general interest in the imitated puppet: infants did not spend more time looking at the puppet when the puppets appeared to be calling to a different person, looking off-screen and calling a different baby's name. But did it matter that it was their parent who had the initial interaction, or would they learn this information from any adult they observed? To answer this question, every infant also saw similar scenes featuring another infant's parent interacting with two new puppets. In the test trial, infants had no expectations about which puppet would call to them: they looked equally long at the imitated puppet and the puppet who had not been imitated by the unfamiliar adult. This set of studies suggests that infants pay attention to the ways that their parents interact with new individuals to learn about whether those individuals are in their social networks.

We propose that infants have the cognitive foundations required to understand caregiving relationships, including their own and those they observe. This proposal is based on experimental studies of infants' patterns of looking at simple events. Based on these studies, we suggest that infants learn and remember: 1) who shares saliva with, touches, and holds and comforts the infant; 2) who else these caregivers share saliva with, touch, and hold and comfort; and 3) who shares saliva with, touches, and holds and comforts their caregivers. Connecting these observations into a network, infants could form the nucleus of a representation of their own family.

The ability to recognize family based on intimate social relationships could be powerful. For example, infants could use these interactions to recognize important family members, even if they are not often physically present. Grandparents or aunts and uncles who live far away, or parents who travel, such as those in the military, could still be identified as core members of the infants' family network based on the pattern of intimate interactions that infants observe and experience when those people are present.

Reciprocally, the absence of intimate interactions may help infants to identify caregivers who are not part of their family and to form different expectations for

Figure 3
Infant Perception and Interpretation of Parents' Social Interactions with New Individuals



A) Infants see videos of their parents interacting with puppets. In the scene, the puppets vocalized distinct nonsense syllables (for instance, "eee eee" or "whoop whoop"). Then, the parent imitates one of the puppets but not the other. B) We propose that infants parse this scene by inferring who is connected by observing the imitation, recognizing their social relationship with their parent, and inferring that they have a social connection to the imitated puppet. They use this knowledge to predict who will socially engage with them. C) (top) We measure which puppet infants spend more time looking at during a test event in which both puppets move their mouths but only one voice calls to the infant. (bottom) Graph showing data from one study: larger white dots are means, lines are medians, and gray-outline dots are individual babies' data. Infants spent more time looking at the puppet who was imitated only after seeing their own parent interacting with the puppets. Source: For data and more context, see Ashley J. Thomas, Rebecca Saxe, and Elizabeth S. Spelke, "Infants Infer Potential Social Partners by Observing the Interactions of Their Parent with Unknown Others," *Proceedings of the National Academy of Sciences* 119 (32) (2022): e2121390119. Figure by the authors.

future interactions. Paid caregivers, like nannies and daycare teachers, tend to be present very regularly for a period of infants' lives but perform fewer intimate actions, such as kissing or sharing food, with the infant (and especially with her parents).[40] If infants discriminate between intimate and nonintimate caregivers, this distinction could help infants accept the temporary and transient presence of paid caregivers. These are speculations that could be directly tested using the methods we describe here, as well as more ecologically valid methods that measure what types of interactions infants tend to observe in their everyday lives.

The studies as formulated also do not address the origins of these understandings. Biologically, care is particularly crucial for infants. Moreover, human infants have a particularly wide range of caregivers, including "alloparents" who are not necessarily biologically related.[41] Thus, infants may be especially sensitive to potential alloparents, and actively behave in ways that recruit care.[42] Innate elements of an intuitive theory of caregiving then might be especially evolutionarily adaptive for human infants.

Alternatively, or in addition, infants' ecological niche means that experiences of caregiving are frequent and pervasive, indeed, infants couldn't survive otherwise. Thus, an early understanding of caregiving might be the result of applying basic inductive learning mechanisms to these experiences. In particular, we don't know to what extent these abstract understandings of caregiving are the result of infants' own caregiving experiences. The large literature on early attachment suggests that infants' general understanding of caregiving, their "internal working model," may be influenced by their own experiences of caregiving. Notably, in prior work, the securely attached infants made different predictions about the character's response to stress than did infants with insecure attachments.[43]

Similarly, a major limitation to the interpretation of these findings is that the infants in these studies predominantly come from one cultural context: almost all the work we described tested U.S.-American, Canadian, or European infants. The infants in these studies had months of experience with their culture and with their caregivers. Therefore, these findings may not be universal. We propose that the early emerging representations are learning mechanisms: they allow infants to organize the information they perceive in their environment. Cultural practices – such as the ways that intimate relationships and caregiving relationships are substantiated – may influence what type of information is available as inputs to these learning mechanisms. For example, in some environments, older siblings or other children are more likely to be caregivers for infants and toddlers. In other environments, saliva sharing is very widespread beyond the family.[44] Such environmental variation leaves open questions about how variable infants' expectations may be, even at these young ages.

For example, if infants are constructing or revising an intuitive model of caregiving, we might expect that differences in their experience of caregiving would shape their intuitive theories in different ways. Moreover, since theories are high-level cognitive structures that inform and shape more specific inferences and predictions, those differences in theories could have wide-ranging effects on infants' later beliefs and behaviors. This is congruent with the picture of "internal working models," which are like intuitive theories, in attachment theory. The idea is that the different varieties of attachment behavior – secure versus avoidant versus insecure – reflect differences in infants' conceptions of caregiving, which may generalize from their personal caregivers. At least one set of studies suggests that this may be true: infants with different kinds of attachment relationships made different predictions about how a large, animated character would react to the distress of a small, animated character.[45] In this way, early intuitive theories might play an important role in the surprisingly strong and long-lasting effects of early experiences on later life. At the same time, the revisability of intuitive theories might provide an important mechanism for resilience and recovery. The general nature of theories is that they shape more specific inferences and predictions and may initially resist counterevidence, but counterevidence can eventually lead to theory revision.

These findings also raise questions about how these early emerging concepts relate to adult concepts of caregiving. In other domains, early learning mechanisms persist throughout adulthood. Sometimes, initial intuitions make learning new concepts more difficult. For example, children learn that "the earth is round," but interpret it in the wrong way: many children imagine that the earth is round like a pancake, while others imagine a snow globe with a flat surface and a domed sky. The learning mechanisms that allow all humans to navigate on flat surfaces or make predictions in relation to the laws of gravity make it difficult to understand that the earth is a sphere floating in space, even when people explicitly teach this to them.[46] Are there ways that early intuitions about caregiving might interfere with, shape, or support later learning? Moreover, like our early conceptions of the earth, are our initial intuitions about care overwritten in light of new evidence?

One question is how the intimate character of early-caregiving intuitions is related to broader intuitions of the sort that would be characterized by our abstract model. As adults, we can conceive of care for a wide range of others, including, for example, care for the natural world or care for past or future generations, even though we are unlikely to share saliva or dance with them; and we can conceive of care as involving abstract institutions and groups.[47] Nevertheless, our general intuitions – such as the fact that we are more obliged to care for close others, or that those with more resources have an obligation to care for those who have less – may be rooted in these more specific early conceptions.

Caregiving relationships are interwoven into the fabric of human life – we cannot survive as infants without them, and they persist throughout the lifespan. As infants, we receive care from a variety of adults. As we get older, we may care for infants, children, pets, aging parents, grieving friends, or ailing spouses. For many people, including nurses, nannies, teachers, and others, caregiving is a profession. For some people, caregiving relationships involve land, other species, deceased people, or even future generations.[48] We propose that understanding caregiving relationships in terms of an intuitive theory that specifies that care is intimate, altruistic, and asymmetric may shape how people conceive of at least part of the interconnected world into which we are born.

ABOUT THE AUTHORS

Ashley J. Thomas is Assistant Professor in the Department of Psychology at Harvard University. She studies how humans understand social relationships by investigating this knowledge in infants and children. She has received a National Research Service Award Fellowship and been a postdoctoral fellow with the Center for Research on Equitable and Open Scholarship.

Christina M. Steele is a doctoral student in the Department of Psychology at Harvard University and member of the Thomas Lab at the Harvard Laboratory for Developmental Studies. She conducts research on how children's and infants' perceptions of social groups influence their expectations about close social relationships. She has been awarded a Marshall Fellowship and Beinecke Fellowship.

Alison Gopnik, a Member of the American Academy since 2013, is Professor of Psychology at the University of California, Berkeley. She is the author of *Words, Thoughts and Theories* (with Andrew N. Meltzoff, 1996), *The Scientist in the Crib* (with Andrew N. Meltzoff and Patricia K. Kuhl, 1999), *The Philosophical Baby: What Children's Minds Tell Us About Love, Truth and the Meaning of Life* (2009), and *The Gardener and the Carpenter* (2016). She is the author of more than one hundred fifty scholarly journal articles and has also written widely for *The Wall Street Journal*, *The New York Times*, *New Scientist*, and *Slate*, among other popular publications.

Rebecca R. Saxe, a Member of the American Academy since 2022, is Associate Dean of the School of Science and the John W. Jarve Professor in Brain and Cognitive Sciences at Massachusetts Institute of Technology, and an Associate Investigator at the McGovern Institute. She studies the development and neural basis of human cognition, focusing on social cognition. Saxe has received the Troland Award from the National Academy of Sciences, a Guggenheim fellowship, and the MIT Committed to Caring Award for graduate mentorship.

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What Developmental Science Has to Say About Caregiving

Seth D. Pollak & Megan R. Gunnar

There are numerous popular books, magazines, blogs, and websites that provide advice or anecdotes about how best to care for children. These sources of information can drown out conclusions based on scientific consensus, negatively influencing the behavior of parents and other caregivers and impacting societal action and policies implemented to support children and families. Scientific research in child development, psychology, and neuroscience provides valuable insights into key aspects of caring for children that not only can enhance the likelihood of positive outcomes for children but can also empower parents, childcare providers, and communities with the knowledge and confidence needed to make informed decisions about their children's upbringing. These data can also inform public policies that can increase access and reduce barriers to quality environments for all children. Here, we highlight reliable findings about biobehavioral development that can bear upon policies and practices for supporting healthy child development.

There are many research findings that bear upon the caregiving of infants and young children. Highlighting data that have been highly consistent, replicable, and reliable, we have organized these scientific findings in terms of three general themes: the importance of the timing in which children are exposed to certain experiences, the critical role of predictability and consistency in children's lives, and the significance of social support and children's perceptions of safety. Common across these themes is the important recognition that even infants and very young children are powerful learners, and that what they experience is a central aspect of human brain growth and organization. In addition, we present conclusions that appear to be consistent across cultures, nationalities, and demographic subgroups. There are many factors that affect child development; our aim is to present research that addresses issues that are relevant to the decisions of individual caregivers, rather than broader structural issues, such as public policies surrounding health care, nutrition, and education, that require societal or political change. Of note, these empirically based ideas can and should inform public policies to increase the quality of environments in which children develop. We will note when broader structural issues impede the capac-

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ity of caregivers to create the type of environments developmental science has found to be optimal for young children.

Before discussing what developmental science tells us about how to structure caregiving in the service of healthy brain development, we must note that culture and societal norms influence caregiving and thus the timing and pattern of young children's experiences. Cultures can differ markedly in how the caregiving of young children is done. In some cultures, children are breastfed for much longer than in others. Some cultures encourage infants to crawl and explore their environment as early as possible, whereas in others it is viewed as unhealthy to have infants on the floor or ground. Some cultures prioritize adult one-on-one interactions with infants and young children, whereas in other cultures children learn by spending a good deal of time observing adults interacting with one another and going about their everyday chores. Regrettably, the vast majority of research on children's experiences and their brain development has been conducted in upper-income countries with children whose parents have generally received many years of formal education. There is a growing literature, however, on children in low- and middle-income countries in families with less education, which is beginning to complement and enrich understanding of critical experiences for healthy development. There is also an emerging literature on how seemingly adverse early environments may lead to the development of "hidden talents" or adaptations that allow individuals to thrive under less-than-optimal circumstances.[1] The hidden-talent literature is still in a nascent state, with more work needed before any potential scientific consensus on the nature of these talents and the conditions that support their development. Thus, while we lay out the evidence about caregiving that scientists have accumulated, we also recognize that there is a tremendous wealth of knowledge to be gained from studies that are more inclusive about the variety and range of caregiving practices around the world. Culture not only influences how parents and children behave but also what scientists will choose to notice about parent-child interactions.

One set of questions about caregiving involves the best times to introduce children to different types of experiences. Developmental timing refers to two sides of the same coin. On one side are time spans when a child is exceptionally receptive to and ready for certain types of environmental experiences. On the other side are times when either children are not ready for experiences and may be overwhelmed or unresponsive to those inputs, or the experiences occur too late, slowing the emergence of other skills needed for optimal development. Caregivers make decisions about when to expose children to new foods, people, activities, additional languages, opportunities to build motor skills, emotional and interpersonal situations, media, independence, information about the world, germs, and other potential risks and opportunities. In making these decisions, caregiving entails making an assessment about the extent to which a child is ready to absorb and integrate pertinent skills, and whether a new experience is appropriate for a child's developmental phases.

Sometimes these matches and mismatches seem obvious and easy to tie to a child's chronological age. It would be foolish to give solid food to a newborn or expect a three-year-old to stay safe alone without supervision. In other situations, there are guidelines that operate consistently across individuals, though caregivers may not be aware of the science informing the issue. For example, adults often try to keep newborn infants clean, with at least lay recognition that the immune system at birth is just starting out and newborns are vulnerable to illness. But perhaps less obvious is that the immune system is a learning system and needs stimulation in order to optimally develop. New research is showing that the immune system benefits from exposure to biodiversity found in the natural environment of soil and plants and animals.[2] So it actually is helpful to immune health for young children to be exposed to pets in their home and allowed to indulge in one of their favorite pastimes – playing in the mud!

Bilingualism is another example. How best to treat children growing up in homes where they do not speak the language of the majority? Will they learn better if we teach them only in the dominant culture language? And what about families in which two languages are spoken? Will language development be hampered by being exposed to two languages early in development?

There is a tremendous amount of misinformation about the benefits and timing of exposing children to multiple languages in their everyday lives. Other than the cases of neurological disorders, exposing infants to multiple languages at the same time does not confuse them (even when the same caregivers switch frequently between using different languages). Even when children mix words from different languages, this is a normal part of language development. Indeed, very young multilingual children match their monolingual peers in conversational abilities and language-learning abilities.[3] But the main point is that the science is completely clear about bilingual language exposure: earlier is better and more language as early as possible is the best. This is a function of both biology and social experience. Human brains are more receptive to language learning earlier in life, and in many cultures, adults speak and interact with infants and young children in ways that make language learning easier and engaging. The earlier a child is exposed to multiple languages, the more likely the child is to attain fluency, have a richer vocabulary, use standard grammar, speak and understand the languages quickly, and have full access into the cultures associated with those languages.[4]

While a child's body and brain are immature at birth, their healthy development depends on their interaction with the environment: what they experience, how they experience it, and, critically for some aspects of development, when the experiences occur. A useful way of thinking about children's experiences is the distinction between "experience-expectant" and "experience-dependent" aspects of brain development. Experience-expectant aspects of brain development are those that caregivers of children with normally functioning sensory systems do not need to worry about. These are forms of stimulation that the developing brain expects and is ready to receive, and that naturally occur in nearly all environments. Think of things like patterns of light and sound, or surfaces with different depths, like stairs, holes in the ground, or cups and bowls. However, there are times when we need to make decisions about the timing of these experiences for children.

When children have vision, hearing, or motor issues, there is a need to decide about the optimal timing of experiences. Fortunately, there is solid data to inform those choices. As an example, when children are D/deaf or hard of hearing, we now know that they will benefit from exposure to gestural languages (such as American Sign Language or Spanish Sign Language) as early as possible, even as early as the first few months of life. D/deaf children of hearing parents quickly develop age-level vocabularies if they are exposed to gestural languages.[5] These languages provide children with the same rich grammatical and semantic structures as do spoken languages. Access to these languages will not impair children's learning of other languages. In fact, exposure to sign language (even after cochlear implantation) increases language and cognitive skills in D/deaf children.[6] And while we know little about how the quality of sound from devices like cochlear implants compares to spoken language, gestural languages provide known natural, high-quality language to children. Of course, gestural languages also offer important social opportunities, such as access to Deaf cultures. But again, the main point is that early access to gestural language is critical for normative brain development.[7]

Similar findings emerge from areas such as speech/language and physical/occupational therapies, where the vast preponderance of evidence suggests that the earlier the exposure a child has to these interventions, the better their outcomes. Of course, this intersects with issues of public policy, as the availability of these resources and capacity to access them are not equally distributed in the population logistically (for instance, urban versus rural access) or financially.

Experience-dependent processes are those that the human brain is able to learn, but when and how this learning occurs depend upon what and when the child is exposed or taught. For example, the brain expects to learn a language, but what that language is – Mandarin, American Sign Language, Swahili, Hindi, Ewe – depends upon the language that the child experiences. But, again, timing of exposure matters and appears to help configure the brain for future learning and development. Toward the end of children's first year of life, they begin to narrow the information that they take in from the world, such as faces and speech sounds.

During these months, humans begin to become experts in and gravitate toward characteristics of their own social group.

Around eight months of age, children begin to become wary of people, especially adults, that they do not know, sometimes showing fear when approached by an adult who is not familiar – even when that is their grandparent who has come to visit but who they haven't seen for many months! This is also when infants begin to lose the capacity to differentiate sounds that are not a part of the language(s) to which they are exposed. Infants enter the world with the ability to hear all the sounds produced by all languages of the world, but by twelve months of age, they will begin to lose the ability to hear the distinctions of speech sounds that they do not encounter in their everyday lives.[8] Remarkably, six-month-old babies are as good at telling one monkey face from another as they are telling one human face from another. But by twelve months old, they can tell human faces apart, but not the faces of different monkeys of the same species. The same happens for recognition of people of different races, though not as profoundly. This narrowing of perceptual abilities – in language, face-processing, and social acceptance – is based upon the experiences that infants encounter in their lives. Babies exposed to different monkey faces remain good at telling monkeys apart; children exposed to different languages remain good at hearing the sounds of those languages; children exposed to people of different races and ethnicities excel at recognizing individuals across those groups.[9] Children with a wider range of social experiences are more comfortable with new people, although they still clearly know who is familiar and who is new. There is even now evidence that by two years of age, children use information about who is like them and who is not to decide who to learn from.[10] Because there are significant differences in how people express their thoughts and emotions across cultures, children who become adept at adjusting to these differences will engage with other people more successfully.[11] In a multicultural society, the earlier we expose children to the variety of people in their society, the better children should be at functioning beyond their homes and familiar communities.

Early childhood is also a time when children's bodies become conditioned to the degree of stress they must manage. Environments range in the physical and emotional demands they place on the people living in them. Human environments can vary on multiple dimensions: there may be extreme temperatures, the food supply can swing between feast and famine, and the number of pathogens an infant encounters can be very high or relatively low. Stress-reactive biological systems become calibrated early in life based upon the child's experiences. While the response of these systems helps to preserve life, they are metabolically costly, forming a tradeoff with wear and tear on the body. Early life is a sensitive period for establishing the set points for stress-responsive systems. The experimental evidence comes from work with animals showing that maternal interactions can actually change the regulation of the infant's genes that turn the activity of the stress system on and off.[12] At this point, we do not know how much difference there needs to be in the harshness of the environment to result in changes in the set point of stress-responsive systems. In rodents, offspring of mothers who provide low care had higher stress-reactive systems than offspring of mothers providing very high care. But "care" in rodents is not the same as care of human infants.

In humans, there is evidence that markedly deprived care, such as experienced in orphanage-like situations, calibrates the stress system differently than care in family-like contexts. But beyond such extremes, there is no evidence in humans that brief separations, such as when children go to childcare, have long-term consequences for stress reactivity and regulation if the childcare is good. These periods of sensitivity to input can be helpful for guiding decisions about certain experiences that might have the greatest impact on children's development.

Human brains have a remarkable ability to detect statistical regularities. Indeed, there is now evidence that the brain needs these regularities to build its circuits. For this reason, the predictability of their environments and of the responses of caregivers plays a critical role in children's development.[13] Children are sensitive to the statistical regularities that exist at many levels, from the probability that one sound in a language will follow another, to the probability that one caregiver action such as talking or touching will follow another. These patterns also include regularities that children come to expect in their lives, such as expecting that an evening routine will entail dinner, a bath, story time, and then bedtime. Even very young infants detect these patterns and use them to form expectations about what will happen next, and react when their expectations are violated. Infants also use their incorrect predictions to fine-tune and expand their learning.[14] The importance of predictability explains why children thrive in stability and, conversely, why chaos and lack of stability are harmful for children's development.[15]

Some aspects of creating predictable environments for children are relatively easy to ensure. We do not need to worry about making speech predictable; we only need to verbally engage with an infant, and the infant's brain will calculate the statistics of how a language works.[16] But we do need to deliberately ensure infants and young children experience routines and that their lives are as consistent and reliable as possible. This might involve regular mealtimes, expected bedtimes, consistent rules and discipline practices, and removing the barriers that make it hard for some families (such as shift work or just-in-time scheduling) to establish stability in the home. Creating predictable environments also means supporting the emotional health of those caring for young children, as mood swings among care providers can reduce predictability and stability of care. Frequent moves, changes in childcare arrangements, and, for foster children, moves between foster homes also create unstable, unpredictable environments. Perhaps most salient to children is caregiver reliability. Do caregivers deliver on promises? Are they punctual for pick-up times? If a child is frightened, can the caregiver be counted on to respond in a comforting way? While the importance of routines has long been emphasized in advice to caregivers, we now know that predictability is so critical to brain development that its effects can be seen even when other important characteristics of care, such as sensitivity and a positive regard for the child, have been controlled statistically.[17] In predictable environments, children are able to develop better regulation of thoughts, actions, and emotions, and that in turn affects an individual's academic success and later occupational and physical wellness.[18]

Lack of predictability in the environment has two effects. First, chaotic or irregular environments make it more difficult for children to learn patterns in their lives and in other people's behaviors. These patterns are the basis for a range of critical developmental skills that include communicating through language and emotion, and understanding how to engage and interact with others.[19] Second, unpredictability leads children to perceive their lives as uncertain or volatile, resulting in feelings of anxiety that extend activation of stress response systems, as well as making decisions based upon seeing the world as an unstable place.[20] This extended activation alters brain architecture in regions such as the prefrontal cortex, amygdala, and hippocampus, which undermines adaptive regulation and coping.[21] In contrast, relationships that are stereotypically repetitive, highly predictable, and marked by contingent responses – such as responding when an infant cries, comforting a child who is hurt, and providing support to a child who is distressed – foster healthy development of prefrontal-amygdala-hippocampal systems that help support well-regulated behaviors.[22] Of course, children do need to learn that they can handle some changes in routine, so when routines have to be upset, the child isn't completely thrown for a loop. However, planning matters in making both little and even big transitions more manageable for children. Notably, in studies of children in foster care, transitions from one home to another or back to the parent's care produce less behavior disruption and physiological stress when there is careful preparation for the placement change.[23]

Of course, as mentioned, to maintain a predictable pattern at home, those who care for children must have predictable work schedules, affordable childcare, and wages that allow them to provide for a child's needs. This aspect of caregiving is undermined when employers call employees to work and send them home on short notice, widely known as just-in-time scheduling. Low-income workers and single parents are more likely to work jobs with irregular schedules, making it difficult for them to create predictable daily life for their children.[24] In addition to just-in-time work schedules, children whose families experience homelessness and frequent moves (high mobility) are further behind in school on average than children whose families are similarly poor but have more stable housing.[25] Even when moves are not due to financial problems or family crisis, they appear to have a negative impact on children. For example, children in military families who moved had more mental health problems the year after the move than those in military families who did not move the year before.[26]

Part of a healthy, predictable environment involves a sense of controllability. Our brains are exquisitely capable of detecting when our actions produce results, and awareness of this association activates neural reward systems. Monkeys will work hard simply to make something happen, even when they are not rewarded externally. Simply being the one to do it (agency) activates reward circuitry. When caregiving is sensitive, a child's feeling of agency increases, and this reduces children's fearfulness. For example, by one year of age, children will smile and laugh if they are the ones turning on a loud, cymbal-clapping toy monkey, but will often cry and act frightened if the monkey starts clapping cymbals suddenly on its own.[27] Much of our experimental and thus causal evidence for the importance of a responsive, controllable environment for development comes from studies of nonhuman animals.[28] Social interactions are so important that monkeys reared in isolation have trouble learning and interacting with peers throughout their lives.[29] However, the more the motherless monkey is reared by surrogates that react to their actions, the more typical their development. At the low end, simply putting an inanimate cylinder covered in cloth (the "mother") on a pole that swings each time the baby hops on, as opposed to remaining stationary, helps yield somewhat more typical development. At the high end, having highly responsive dogs be the surrogate caregivers results in development that is remarkably typical.[30] Similar results have been observed in rodents, where variations in caregiving are associated with the development of learning and memory skills, as well as the emergence of stress-regulation abilities.[31] And as noted earlier, variations in early caregiving are associated with regulatory changes in the genes that control facets of the stress response (that is, the glucocorticoid receptors).[32]

Children benefit from support of their agency, and age- and skill-appropriate limits set on what they can control. As one famous developmentalist used to say, "the child needs to be in the driver's seat, but the parents have to set the rules for the road."[33] Having a goal blocked – that is, not getting a demand met – can help children develop the regulatory abilities to deal with anger and frustration without aggression. Having choices allows children to refine adaptive decision-making skills, but having too many choices or developmentally inappropriate choices can be overwhelming. Sensitive caregiving involves creating environments in which children can begin making behavioral choices within the boundaries and constraints that are appropriate for their age and developmental level. Indeed, there is evidence that when adults are too responsive, overly protective, or overly permissive, children may struggle to handle even everyday emotional challenges.[34]

The third theme that emerges from developmental science is the critical role of safety and social support. Humans are social animals, and our brains appear to be organized to form and depend upon relationships with others. While sensitive and responsive care supports so many aspects of healthy development, children can and do form emotional bonds with caregivers who are insensitive, unpredictable, and/or neglectful. But the latter relationships can leave children failing to feel safe and protected. This is important because children's own feelings about their sense of safety affect the way their stress response systems develop.

Humans evaluate situations as stressful when an outcome is important, and failure or harm is anticipated because of a lack of competency or resources.[35] Long before children are able to manage threats on their own, their appraisal of their resources to cope with threat largely depends upon the availability of supportive caregivers who, by their presence, signal safety. Indeed, across species and developmental stages, safety signals play a critical role in responding to fear and stress.[36] In fact, there is evidence that brain regions involved in triggering defensive responses are always active, which allows us to respond quickly when we are threatened. Safety signals increase activity in brain regions that dampen the activity of these threat-responsive circuits, holding them in check. When caregivers are consistent and reliable, infants come to expect that these caregivers will both respond to their needs and protect them from harm.[37] Unquestionably, threats occur in everyone's lives and all humans encounter situations that elicit varying degrees of threat. When children encounter these experiences with a sensitive caregiver on hand for support, children benefit from positive practice and growth experiences. They learn more about the world and their abilities to handle challenges.

Like adults, how children react to a potentially stressful event depends on whether they perceive it as threatening.[38] As noted earlier, having control over producing (or choosing not to produce) an event, like making a loud toy activate, flips an arousing toy from being scary to funny. But young children encounter many situations that are unfamiliar, and uncertainty leads them to reference the reactions of those around them whose reactions they trust. Most of us have seen a child be surprised by some event and look to their caregiver to see how they are reacting. Interestingly, by the early preschool years, children seem to analyze which of the other people around them should know whether an odd thing is dangerous or not. For example, when something unexpected happens at childcare and both the parent and the childcare provider are present, children tend to look to the provider as the trusted source of knowledge, whereas in other settings, they would look to the parent. The adults in a child's life are thus in a powerful position to shape the child's view of new situations, people, objects, and events. Caregivers who act timid or frightened of new people and situations provide information that these situations are causes for worry, reinforcing children's natural wariness. Likewise, children take cues from their caregivers about how upset they should be when something happens. When young children trip and fall to the ground, they often look up at their caregivers prior to crying. Calm reassurance from those caring for the child serves as a safety signal (at times preempting tears), while distress or alarm on the part of the parent or teachers serves as a signal of danger. Ignoring or rebuffing the child (for example, telling them, "Don't be a crybaby") also fails to signal safety.

In many situations, simply the presence of a trusted adult can serve as a stress buffer, signaling safety and reducing the activation of physiological stress responses. For example, among toddlers, having a parent with whom they have a secure relationship present and sitting quietly while the child encounters arousing and potentially scary events, such as a loud toy, can block elevations in stress hormones.[39] In contrast, fearful children with an insecure parental relationship show marked elevations in stress hormones in the same situation. Going to the doctor for a checkup and shots elevates cortisol for many children, but being with a parent with whom the child has a secure attachment buffers these elevations.[40] The power of the parent to serve as a stress buffer appears to continue throughout childhood. In children as old as twelve years, even just giving the child the opportunity to talk to a parent on the phone after the child delivered a stressful speech lowered children's stress responses.[41]

The power of the parent as a stress buffer appears to wane during pubertal development. This does not mean that parents cannot be supportive of their adolescent child's attempts to manage the stresses and challenges of being a teenager; they can and do. But their support appears to be more powerful if they provide a sounding board for the teen working through how they themselves will manage whatever is stressing them out.[42]

So far, we have focused on what caregivers (such as parents and teachers) do through their presence and ways of interacting with children to help the children feel safe and nurtured. We should also mention that there are forces beyond the control of individual caregivers that are critical in affecting the child's sense of safety that also have significant impacts on children's health and well-being.[43] Family finances and structural factors, such as structural racism, impact where families can live. Neighborhoods vary in the resources available to children and families to thrive and, critically, in the likelihood that children will be exposed to violence and cues of danger that threaten the child's physical and psychological safety. Many children live in regions of the world undergoing war and violence where no one can feel safe. For families of color, to keep their child safe, they must discuss ways for the child to protect themselves from being harmed by the police or others, which involves informing them of their vulnerability and lack of safety. There is growing evidence that place-based factors have a major impact on children's development and on their expectations of safety, danger, and how long they will live. Other essays in this volume examine the various types of caregiving that need to be considered in order to support the healthy and sustainable future of all.

The early environment plays a profound role in shaping a child's development, and parents, grandparents, teachers, and childcare providers, among other adults, make up a major component of a child's world. Predictability, age-appropriate sensitivity in these adults' responses, and safety have emerged as features of optimal caregiving. These elements are intricately linked, working together to create an environment in which children can effectively learn and thrive. A predictable and safe environment can provide children with a sense of emotional security. When children can anticipate events and routines, they feel more in control and are better able to regulate their emotions. An unpredictable environment can lead to heightened stress and anxiety in children, challenging their ability to regulate their emotions effectively. Predictable routines can support cognitive development by providing a structured framework for learning, wherein children can more easily anticipate and engage with consistent features in their environments. Predictable environments also allow children to learn appropriate behaviors and social norms through consistent modeling and reinforcement. Caregivers are the pillars that provide this consistency and the safety that allows children to explore their worlds.

Recognizing the importance of predictability underscores the critical role that caregivers play in a child's development. Consistent routines and sensitive interactions titrated to a child's developmental level and needs foster healthy emotional, cognitive, and social growth. Moreover, neuroscience underscores the importance of early experiences in shaping the developing brain. Caregiving practices also impact the brain's stress response system. Chronic stress in childhood can have detrimental effects on brain development, leading to long-lasting changes in the brain's structure and function. Neuroscientific studies have shown that children exposed to consistent caregiving, particularly in times of stress, have more robust and adaptable stress response systems, which are crucial for resilience in the face of adversity. In contrast, neglect or inconsistent parenting can lead to dysregulated stress responses, which may contribute to mental health issues later.

Scientific findings from the field of child development can empower those who care for children to make informed decisions regarding the children under their care. These data can and should also inform public policies to increase access to environments that offer these features to children. Making decisions based on scientific evidence ensures that caregivers are employing strategies that have been thoroughly researched and tested, increasing the likelihood of positive outcomes for children. Attention to the ages at which experiences are offered to children, efforts at creating the most consistent environments possible for children, and having environments that allow children to feel safe and supported are all science-based approaches through which caregiving can best promote child well-being.

But caregivers cannot do it alone. They need to be in environments that provide the resources needed to operationalize best practices in culturally sensitive ways with the tools at their disposal. They need not only access to evidence-based child development information, but opportunity to use that information. This means that the broader society needs to support children and those who care for them, and to understand and prioritize these essential features of the early environment. By doing so, we can pave the way for a brighter future for the next generation.

AUTHORS' NOTE

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ABOUT THE AUTHORS

Seth D. Pollak, a Member of the American Academy since 2020, is the Vaughan Bascom Distinguished Professor of Psychology at the University of Wisconsin–Madison, where he also holds appointments in the Lafollette School of Public Affairs, the Department of Anthropology, the Department of Pediatrics, the Waisman Center, and the Institute for Research on Poverty. He has published in such journals as *Psychological Science in the Public Interest, New England Journal of Medicine,* and *Proceedings of the National Academy of Sciences.*

Megan R. Gunnar, a Member of the American Academy since 2017, is Regents Professor and Distinguished McKnight University Professor at the University of Minnesota and a member of the National Academy of Sciences. She has published in such journals as *Nature Reviews Neuroscience, Proceedings of the National Academy of Sciences, Annual Review of Psychology,* and *Psychoneuroendocrinology.*

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Caring for Children in Lower-SES Contexts: Recognizing Parents' Agency, Adaptivity & Resourcefulness

Monica E. Ellwood-Lowe, Gabriel Reyes, Meriah L. DeJoseph & Willem E. Frankenhuis

From public policy to the social sciences, parenting in low-resource contexts is often viewed through a lens of deficit: there is a focus on what parents should be doing differently. We challenge this idea, highlighting the deliberate and rational choices parents with low socioeconomic status often make to navigate their circumstances and give their children the best lives possible under significant constraints. These parenting decisions may go beyond simply ensuring children's survival in harsh contexts. In some cases, they might give children the best shot at upward mobility. This view broadens our scientific understanding of good care, and implies that children may be best served when resources are spent on meeting families' needs, rather than instructing parents on how to care.

Under the Fourteenth Amendment of the U.S. Constitution, we are shielded from government intervention in our privacy, our autonomy, and the sanctity of parent-child relationships. But there is an important exception: parents can lose the right to direct care for their children if they are deemed "unfit." What does it mean to be a fit parent? In the courts, a key criterion is whether the parent is meeting the child's basic needs, such as safety and nutrition. Yet this determination may be less clear than it appears at face value. Should a parent struggling to make ends meet lose their parenting rights? Does parenting in underresourced contexts always make parenting *worse*? Unfortunately, in the courts and in the popular and social scientific narrative, the answer has been – implicitly or explicitly – yes.[1]

We argue that this conflation between low socioeconomic status (SES) and worse parenting overlooks ways that parents in low-SES contexts often navigate immense barriers to provide for their children. We offer evidence that parents with low SES are not only generally making rational decisions given their constraints, but that sometimes forms of parenting viewed as deficient are actually

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deliberate, adaptive decisions parents make to best care for their children. These forms of parenting can equip children with skills for surviving in low-SES contexts *and* for thriving more broadly.

The idea that children need skills tailored to their contexts is, of course, not new. Long-standing theories in biology propose that experiences (whether positive or negative) early in life prepare individuals for knowledge and strategies they will need later in life.[2] In neuroscience, brain plasticity is thought to allow individuals to adapt to a multitude of contexts.[3] And in anthropology and developmental psychology, the human life cycle is recognized for its extended childhood, which affords children time for learning during the years they depend on more experienced parents and peers.[4]

Building from these cross-disciplinary theories, we examine parenting in lower-SES contexts. We begin by reviewing differences in parenting across SES strata. How do wealthy, highly educated caregivers parent compared with those who have lower SES? Next, we point out the widely accepted difficulties of caring for young children in lower-SES contexts, and analyze the dominant academic theories that explain how this might lead to different – and, whether explicitly or implicitly stated, *worse* – caregiving behavior. Finally, we offer evidence that some of these presumed parenting deficiencies may actually be adaptive not only for caregivers in light of their constraints, but also for the children they care for, within and beyond the challenging contexts they must navigate. We ground our focus in the United States context, but note that these issues are applicable internationally.[5]

To be clear, appreciating the adaptive decisions of lower-SES caregivers is not meant to justify the status quo. We believe society has an obligation to make every effort to ensure all families have access to the resources they need to thrive. In fact, by framing parenting in constrained contexts as a display of resilience, adaptation, and rationality, the policy focus shifts from training them to behave differently to alleviating the material barriers families face.

Ultimately, understanding how care looks across contexts is critical not only for building an accurate social science of caregiving; it is necessary for ensuring low-income parents are treated with the respect and dignity they deserve. We highlight the agency of lower-SES caregivers, and the resourceful, clever, and valuable ways they choose to raise their children in a highly unequal society in which they struggle to meet their family's basic needs.

For decades, researchers have characterized differences between how caregivers with low and high SES parent. For example, compared to higher-SES parents, those with lower SES tend to appeal more to authority and talk less conversationally with their young children. Lower-SES parents are more likely to begin parenting younger or out of wedlock, and are more likely to participate in intergenerational parenting with more people living in the home. Of course, these coarse comparisons oversimplify the massive variation within and across SES, and the fact that average differences are continuous as a function of SES rather than categorically different.[6] Yet these findings have been highly replicated and sometimes widely publicized. We describe a few of these more fully below, and return to their significance for children in later sections.

In lower-SES households, there tends to be a greater emphasis on authority and conformity and more reliance on directive or authoritarian parenting.[7] A child is more often expected to follow rules without questioning them, and to conform to the expectations of the family. Conversely, higher-SES parents often invite open dialogue and negotiation. They are more likely to nurture their children's autonomy in the context of authority; rules are subject to discussion rather than strictly enforced, leading to a parenting approach that is conversational and sparing in the use of punishment.[8]

Similar differences show up in verbal interactions between parents and children. All parents need to direct their children's behavior, but higher-SES caregivers are more likely to do so indirectly through questions or statements ("Do you think you can tie your shoes?" / "I'd love it if you could tie your shoes"), while caregivers with lower SES might rely more on imperatives ("Tie your shoes"). Higher-SES caregivers also talk more with their young children, saying more words to their child throughout a day.[9] These parents are more likely to engage with their children as conversation partners, even before children are old enough to have much to say back.

In addition, while higher-SES households often fit the stereotypical American two-parent household model, lower-SES households are usually more socially diverse and complex. A child might live in a household with only one parent, but also with a grandparent, an aunt, cousins, or other extended family. Sometimes referred to as "crowding" or "chaos," this rich environment more common in lower-SES households might also be beneficial for the development of certain kinds of skills (such as greater social attunement and collaboration).[10] We will return to some of these observed differences to ask how they affect children. First, we turn to academic proposals for why these differences exist at all.

Two dominant frameworks have offered researchers a lens through which to view differences in parenting across SES: the Family Stress Model and the Investment Perspective. Both of these approaches emphasize the negative consequences of low SES for caregiving, but both may overlook differences that are positive or adaptive.

Originally developed to explain the behavior of rural white families facing economic hardship as a result of the Great Depression, the Family Stress Model proposes that barriers to economic or social well-being (for instance, reduced income) lead to the experience of pressure (such as economic strain), which in turn results in higher levels of distress for the parent.[11] This distress might affect their parenting by leading them to engage in more harsh discipline, for example, or by reducing their bandwidth to organize their child's activities.

Nevertheless, different caregivers may be affected by different stressors, and respond to even the same stressors in different ways. For example, Black parents with lower SES may be particularly likely to experience barriers related to racial discrimination. By contrast, recent Latine immigrants show less sensitivity to low incomes, perhaps as a result of having a different basis for comparison (their country of origin).[12] Yet the stress migrant parents with lower SES feel post-migration does seem to impact their parenting.[13] More highly educated parents today feel more stress related to their role in cultivating their child's achievement, for example, whereas less educated parents feel more stress related to providing for their child's basic needs.[14]

The other model – the Investment Perspective – is mutually compatible with the Family Stress Model, but it focuses less on the stress or pressure caregivers experience. Rather, the Investment Perspective emphasizes that having fewer resources leads parents to invest less in their children.[15] This reduced investment could take the form of material resources, such as books and toys, or other resources, such as cultural experiences (for example, trips to a museum), quality of interaction, and sheer time. It may be difficult empirically to discriminate between the Investment Perspective and the Family Stress Model. If families experience an increase in resources and also change their parenting (for example, by increasing the frequency of joint activities), it is hard to distinguish whether this change results directly from the resource change, or is driven by a reduction in the parents' stress as a result of their increased access to resources.

Still, there is plenty of indirect support for the plausibility of the Investment Perspective. For example, when children were randomly assigned to Head Start, their parents began to change their behavior at home, engaging in more cultural, literacy, and math activities.[16] Perhaps having one more resource at their disposal (childcare) led caregivers to invest more in their children in other ways. Similarly, a longitudinal study showed that changes in family income were related to later changes in the quality of children's home environment over time.[17] On a community level, the introduction of a free book vending machine in a neighborhood with little access to books led parents to engage more in reading activities with their children.[18] Evidence from cash transfers also suggests that parents often use the additional capital to invest in more resources for their children.[19]

These two models make sense at face value: with fewer resources, parents have fewer tools and are less buffered from stress. But they also paint the role of lower-SES parents in overwhelmingly negative terms, implying that the pressure these caregivers face impairs their parenting, or that they are simply investing *less* in their children. In other words, they share an underlying assumption about parenting in the context of social and economic barriers as implicitly deficient, compromised, or disrupted. This is not the whole story. We need a complementary perspective that explicitly acknowledges and leverages the agency and resourcefulness of caregivers in low-SES conditions that promote children's growth.

Listening to the voices of low-income caregivers themselves often reveals the conscious and deliberate ways they navigate their resources and make parenting choices. Their stories highlight caregivers' agency even in the face of systemic and structural barriers that erode opportunity.

A striking example comes from in-depth interviews with teenagers who chose to have children early and out of wedlock – something public messaging often condemns.[20] But rather than paint early childbearing as an ill-thought-out consequence of teenage desire, the stories of these young women highlight that it is sometimes a result of very real considerations about their own health, the health of their parents (who are better able to provide caregiving support while they are younger), and economic prospects.[21] For example, from a purely economic standpoint, most of these women are able to start making more money when they turn eighteen; having a child several years before this allows them to lose fewer years of earning potential.

Women are also well aware of the health disparities their communities face, and might prefer to have children at a younger age, considering their own health prospects:

> My 34-year-old sister is dying of cancer. Good thing her youngest child is 17 and she seen her grow up. My 28- and 30-year-old sisters got the high blood and sugar. The 30-year-old got shot in a store. She has a hole in her lung and her arm paralyzed. Good thing she had Consuela long ago. My 28-year-old sister wants a baby so bad. She had three miscarriages and two babies dead at birth.[22]

As this poignant quote makes clear, the decision to have children early is not always driven simply by stress or disinvestment. Rather, in certain cases, it is a practical, strategic choice given the context.[23]

Similar stories exist about parents' apparent disinvestment in their children's education. Why do fewer low-SES parents attend parent-teacher conferences?[24] The answer, again, is less simple than one of mere stress or investment. For example, when fathers have online arrest records, they tend to withdraw from public parenting activities, such as parent-teacher conferences.[25] On the surface, this may seem negative – an unproductive response to the stress of the arrest record, for example, that might harm children. However, interviews with such fathers suggested that it was a deliberate decision to protect their children. With the advent of the internet, an arrest record, even for a conviction that is later dropped, can live on forever for the public to see. Thus, these parents may avoid contact with the school to minimize the chances that their child is negatively labeled or associated with their arrest record. People who live in neighborhoods with heavy police presence, or racial minorities who face discriminatory policing, may be more likely to be arrested, and therefore subjected to a permanent internet record.[26] Thus, behavior that on the surface looked like less investment or a stress response was actually a strategic decision rooted in their investment in their child; the fathers did not want their children to face judgment or discrimination as a result of their own record.

Moreover, literacy-focused activities sometimes look different in lower-SES homes. To capture a child's home literacy environment, some common measures encourage researchers to count the number of books or magazines in a child's home.[27] Yet one scholar who grew up with a lower SES reflected on how many other ways her family promoted literacy outside of books: from playing Scrabble, to cocreating verbal narratives, to learning to read through prayer and Bible study.[28] Thus, while families in many low-income neighborhoods have systematically fewer access to books in their surrounding area, they may find other ways to promote the kinds of skills that are valued in school.[29]

Descriptive quantitative studies also reveal parents' strategic responses to the barriers they face. For example, neighborhood danger is related to parents' level of harshness and severe discipline.[30] While research tends to find links between these parenting characteristics and the long-term development of internalizing and externalizing problems, some environments might demand more direct and nonnegotiable instruction.[31] In these cases, harsh discipline may be an effort by the parent to protect the child from immediate danger. One mother described the need to prepare herself and her daughter for encountering violence in their neighborhood:

> Just keep her out of as many stressful situations as possible, but also keeping myself ready for an event, like, any event. I live in a dangerous neighborhood, the neighborhood I grew up in, so I know what can happen. I know that it's not the best of neighborhoods. I know that you can see anything at any time, and nobody will ever know you've seen it. It's kind of like just being ready for that, being ready for those conversations, being ready for those . . . events to actually happen. You know, we live in a world that nobody wants to shelter you from anything, especially now.[32]

A behavioral misstep from a child in a dangerous neighborhood is more consequential than the same misstep in a different context, perhaps necessitating the use of stricter parenting.

Of course, even if caregivers are making the best of their situation, or at least attempting to do so, this doesn't necessarily mean their choices are also best for their child. The same applies to the choices high-SES parents make, of course; they too may engage in forms of parenting that, though well-intentioned, are not actually the best for their children, such as overparenting.[33] Indeed, while many of these stories contradict the idea that lower-SES caregivers need to be taught or trained to do "better" given the resources available to them, they leave open the question of how these decisions ultimately affect their children. To put it simply: would children be better served if parents with lower SES were doing something different?

To pretend there is one obvious best way to parent in any particular context would be to minimize an indelibly complex issue. What counts as "best" depends in large part on our societal values and expectations about how children should develop and what kind of people they should become. But academic perceptions of ideal parenting do not always align with what the evidence shows works best for lower-SES children, children of color, or those facing intersecting marginalized identities.

Let's begin with a straightforward example. Parents in poverty are more likely to have their children earlier and out of wedlock.[34] As we have discussed, this is sometimes a deliberate and carefully thought-out decision on the part of parents.[35] But does it ultimately harm children? Though the empirical record is mixed overall, several studies suggest that it does not. One study that focused on Black families in particular found that while Black children in high-income environments benefited from living in a two-parent household – they showed better educational performance – there were no benefits for those in lower-SES contexts.[36] Another study looking across race found that while divorce was linked to lower educational attainment for white children, this was not true for non-white children. In fact, the biggest impact of divorce on white children seemed to come from the sudden loss of financial resources.[37] One possibility is that it is the effect of loss of resources that is harmful, rather than the family structure itself. Regardless of the mechanism, these studies make clear that encouraging young women in poverty to marry before having children – something that has been a target of policy over the years – may be ineffective or even harmful, introducing another opaque barrier with which these young people must contend.[38]

Other studies complicate the picture of the ideal parenting style. For example, authoritarian parenting – marked by a focus on the child's obedience to the parent – has been linked to negative socioemotional outcomes for white but not Black preschoolers.[39] Similarly, the use of physical discipline has been linked to more externalizing problems for white but not Black children.[40] In a cross-cultural study, authoritarian parenting practices were only associated with worse self-esteem among children from individualist backgrounds (Western European), but not collectivist ones (such as Egyptian, Iranian, or Indian).[41] While these studies compare across race and culture rather than SES, they show that the effects of parenting style on child outcomes might depend on context.

An underlying assumption is often that appeals to authority are harsh. Indeed, white upper-middle-class parents often prefer to give choices or allow for negotiation on disciplinary issues, and only appeal to authority as a last resort. But for parents in some contexts, appeals to authority may be more aligned with warmth and care. For example, Black children are much more likely than white children to face a set of systems and societal structures that do not work for them, limiting their safety and opportunity as a result of historical legacies of slavery and racist policy.[42] In these contexts, children must learn how to contend with injustice, so their parents may be offering care by steadfastly ensuring their obedience. Supporting the idea that children are sensitive to caregivers' intent and not just their actions, a study of Latine teenagers growing up in more violent neighborhoods found they actually viewed *less* authoritarian parenting as worse parenting, since it failed to respond to the lack of safety in their environments.[43]

Indeed, parents with marginalized identities who didactically prepare children for encountering bias might give their children advantages later on.[44] Converging evidence points to the benefits of messages about racial discrimination and preparing children for bias for Black children's psychological and educational outcomes.[45] The benefits of racial socialization are also evident for Latine children.[46] For these children, racial socialization helped to develop a "secure base," which in turn may promote healthy parent-child attachment.[47] Yet this parenting profile would clearly not have the same value for an upper-middle-class white parent, where preparing to understand racial discrimination is not crucial for a child's success (though it helps them to become informed citizens).[48] This is an example of parents going beyond simply fostering children's success in their home environments. These parents are helping to prepare their children for the school environment, but doing so through different means than those often observed in higher-SES households.

How parents talk to children to best promote learning needs to be reexamined as well. Language researchers have classically assumed that certain kinds of speech provide the most suitable input for children to learn from, yet determinations of high-quality language are inherently value-laden and contextually dependent.[49] For example, speech that is directive in nature ("Put your shoes on") is thought to convey less helpful information linguistically than speech that follows the child's attention, comments, and labels ("I can see you don't want to put your shoes on"). Indeed, higher-SES families are more likely to use the latter. The proportion of directives in these young children's language environment negatively relates to their rate of word learning over time.[50] But an in-depth study of directive use in lower-SES Black families found a different effect. For these children, in fact, the more directives they heard the *more* words they learned over time.[51]

Finally, traditional parenting measures may fail to capture the breadth of strategies parents use to nurture their children. Sometimes surveys will measure parent responsiveness with questions like, "Do you help your child with their homework?" But one close examination found that Latine parents who scored low in responsiveness on these forms of standardized academic measures were indeed quite responsive in unmeasured ways. For example, when they couldn't help their child with something directly, they enlisted the help of others inside or outside the family.[52]

Our takeaway here is that "good" care is often context dependent. Of course, there are dimensions of parenting that are uniformly positive or negative: all children need a baseline degree of safety and care. But some of the parenting behaviors that research has classically labeled "maladaptive," "undesirable," or "low quality" may in fact be perceived quite differently within the contexts where it happens most, and may actually be positive for children in those contexts. Research shows that children's *subjective* experience of events predicts their well-being; thus, even if a researcher deems an event or way of parenting stressful, it may not be experienced that way by a child.[53]

Where do we go from here? As a society, we espouse the goal of helping lower-SES children, but we have much more divergent attitudes toward helping lower-SES parents. Even people who have lower-SES themselves often subscribe to the narrative that emphasizes individual responsibility and pulling oneself up by the bootstraps.[54] Implicitly or explicitly, this narrative has permeated our approach to understanding parenting in lower-SES contexts; it has spurred interventions that focus on changing parents' behaviors, more so than changing their contexts.

A number of these interventions are meant to train lower-SES people of color to behave like high-SES white people. But these individual-level interventions have a history of limited effectiveness or even backfiring.[55] A clear example comes from a multimillion-dollar initiative that sought to teach couples in poverty communication skills in the hopes that this would lead to better marriage outcomes.[56] Among couples with lots of resources, relationship satisfaction improved when husbands withdrew less from their partners' demands, as the intervention promoted. But the opposite was true for couples with low resources. For these couples, meeting high demands with withdrawal led to *greater* relationship satisfaction. Perhaps withdrawal is adaptive when a couple doesn't have the means necessary to address the demands, or perhaps there is a different mechanism at play. Regardless, this example points clearly to how individual-focused interventions can miss the mark, overlooking systemic challenges these families face.

Another example of how individual-level interventions may fail to have the desired effects comes from financial literacy programs. The goal of these interventions is to improve lower-SES parents' ability to manage their finances, for instance, by reducing engagement in "risky" financial behaviors like taking out high-interest loans. Importantly, however, they often fail to consider the economic realities of lower-SES families. When families take out high-interest loans, they may have no alternative. These financial literacy programs do not address the root cause of lower-SES families' struggles with money. These programs are not sufficient to promote healthy financial behaviors; rather, *access* to cash is essential.[57] Indeed, when you ask lower-SES caregivers what their biggest parenting stressors are, they almost uniformly answer: "money."[58]

Perhaps not surprisingly, attempts to intervene directly on the systemic barriers families face are more successful. These interventions have two main strengths. First, they alleviate some of the stressors associated with economic and material hardship. Second, they give parents agency to focus on their exact needs to provide quality care for their children in *their* specific context.

Indeed, simply giving parents access to more resources may be the most effective intervention of all. For example, universal basic income programs have demonstrated considerable success in providing financial stability and overall well-being to lower-SES families.[59] In fact, a study in rural Kenya found that giving people money improved their economic and psychological well-being more than a mental health intervention.[60] These types of systems-level approaches contrast with individual-level interventions that do not address the root of people's needs, though recent evidence from cash transfers in the United States is more mixed.[61] Converging evidence across randomized controlled trials of cash transfers, natural experiments, and analyses of policy changes points to the positive effects on both parent and child well-being when increasing families' resources.[62]

Access to childcare is another critical issue that needs to be addressed at the systems level. Childcare directly impacts parents' ability to work and pursue education. Children from lower-SES families in particular benefit from high-quality childcare.[63] However, for lower-SES families, the high cost and limited availability of quality childcare options act as a major barrier. Thus, policy changes to make high-quality early childcare more universally accessible should be a priority.

While lower-SES families clearly need access to housing, health care, high-quality education, and general financial support, we argue that parents also deserve agency to simply "play" with their child. When one study asked parents in poverty what would help them, they encountered the usual suspects of policy-related debate: housing, education, transportation, financial support.[64] But there were other dimensions that are less often discussed. One parent said: "Once a year...a program that could let a family go on vacation together, spend that quality time, because I think for a lot of us, our biggest issue is we're working jobs...we just don't have that time to really bond with our children."[65]

This quote raises the question: in our society, who is afforded the agency to simply play? A parent's desire for a family vacation to bond with their children highlights the importance of play, something often denied to low-SES families with financial constraints or inflexible jobs. What if we envisioned a policy that freed parents from these shackles? For example, we could imagine government-subsidized family vacation programs, mandated family leave policies that extend beyond the usual scope of medical or parental leave (if such opportunities are available to lower-income families), or initiatives that provide local and low-cost leisure opportunities, such as during summer when children are on break from school. We offer this perspective to challenge us to consider the value of leisure and play – as well as considering *who* has access to such activities. These moments could promote connections among family members and positively influence child development beyond merely satisfying the bare necessities of life.

The idea that optimal parenting might depend on a family's context, while contentious in the social sciences, aligns with theories from evolutionary biology. These theories first acknowledge, of course, that it is generally better for organisms to grow up in favorable conditions. However, *if* organisms are confronted with unfavorable conditions, they may benefit from acquiring knowledge and strategies early in life that prepare them for their adult environment.[66] Thus, children who see their caregivers worried about buying food, paying rent, fearing police, being discriminated against, and having little control over their circumstances might acquire useful information needed to deal with their harsh and unpredictable realities; information we wish they didn't need to learn. The currency of biology is survival and reproduction, not well-being; and these two need not align. For instance, if children develop hypervigilance in a dangerous (family or neighborhood) environment, this might reduce their risk of physical harm, yet lower their well-being.

But the evidence we have discussed goes one step further. Low-income parents are not only preparing their children for surviving low-income environments. In some cases, they are cultivating environments in which their children can flourish. This evidence stands in contrast to pervasive views about low-income parents in popular culture and public policy. In the United States, an estimated 37 percent of children have Child Protective Services called on their behalf; for Black children – who are more likely to face racism and conditions of structural oppression – this estimate rises to 53 percent.[67] What biased social scientific accounts of "good parenting" have influenced the policy and practice that lead to these statistics is an open question.

As others have convincingly argued, poverty is a policy choice.[68] Pandemic-era policies in the United States bring this point home. In 2020 and 2021, the United States offered a number of provisions that shrank the poverty rate (a threshold meant to represent the percentage of families not making enough money to meet their basic needs) to only 5 percent. In 2022, when pandemic-related provisions ended, poverty rose to 12 percent, perhaps the sharpest rise in decades.[69] These data suggest that if the goal is for lower-SES parents to have resources, we could design policy that gives them resources. Yet despite this, many social scientists have instead focused on how parenting itself replicates inequity; they have focused on what they think low-income parents are doing wrong and should be doing differently.

The emphasis on individual parenting behavior has shifted attention from a structural problem toward individual-level solutions. The result is that theories of caregiving in the social sciences have often advanced certain forms of parenting as ideal – specifically those forms that are more common in upper-middle-class white contexts.

We have argued instead that theories of caregiving should consider the broader contexts front and center, not as an afterthought. In the face of daunting barriers, caregivers often navigate their circumstances adaptively and resourcefully to promote their children's survival, success, and well-being. Practically, if we lose sight of this fact, we risk not only demonizing parenting styles more common among lower-SES parents, but also misallocating resources to individual-level solutions and even limiting a parent's basic rights. Indeed, these deficit-focused narratives may in some cases have created grounds for unfair legal rulings on fit and unfit parenting, excessive involvement of Child Protective Services, and other invasive interventions. Theoretically, we risk minimizing the adaptive and context-dependent nature of care to a unidimensional spectrum from "bad" to "good." Both science and policy are best served by a capacious view of parenting in lower-SES contexts, one that recognizes and leverages parents' agency and strengths, while also addressing vulnerabilities.

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ABOUT THE AUTHORS

Monica E. Ellwood-Lowe is a Postdoctoral Scholar in the Changing Brain Lab at the University of Pennsylvania. She has published in such journals as *Nature Communications, Developmental Science,* and *Child Development.*

Gabriel Reyes is a Knight-Hennessy Scholar and Quad Fellow in the Developmental and Psychological Sciences in the Graduate School of Education at Stanford University. They are also the Founder and CEO of FLi Sci, a nonprofit organization supporting first-gen/low-income (FLi) students to pursue careers in science. They have published in such journals as *Developmental Cognitive Neuroscience.*

Meriah L. DeJoseph is the Ruth L. Kirschstein National Research Service Award Postdoctoral Fellow through the National Institute of Child Health and Human Development at the Center on Early Childhood at Stanford University. She has published in such journals as *Child Development, Psychoneuroendocrinology,* and *Developmental Cognitive Neuroscience.*

Willem E. Frankenhuis is Associate Professor of Evolutionary Psychobiology at the University of Amsterdam and a Senior Researcher at the Max Planck Institute for the Study of Crime, Security and Law. He has published in such journals as *Trends in Cognitive Sciences, Child Development,* and *Evolution and Human Behavior.* He founded and directs the international research network on Communicating and Expanding Research on Adversity.

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Looking Back to Look Forward: Leveraging Historical Models for Future-Oriented Caregiving

Maisha T. Winn & Nim Tottenham

What can we – as educators, parents, researchers, community members – learn from independent Black institutions about expansive ways to support the well-being of children and their families? And why and how ought we look back to look forward, regarding caregiving that is culturally relevant and sustaining? Here, we explore independent Black institutions as educational contexts in and through which Identity, Purpose, and Direction were cultivated with intention to support robust learning opportunities. We begin to unpack these rich, historic sites of caregiving with attention to data and messaging around how to nurture children as affirmed and agentive learners, and with respect to the role and value of nested communities that include biological family and invested educators.

Research and scholarship on the science and pedagogies of caregiving at the institutional level in the United States have usually focused on mainstream institutions such as the public school system. Explorations and analyses of alternative historical institutions, such as independent Black institutions (IBIs), on the other hand, point to notably different relational and educational perspectives, framings, and implications. Established in the 1960s and early 1970s, IBIs were created by a wide range of Black community members, including Black parents, artists, educators, and others inspired by calls for self-determination. Historical analysis shows that in IBI schools and preschools, closeknit cohorts of adult men and women collaboratively assumed a wide and fluid range of roles, serving key relational and educational functions that the caregiving literature primarily situates with individual caregivers, especially mothers. Also understudied by scholars in the domain of education, the existing scholarship tends to present IBIs in monolithic ways that center gender politics and/or tensions between and within the Civil Rights and Black Power Movements. Such narrow lenses fail to capture these historical models of caregiving and sites of learning in ways that point to their potential to inform discourse and approach across these too-often siloed domains.

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IBIs were intentional about nurturing the well-being of future generations of Black people, with named goals to "educate and socialize" Black children to "assume . . . future roles" that were wide ranging, using the complementary pillars of Identity (Past), Purpose (Present), and Direction (Future).[1] In this essay, we ask what IBIs can tell us about expansive ways to support the overall well-being of children and their families. Do IBIs shed light on and help us (re)imagine caregiving models that are culturally relevant and sustaining? The scholarship on caregiving has identified parenting characteristics that tend to be associated with well-being in children.[2] Here, we present IBIs as a historic practitioner model of/for caregiving at the communal, intergenerational level that intersects with focal principles identified in the empirical literature on caregiving. Cultural ways of being and knowing influence how any community converges around and executes caregiving goals; and across disciplines, there is a gap in caregiving/caregiver-focused research. IBIs have much to teach researchers and practitioners about comprehensive approaches to caregiving, inclusion and inclusivity, and recognition. They also offer insights into the social nature of human development, attachment relationships, security that facilitates learning and/through exploration, building trust, intersubjectivity, and elders as models. We begin to unpack IBIs as rich historic sites of caregiving approach and impact, with attention to implications of interest.

Public narratives center the Civil Rights Movement with little to no consideration of subsequent liberation movements. The omission of these movements from the civil rights discourse undermines the work of Black artists, parents, educators, and neighbors who imagined and designed institutions that focused on Black lives and futures.[3] Historian Peniel Joseph, for example, invites us to see the Black Power and Civil Rights Movements as inextricably linked, with the former a crosscutting component of the latter.[4] With explicit goals around reclaiming the caregiving and education of Black children, IBIs took shape as localized embodiments of the Black Arts Movement – the cultural arm of the Black Power Movement – which was most influential from 1965 to 1975.[5]

Putting discourse and ideology into practice in/as brick and mortar, public-facing institutions serving Black communities, most IBIs offered P–12 schooling. Committed to Black family wellness overall, many also met community needs via food cooperatives and/or vegetarian eateries, typesetting services to support Black writers and businesses, publications that leveraged the literary imagination in pursuit of liberation, and/or nation-building classes for adults focused on how to care for one's family and community independent of any state or government support.[6] Most IBIs were guided by the principles of Black cultural nationalism, the belief that people of African descent possess a unique "ethos" due to their enslavement in the Americas and the Caribbean, through which numerous traditions, practices, and adaptations from African homelands endured – with a whole continent's landscape of ethnic, linguistic, relational, spiritual, political, artistic, and other norms.[7] At the heart of Black cultural nationalism was the belief that Black and Blackness are thus intersections of color, culture, and consciousness.

So which pieces of which culture/s would provide the foundation for Black communities of the United States? Which cultural knowings even remained, after generations of systematic, systemic undertakings to erase language, family, and ethnic bonds, and prevent enduring community through violence and physical and socioemotional torture? The Nguzo Saba, the seven principles of Blackness, created by activist and Africana studies scholar Malauna Karenga in 1966 and celebrated today through Kwanzaa, were the root of IBIs' caregiving goals, approaches, measures of success, and impact.[8] These principles are Umoja (Unity), Kujichagulia (Self-Determination), Ujima (Collective Work and Responsibility), Ujamaa (Cooperative Economics), Nia (Purpose), Kuumba (Creativity), and Imani (Faith). And it was these prioritized practices, this shared Black value system, that Black Power and Black Arts Movement leaders and stakeholders sought to embody and spread.

We (Maisha and Nim) first crossed paths at a Social Science of Caregiving convening at the Center for Advanced Study in the Behavioral Sciences (CASBS) at Stanford University. Maisha was then a CASBS fellow, ethnographer, and education researcher diving into a historical ethnography project examining IBIs. Nim studies the effects of caregiving on human brain development and she framed the opening session "Biological and Neurological Foundations of Care." Nim shared data regarding the emotional learning afforded to the infant from caregiving experiences, and this affordance was described in the context of the safety and security provided by the available caregiver. During the session, both of us saw the potential value of collaborating to explore convergences of developmental science and IBI values and practices.

While our academic paths don't always overlap, we share a desire to revisit and reclaim historical models of caregiving rarely included in published research. We seek to disrupt all-too-common narratives that overwhelmingly position white families, white parents, white desires, and white norms as the model for parenting nationwide, without critique of how structural, interpersonal, and internalized racism and racist ideas interfere with parenting, teaching, and children's experiences and outcomes. Maisha's point of entry is keenly interested in how people of African descent cultivate and sustain literate identities through community. Nim's field is psychology and human neuroscience. The disciplinary and methodological unruliness of our coming together deepens our emergent reflection and dialogue about the future of caregiving. And this highlights what we and our colleagues inevitably miss when we retreat to our respective silos.

As we began sharing and thinking together, it was useful to reflect on our own upbringings. Maisha's African American parents were engaged in Black liberation struggles and were institution builders committed to educating Black children through foundations of Identity, Purpose, and Direction. Early Kwanzaa practitioners, they modeled the aforementioned seven principles of Blackness not merely as holiday celebration, but as a value system that permeated all aspects of daily life all year. Caregiving, in this context, meant providing enough structure and support for children and adults alike to learn to be wisely agentive as they conducted themselves. Nim's family includes a mix of cultural influences: her mother immigrated to the United States from South Korea; her father was white American. In Nim's context, caregiving took shape in ways heavily influenced by East Asian traditions of Confucianism, as a bidirectional relationship that spans the lifetime and generations, with early parental care investments later reciprocated through filial piety and then personal caregiving returned to parents as they age. Two patterns caught our attention. The cultural backgrounds and assumptions we brought to our work together differed in many critical ways, emphasizing the variability of caregiving culture across individuals and societies – variability that remains relatively neglected in the literature on caregiving. And, for both of us, the deep role of the larger community, beyond individual caregivers, was a formational aspect of our respective upbringings.

With this background in place, we offer points of convergence between guiding principles and practices of IBIs and the science of caregiving that have emerged from the literature, our research, and our discussions together. The caregiver can be thought of as a "mega-stimulus" in a young child's life, serving multiple functions in establishing the foundation of processes upon which the child will rely in future years. IBIs served much the same role in the lives of the families those institutions engaged. Here, we discuss how the three pillars of Black education common across IBIs (Identity, Purpose, and Direction) converge with six caregiving variables identified in the literature: the socially embedded nature of human development, the attachment relationship, security that facilitates learning/exploration, trust building, intersubjectivity, and modeling elders.

Pillar I: Identity

1. *The socially embedded nature of human development.* Multiple traditions within developmental psychology point to the importance of accounting for the socially embedded nature of human development when considering children's well-being.[9] Describing the intimacy and interdependency between children's well-being and their social ecology, psychoanalyst and pediatri-

cian Donald W. Winnicott dramatically noted, "there is no such thing as an infant."[10] This statement was meant to emphasize that humans are an altricial species, a species born without the ability to live independently. Indeed, humans have an innate expectation and need for caregiving. Caregivers increase our odds of physical survival and provide social scaffolding that guides brain and behavioral development toward the mature form.[11]

Comprehensive models of the mental, cognitive, and emotional development of children thus acknowledge and appreciate the extent to which these outcomes emerge through collaboration between children and their caregivers. Psychologist Urie Bronfenbrenner's ecological model of development extends this notion, recognizing the continuity between family and community.[12]

Applying this framework, we see IBIs as having played a critical caregiving role for those who engaged in their creation of a multilayered social structure. By definition, IBIs provided an intentional social ecology for children that was also intergenerational (and historical) and invited all who engaged to consider their role and possible contributions to the world. What the caregiver is to the child, IBIs might have been to the children and family members of those children. IBIs provided scaffolds for children to be good stewards of the gifts they had to offer, and focused on cultivating those unique gifts. For example, the Institute of Positive Education, established in 1969 in Chicago, and the Ahidiana Work/Study Center, established in 1973 in New Orleans, both focused on early childhood: pre-K through approximately age eight.

2. *Attachment relationships*. The child's first community is their family, and the most proximal and salient adults in the family are the child's primary caregivers. The caregiver-child relationship is now known to be a learned relationship, with children tending to develop attachment/s to the adult/s with whom they interact regularly and who is/are most responsive to their needs (physical, emotional, cognitive).[13] While researchers have overwhelmingly focused attention on the mother as the primary attachment figure, research has also shown that primary caregivers may also or instead be other important adults in the child's life (or perhaps even a small collection of adults) who routinely provide caregiving.[14] Such findings speak to the power of the caregiving environment (whether it consists of one adult, two adults, or several adults) as the critical element that becomes represented in children's internal working models.[15]

   The human ability to be presented with and respond to multiple caregivers is a phenomenon called alloparenting, and humans often provide care for children who are not their own offspring, which is understood to be an adaptive behavior.[16] We use the term caregiver as an intentionally flexible definition indicating the person or persons who take caregiving responsibility for a child and to/with whom that child forms an attachment relationship.

A striking feature of IBIs is that they assumed this broader picture of a caregiving alloparent community, in contrast to the usual focus on parents or, even more narrowly, just biological mothers. All adults within IBIs worked thoughtfully together to provide a foundation for the future success of the children they served. IBI educational institutions situated every adult in contact with the community's children as part of the caregiving system. Adults driving the bus, preparing and serving the food, and being involved with direct instruction all had relationships with the children and influence over those children's ideas, and worked collaboratively to adhere to a shared value system. Within IBIs, children thus experienced a very broadly defined caregiving network that extended, from the earliest years, beyond one biological parent. Notions of "the teacher" and "teaching" were also more expansive, and situated as central to the role of every adult who was part of an IBI. As stated in materials from the EAST, a Brooklyn IBI established in 1969, "What we require is sincere interest in the growth and development of Black youth and a devotion to work and learning."[17]

Pillar II: Purpose

3. *Security that facilitates learning/exploration.* As an altricial species, infants are born with a great need for and expectation of protection provided by a caregiver. Infants cannot independently manage stressors encountered early in life. In fact, the protection provided by caregivers to the infant has been associated with a strengthened ability for the child to independently manage stressors later in life.[18] For the infant, the caregiver provides an external source of buffering against potentially harmful stress reactions that the young brain is not yet equipped to manage alone.[19] This stress buffering is important not only for protecting the developing brain against elevated levels of stress, but also for teaching a young child to safely explore the environment for the purposes of information gathering and learning.[20] That is, the protection afforded by the caregiver is bedrock upon which children feel free to take risks and explore their environments. This exploration leads to learning.

   In the same way, IBIs sought to provide a buffer to their members by ensuring that Black children received affirming messages about what it means to be Black, not merely by way of color and skin tone but with respect to culture and consciousness.[21] As children learned how to love themselves, their families, and their communities, they became equipped to be in the world and engage with a diverse community of stakeholders while maintaining a sense of self and confidence that armed them for numerous contexts. Security makes a human brave, and strong foundations allow space for risk-taking.

Many IBIs published books, pamphlets, journals, and newspapers of their own to provide Black people with affirming images of Blackness. In Chicago, for example, The Institute of Positive Education created a literary journal, *Black Books Bulletin*, that not only reviewed literature for mature readers but committed space to the ongoing review of children's literature. Black caregivers could learn to discern between literature that would support their children's positive identity development and literature that could be detrimental to their sense of self.[22]

4. *Trust-building.* As a reliable source of social buffering, caregivers – and IBIs – develop/ed implicit and fundamental trust with and within the child.[23] Such trust is crucial; it forms the basis upon which future social influences rest, building the child's implicit sense that "someone has got my back," as well as the sense that the child can trust themselves. Trust in self and in others is elemental to self-agency, the notion that children can influence their environments. Development of trust early in life is also a strong predictor of children's ability to form successful relationships with others in the future.[24]

   Practices within IBIs were designed explicitly to build trust. The focus on self-discipline, for example, is one strategy IBIs leveraged to build trust and confidence with children. Discipline in the context of IBIs was not something enacted onto children, but a practice cultivated within. By providing a value system – the Nguzo Saba – Black institution builders sought to appeal to children's intellect and reasoning rather than simply telling them what to do. In addition, great emphasis was put on the role of the *mwalimu* (the Kiswahili word for *teacher*) and the expectation that the teacher would see working with, for, and on behalf of Black children as an honor, even if there were struggles involved. A critical sense of self-value develops from the social cohesion formed from this type of intimate interpersonal trust: the child can develop a sense of "belonging" within and to a larger group.[25]

5. *Intersubjectivity.* Intimate relationships, including those between a young child and their caregiver, are accompanied by intersubjectivity, the phenomenon by which two individuals intuitively communicate with each other and have a shared understanding of the external world.[26] Psychology researchers have argued that when two people share an understanding of the

world, they satisfy a desire for interpersonal connection.[27] The attachment relationship between caregiver and child has been described as one that becomes characterized by increasingly complex intersubjective processes.[28] Intersubjectivity also facilitates children's learning from others and thus has been understood as a core component of cognitive development.[29]

Intersubjective processes were central to IBI practices. Print materials designed and produced by IBIs often dedicate time to defining the purpose and goals of education. The EAST, for example, asserted in their school handbook that "the education of our people must have a purpose if it is to be meaningful and fulfilling." This "meaningful" education was built on the premise that children were "being educated to build for *all* of our people and to provide for the needs of our people."[30] This shared understanding and commitment was modeled from "teachers" in the space. Children saw their teachers working across domains to create opportunities for the Black community both within and outside school walls. This kind of education, according to Black institution builders, purposefully contrasted with Western ideas of education, which some institution builders believed trained children of African descent "from birth to work against" themselves.[31] At the EAST, children and their teachers had to be guided by the question "What kind of society do we want to build?"[32]

Pillar III: Direction

6. *Modeling elders.* Caregiving environments provide numerous opportunities for children's learning. Social learning is a primary means of acquiring new skills and identifying role models that help shape children's emerging identities.[33] Although children can learn from various social models, they tend to learn especially well from caregivers.[34] This moderation of learning rate by nurturance may be one reason why children more often imitate parents than strangers.[35]

   The role of IBIs in families' lives may have created a caregiving context that both increased access to prosocial adult models and promoted modeling of those behaviors through a highly nurturant context. In the context of IBIs, every elder was a "teacher," whether that adult did or did not have a role in the formal education of the child, and it was expected that male adults be as involved with the education of small children as female adults. We hypothesize that such access to a diverse range of role models benefits children.

As we imagine the future of caregiving, we think it would be important to revisit the rich histories of social movements – especially those driven by nondominant communities – to learn about tools, strategies, mindsets, and values successfully employed to care for the young. Community models have much to teach us about how to expand our understanding of caregiving. As we seek out new ways to frame the science of caregiving, we can and should learn from how communities have already done this work.

ABOUT THE AUTHORS

Maisha T. Winn is the Excellence in Learning Graduate School of Education Professor at Stanford University and Faculty Director of the Stanford Accelerator for Learning's Equity in Learning Initiative. She is also the Principal Investigator for the Futuring for Equity Lab. She is the author of several books, including *Justice on Both Sides: Transforming Education through Restorative Justice* (2018), *Girl Time: Literacy, Justice, and the School-to-Prison Pipeline* (2011), *Black Literate Lives: Historical and Contemporary Perspectives* (2009), and the forthcoming *Futuring Black Lives: Independent Black Institutions and the Literary Imagination* (2025).

Nim Tottenham, a Member of the American Academy since 2024, is Professor of Psychology, Chair of the Department of Psychology, and Principal Investigator of the Developmental Affective Neuroscience Lab at Columbia University. She has recently published in such journals as *Nature Mental Health*, *Memory*, and *Developmental Science*.

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Why Do Women Care More & Men Couldn't Care Less?

Toni Schmader & Katharina Block

The health and well-being of society are sustained by a combination of paid and unpaid care work. Yet caregiving roles and occupations are overwhelmingly occupied by women. We outline evidence for five key sociocultural barriers to men's engagement in the care economy. These include prevalent cultural stereotypes that men are inherently less caring, despite little evidence for gender differences in caregiving abilities. Rather, men are socialized from a young age to devalue care as an activity at odds with being a man. These gendered beliefs about care have been getting wider over time and are especially entrenched in wealthy, individualistic societies. Without a collective understanding of these sociocultural barriers, people are unmotivated to change them. Given the myriad benefits of promoting a more gender-balanced care economy, elucidating the reasons women care more than men can motivate society to overcome these obstacles in new ways.

Caregiving is essential to the health and well-being of societies. Aging populations, rising inequality, and the COVID-19 pandemic all shine a bright light on society's reliance on those in caregiving roles. These roles include care in different spheres. Caregiving happens within families to raise offspring, manage a household, and tend to those who are ill, disabled, or elderly. Caregiving also includes volunteering one's time and effort within one's community, either formally or informally, to provide services not covered by governmental programs. Finally, paid care work in education, health care, and social services provides vital care services to society. Taken together, these varied examples of paid and unpaid care contribute to the care economy.[1] A thriving care economy is not only tied to economic wealth; it is indexed by country-level metrics of human development such as high literacy rates and education levels, low infant mortality, and longer life expectancy. Given the essential function of human care activity for fostering global well-being, we might expect that roles in the care economy would be coveted, respected, and highly valued by everyone.

But take a moment to picture a "caregiver," either paid or unpaid, and the person who likely comes to mind is a woman. This tendency to "think care, think woman" to some extent reflects the reality of gender segregation into different roles. To date,

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men are markedly underrepresented in care-oriented roles, activities, and careers. For example, across the globe, only one-third of the 215 million people employed in paid care jobs over the last decade were men. In the Americas and Europe, the percentage of men in these roles is less than 25 percent.[2] This underrepresentation of men in the care economy is critical to understand given the severe labor shortages in these fields.[3] In fact, the demand for people to fill jobs in the care economy outpaces labor demand in computing and engineering, sectors that have invested considerable resources in recent years to increase gender diversity and inclusion.[4] Similar gender imbalances are evident in the home, where women in heterosexual relationships continue to shoulder the responsibility for caregiving.

The emerging science of caregiving needs to identify the barriers to men's active engagement in caregiving. And yet, both scholars and the public alike give relatively less attention to understanding or reducing gender gaps in care motivation.[5] Research on gender inequality often focuses on the constraints placed on women and ways to increase women's opportunities to enter into domains, roles, and occupations long dominated by men. But research points to powerful sociocultural constraints on men's behavior and preferences that are often overlooked and understudied.[6] As such, we join with other scholars who have recently emphasized the need to expand our consideration of gender inequality to include men.[7] Our goal in this essay is to synthesize the evidence for several important sociocultural barriers that constrain men's interest in and engagement with caregiving roles and activities. We then consider how such constraints might be addressed to foster greater gender equality in care.

Why don't men care? Different academic disciplines will seek to identify different parts of this elephantine problem. Perhaps men are less likely to be primary caregivers for young children because paternity leave is unavailable (says the policy analyst). Perhaps men are constrained from volunteering and caring for elderly parents because of the higher work demands placed on them (says the sociologist). Perhaps men are less attracted to careers in teaching and social work because of the lower salaries these careers pay (says the economist). While each of these scholars would surely have their finger on one contributing factor in a specific domain of care, they might miss the social psychological processes that give shape to a more foundational part of the problem. Men don't care because women do, and being a man too often requires being unlike women. These culturally ingrained beliefs about gender and masculinity can inhibit men from imagining themselves taking on caregiving, much less finding a sense of meaning and purpose in it. These psychological processes attract women to and repel men away from care in ways that are self-reinforcing, serving to replicate the types of systemic forces identified by our hypothetical policy analyst, sociologist, and economist.

Of course, these broad generalizations are not true of all men or for all forms of care. For example, compared to straight men, gay men are disproportionately represented in female-dominated occupations that require social perceptiveness, such as nursing.[8] In recent years, fathers have also become more involved and intrinsically motivated to take an active or even primary role in the care of their children.[9] But despite the variability among men and across time, the general underrepresentation of men in caregiving roles is undeniable. There is no region in the world where even paid care jobs are filled more by men than by women, or where young men expect to do more childcare than women.[10]

In the analysis presented here, we draw from, extend, and integrate social psychological theory and evidence for how gender stereotypes constrain men’s interest in care. These stereotypes are culturally shared beliefs about gender that shape how people perceive both others and themselves. Although gender identity and expression are not binary, the stereotypes we have about gender are linked to split-second binary categorizations of people as women or men.[11] Even children who self-identify as transgender or gender nonbinary automatically categorize people, animals, and even inanimate objects into binary gender categories.[12] The ease with which we see the world through a gendered lens from a young age leads people to assume that gender is an important component of one’s own and others’ identity. Starting from this assumption that people see and express their identity in terms of (typically binary conceptions of) gender, we next consider a series of sociocultural barriers to men’s equal engagement in care.

The first barrier to men caring is the prevalence of cultural stereotypes of men as being less care-oriented than women. Gender stereotypes can include both explicitly endorsed beliefs (“women are more caring people”) and implicit associations (“think *care*, think *woman*”) that can be automatically activated to shape judgment and behavior.[13] In fact, the strongest stereotypes that people hold about gender include the explicit belief that men are less caring and compassionate than are women. In 2018, three-fourths of American adults in large public surveys reported believing that women are more communal and caring than men. This stereotype is not weakening; the percentage of people agreeing with it has actually increased over five decades surveyed.[14] By way of contrast, less than 10 percent of Americans in 2018 believed that women are less competent or intelligent than men. Gender stereotypes about women’s intellectual inferiority, once used to explain and justify constraints on women’s educational and employment opportunities, have sharply declined over the last century. Nevertheless, many people still endorse without compunction the belief that men are less communal than are women, a stereotype that has only increased over time.

These stereotypes partly reflect the different roles that people see men and women do.[15] Given the evidence that women remain more likely to be the primary caretakers at home, it is not surprising that people develop a strong association between women and "home" in contrast to men and "work."[16] From a young age, children ingest a steady diet of cultural representations that associate the concept of "female" more than "male" with care and concern for others. Such exposure can come from direct experience of who cares for them at home or school as well as from indirect portrayals of care in the books and media they consume.[17] For example, text analyses of parent-child conversations, books, and entertainment media reveal that male (versus female) pronouns and characters are less likely to appear alongside words about home (versus work).[18]

Gendered conceptions of care might begin as descriptive observations of what men and women do, but people also use stereotypes to justify the status quo.[19] In a world where 86 percent of nurses are women and 86 percent of engineers are men, people make an inference that women must be more caring and people-oriented and men must be more mechanically minded and systems-oriented. This tendency to assume that women and men *are* what we often see them *do* is an example of a broader phenomenon known as the "fundamental attribution error," because it reveals a blind spot for the external constraints on people's actions and choices.[20] Yet these collective beliefs in the essential differences between men and women become themselves an external constraint on behavior, justifying men's underrepresentation in caregiving roles. People do not merely believe that nursing *is* an occupation made up mostly of women, but that nursing *should be* an occupation made up mostly of women.

Do women care more because they are fundamentally better at caring for other people? Some evolutionary views on caregiving might suggest that among humans and other related species, sexual selection and its accompanying patterns of mate preferences would have favored the development of caregiving as a female rather than a male attribute.[21] After all, individuals with uteruses are needed to gestate offspring, and the assumption is often made that childrearing among our evolutionary ancestors was primarily the work of mothers. In recent years, however, scholars have begun to question whether sex differentiated gender roles were really as distinct as has often been assumed.[22] Even granting that certain sex differences exist, recent evolutionary perspectives theorize that a parental care motivational system is a human universal that underlies broader capacities for protective and nurturing inclinations.[23] We suggest that men and women have this same motivational system, but it is a system that is more easily activated for women than for men.

The second barrier to men's equal engagement in care might have more to do with gender differences in the motivation, not basic ability, to care. Research on sex or gender differences in basic socioemotional skills such as empathy or empathizing provides little evidence for innate differences in these fundamental capacities related to caregiving. Infants as young as two months of age prefer those who are helpful, and toddlers in their second year of life spontaneously help those who are in need, with no notable sex differences having been reported or found in these early forms of care.[24] In older samples, the ability to empathize with others is often assessed by measuring the accuracy with which one can identify another person's emotional state based only on their eyes.[25] Although men sometimes underperform women on such tasks, these gender differences are small and highly variable by context.[26] Neuroimaging studies report no sex or gender differences in neural activation while empathizing with others in pain.[27] The ability to show care and a concern for others in need is a basic human tendency.

Research has consistently revealed that women are more motivated than men to deploy empathetic responding. For example, men are less likely to describe themselves as empathetic or engage in empathetic responding when gender is made salient.[28] And even though small gender differences have been observed in the seemingly objective ability to accurately guess what emotion another person is expressing on their face, financial incentives for accuracy can eliminate this gender difference in empathetic accuracy.[29] If there are slight gender differences in empathetic abilities (along with other abilities that might provide a basic capacity for caregiving), some of these differences might reflect diverging motivations rather than sex-linked abilities. Notably, the magnitude of gender gaps in empathy are not large enough to explain the gender differences observed in caregiving roles and interest.

A third barrier to men's involvement in care is that these gender differences in motivation are socialized early and in a way that places care in opposition to masculinity. As young children develop their sense of self, gender stereotypes prevalent in society are internalized and inform children's view of who they are and what they value. As these internalized beliefs become key aspects of identity, they also constrain what boys and girls imagine for themselves and their future. For example, our research has found that by age six, boys are less likely than girls to say that they care about being nice and kind, and are more likely than girls to say they care about being the best and winning.[30] These internalized values for prioritizing their own interests over others predict how children anticipate prioritizing their future career over their future family as an adult. As young adults, men's lower tendency to value communal qualities partly explains their lower interest in taking on caregiving roles both at home and in the workforce.[31]

In some ways, stereotypes place stronger constraints on boys than they do on girls. Social psychologists describe masculinity as uniquely precarious, a coveted status that can be easily lost if a man exhibits any signs of weakness or femininity. This precariousness of manhood motivates boys and men to conform to what is believed to be masculine behavior, or risk public humiliation or social devaluation.[32] These strong proscriptions against signs of weakness in men appear to be culturally universal.[33] As a result, boys and men can expect to encounter negative attitudes and possible harassment if they exhibit an interest in activities, roles, or occupations that are typically preferred by girls or women.[34] As such, gender role stereotypes that associate care with women represent a powerful barrier to boys' and men's engagement in care activities because such engagement can threaten their gender identity.

Notably, those boys and men who associate care and communion more strongly with women are less inclined to describe themselves as kind and caring. Our research reveals that preschool-aged boys do not yet have a strong stereotype that associates care more with girls than with boys.[35] Once in grade school, however, boys show more gendered associations with care that predict describing themselves as less caring. This tendency to distance themselves from care guides their preferences: boys with more gendered notions of care are less interested in playing a care-oriented video game. Such evidence suggests that boys unlearn the ability to be caring as they are socialized to personally devalue activities and preferences that seem at odds with being a man. Parents play a role in this process. For example, sociological analyses suggest that in recent years, fathers have become even more likely to pass on male-stereotypical occupations to their sons. Mothers, in contrast, have remained gender-neutral in how the stereotypicality of their own occupation relates to that of their children.[36]

Setting aside men's personal interest in taking on caregiving roles, the gender gap in communal values also has implications for the broader value and significance assigned to care. Not only do men, on average, say they personally value care and compassion less than women do, this gender difference also predicts men's tendency to assign less societal worth to care-oriented occupations than do women.[37] The seeds for men's lower interest in care are planted early and shape their broader devaluation of care-oriented roles, occupations, and activities, not just for themselves but for society more broadly.

Ironically, the socioeconomic climate of countries highly supportive of gender equality represents a fourth barrier to men's equal engagement in care. Not only are gender gaps in care interest not closing alongside other indicators of gender equality, we have documented evidence that these gaps are paradoxically larger in cultures ranking higher on measures of gender equality.[38] This paradox of progress means that even as women gain greater economic independence and political freedoms (a decrease in vertical gender segregation as women gain greater status and influence), they are increasingly segregated into more care-oriented careers (an increase in horizontal gender segregation between men and women into different occupational spheres). Scholars continue to debate the explanation for such paradoxical patterns of gender segregation, but we do not believe they are simply driven by women's free choices. Instead, economic factors create realistic incentives for women (more than men) to fill these care-oriented roles. Alongside these economic forces are sociocultural factors that provide a series of less visible constraints on people's opportunities and preferences.

To further elucidate the role of economic affordances, note that countries higher in economic wealth and development invest greater resources in maintaining publicly funded health and educational systems. As a result, there is more demand for people to enter the care economy and be willing and able to work for lower pay. This might be why those countries where care occupations make up a larger portion of the labor force show the largest gender gap in the care economy.[39] Moreover, postindustrial labor markets promote hierarchically structured organizations and businesses with a large service sector that thrives on highly specialized and gender-segregated positions.[40] In many wealthy countries, training for different occupational roles begins at an early age, locking adolescents and young adults into an occupational track before their own interests might be fully developed.[41] These structural forces promote more occupational role differentiation, but they do not fully explain why it would be gendered.

Complementing these realistic forces from economic demand, wealthier countries with a focus on organizational hierarchy and Western ideals of self-reliance have been shifting over time toward greater support for a cultural ideology of individualism over collective harmony and interdependence.[42] These cultural shifts toward valuing individual agency over collective harmony promote a more gendered view of care and communion. In fact, the stereotypical association of care and compassion with women more than men varies across cultural contexts. Care is considered a more feminine characteristic in individualist societies, whereas being caring and helpful are less gendered in highly collectivistic countries.[43] Perhaps as a result, in wealthy countries that often promote women's entry into male-dominated roles, gender differences in prosocial orientation are the largest, with men describing themselves as less communal, less trusting of others, and less altruistic than women.[44] These gender gaps are narrower in more collectivist societies that value group harmony and a view of the self as interdependent with others. Together, such evidence suggests that as countries develop a postindustrial economic structure and prefer ideologies of individualism over collectivism, prevailing norms of what it means to be a man inhibit men from even imagining themselves in care-oriented roles.

Although the evidence of sociocultural constraints on men's care orientation is clear, a fifth barrier to men's engagement in care roles and occupations is that people do not generally view men's underrepresentation in care work as a problem that needs to be solved. Issues of gender equality so often focus on a lack of opportunity for women that societal constraints on men's behavior are typically overlooked and underappreciated.[45] People are more willing to support interventions to reduce discrimination than to increase interest. For example, people support efforts to increase women's representation in male-dominated STEM fields because they believe that barriers continue to block women's entry.[46] In contrast, people are generally less supportive of proactive efforts to increase men's representation in care-oriented occupations because they assume men are inherently less interested in these careers.

On the one hand, men's lower interest might partly be traced to the lower salaries and status these roles tend to have. But as mentioned earlier, the lower status given to care roles reflects the fact that women are so often in these roles, making these salary differences more of a symptom than a cause. In one experiment, we tested whether higher salaries would motivate people's support for increasing men's underrepresentation in occupations dominated by women.[47] We manipulated whether the same (not explicitly care-oriented) career was portrayed as being occupied by mostly men or mostly women, independent of the average salary in those careers. Even in this controlled context, people were less supportive of efforts to attract men into careers dominated by women than to attract women into careers dominated by men. Not only was this effect not reduced by increasing the salary of the career, but it was especially pronounced in careers portrayed as earning a higher salary. Such effects reveal the biased tendency to devalue the utility of domains that are strongly associated with women, a group with lower status in society.[48] The lower status given to care-oriented roles further serves to maintain gender imbalances in these roles.

Why care that men don't care? There are several reasons why men and the rest of us should be concerned by men's lower orientation toward care. First, men themselves benefit from having an orientation toward caregiving. A meta-analysis of one hundred studies revealed that among both men and women, the motivation to care for others is related to a host of positive outcomes for oneself and one's relationships.[49] Increasing men's care orientation might also have broader implications for developing greater socioemotional skills. The constraints on men's willingness to express their own emotions, as well as relate to others on an emotional level, might have implications for men's mental health and social well-being.[50] Furthermore, cultural norms to conform to a constrained idea of masculinity have been linked to risky health behaviors that might lower men's life expectancy.[51]

Beyond the benefits to men themselves, encouraging men's active care involvement could also help to meet pressing labor shortages in paid care work. In 2023, the International Council of Nurses declared that the global shortage of nurses constitutes a worldwide health emergency.[52] Similarly, UNESCO has warned of a teacher shortage hitting all parts of the world.[53] It is no coincidence that those careers that are the most gendered, and thus seem like options to only half of the available labor force, often show large labor shortages.[54] As countries pour investments into health, education, and other services and public resources in the care economy, workers are needed to fill these roles. One obvious way to meet these labor shortages is to attract more men into these jobs.

Increasing men's interest in caregiving at home and in the workplace might also indirectly benefit women and gender equality more broadly. The stalled gender revolution has been traced not just to a ceiling among women's interest in entering the workforce, but also to a rise in men's focus on overwork in recent decades.[55] For working mothers in heterosexual relationships, their ability to lean into ambitious roles in the workplace is constrained by men's willingness to lean into caregiving roles at home.[56] In addition, active engagement of fathers in their children's lives has positive benefits for their children that are unique from maternal care and also benefit their marriages.[57] However, these countervailing effects might not be limited to the family sphere. In the workplace, men stepping into more service-oriented positions can free up women who more often take on these roles.[58]

Given the clear benefits of increasing men's orientation toward care, what, if anything, can be done to counter the sociocultural barriers we have described? Broadly speaking, efforts here could focus on increasing societies' investments in gender equality in care, targeting societal stereotypes about care as a women's domain, or directly fostering motivation for and identification with communal activities and roles. Given the early development of gender roles, interventions might especially aim to counter boys' early unlearning of care and efforts to redefine care roles and occupations to enhance boys' attraction to those roles.[59] In what follows, we offer a few suggestions based on our theoretical analysis.

One approach to fostering greater gender balance in care would be to target the fundamental tendency to assume that caring is inherently feminine. In fact, evidence suggests that men underestimate how communal other men truly are or want to be, an example of a broader tendency known as "pluralistic ignorance."[60] When groups of people are pluralistically ignorant of what other people truly think or do, their conformity to this misperceived social norm can artificially constrain their behavior. If men's misperception of other men's true communal motivations inhibits them from openly exhibiting forms of care, this type of pluralistic ignorance can be counteracted by promoting care as a fundamentally human tendency that is not essentially tied to sex or gender. Just as women trailblazers in STEM fields and leadership positions have been important role models to young girls and women, high-profile examples of men in caregiving roles can begin to reshape these stereotyped beliefs. Efforts on the part of men to broaden definitions of masculinity could be especially helpful. For example, broadening examples of men who choose to and excel at care work in real life, media, and books can challenge traditional notions of masculinity. Alongside efforts to broaden our conceptions of masculinity could be efforts to rebrand caregiving roles in ways that are more inclusive of men, but this approach often represents a shorter-term solution.[61]

A second approach to fostering greater gender balance in care includes efforts to increase young boys' and men's motivation for care. Early educational initiatives to foster socioemotional education can be helpful. For example, initiatives like the Roots of Empathy program promote empathy in young school-aged children by giving them direct training in understanding and caring for the needs of infants.[62] Such training has been found to be equally beneficial for young boys and girls, with overall improvements to children's social behavior. For many boys and men, practicing the skill of care often starts at home where the intrinsic rewards of caring for close family can be readily apparent. In studies of sibling care, for example, although girls are more likely to be observed caring for younger siblings, there is cross-cultural variation in boys' level of involvement in sibling care, especially with younger brothers.[63] Such training can prepare young boys for future roles as caregivers. In adult heterosexual relationships, women are also increasingly valuing partners who will be active caregivers in their future families.[64] One question that remains, however: how can we transfer the motivation to care for close family more broadly to an interest in caregiving outside the home?

Whereas the two approaches above focus on tackling individual conceptions of gender and the personal motivation for care, these need to be complemented by societal investments into the gender equality of care. We must promote men's representation in care with the same amount of effort that we have put into promoting women's representation in STEM or positions of leadership. Such efforts are likely to be met with some degree of backlash.[65] However, understanding how sociocultural factors constrain men's and women's sense of the possible can provide a roadmap of the obstacles to be faced. Equally important, once achieved, gains in men's representation in care could become self-perpetuating. When people see a critical mass of men engaged in care-oriented roles, it will change their beliefs about how caring men can be.

We have advocated for taking a sociocultural psychological perspective on the science of caregiving and men's underrepresentation in the care economy. We can only meet the growing demand for high-quality care work by identifying and addressing key constraints to men's interest and involvement in these roles. And yet we face several unique barriers to increasing men's active engagement in care. These include prevalent cultural stereotypes that men are inherently less caring, despite little evidence for gender differences in the capacity for care. Rather, men are socialized from a young age to devalue care as an activity that is at odds with being a man. These gendered beliefs about care are especially entrenched in wealthy, individualistic societies. Perhaps as a result, people seem relatively uninterested in working to combat the gender gap in care. Given the myriad benefits of promoting a more gender-balanced care economy, elucidating the reasons why women care more than men can motivate new ways of understanding and counteracting the persistent barriers to gender equality and a more caring society.

ABOUT THE AUTHORS

Toni Schmader is Professor of Psychology and the Head of the Department of Psychology at the University of British Columbia. She is also the Director of the Engendering Success in STEM Consortium. She is the author of *Interactive Psychology: People in Perspective* (with James J. Gross, Bridgette Martin Hard, and Adam K. Anderson, 2023) and *Social Psychology: The Science of Everyday Life* (with Jeff Greenberg, Jamie Arndt, and Mark Landau, 2021), and editor of *Stereotype Threat: Theory, Process, and Application* (with Michael Inzlicht, 2012).

Katharina Block is Assistant Professor of Social and Behavioral Sciences in Psychology at the University of Amsterdam. She has published in such journals as *Personality and Social Psychology Review*, *Psychological Science*, and *Frontiers in Psychology*.

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The Human Geography of Care

Claire M. Growney, Caitlin Zaloom
& Laura L. Carstensen

The exponential increase in life expectancy in the twentieth century, coupled with a significant drop in fertility in the twenty-first century, demands rethinking family-based care for older people who require assistance with activities of daily living. We argue that age diversity in the population and a trend toward urbanization represent two emerging resources on which new care models can be built. By distributing care among age-diverse groups of kin and non-kin who live in close geographical proximity, demands on individuals can be minimized and social exchanges across generations can build social bonds. In this essay, we discuss features of cities and social infrastructures that can contribute to distributed models of community-based care and provide examples of ongoing efforts that can be scaled nationally and internationally.

Throughout human history, populations have included far more children and young adults than older people. As recently as 1900, only 4 percent of the U.S. population was over sixty-five years of age. Then, in a matter of decades, life expectancy increased by thirty years, and fertility dropped by 50 percent. Populations that once resembled pyramids are being reshaped into rectangles. The implications are far-reaching and will affect virtually every aspect of life as we know it.

The same demographic changes are reflected in the shape of American families, which are evolving from "horizontal" shapes with many siblings and cousins to "vertical" shapes with fewer siblings and cousins and more grandparents, great-grandparents, great-aunts, and great-uncles. Families that *routinely* include grandparents and great-grandparents are appearing for the first time in human history. In 1900, 6 percent of ten-year-olds had a full set of living grandparents. By 2000, 40 percent of ten-year-olds had a full set of living grandparents, a figure that continues to increase.[1] Although declining fertility decreases the odds of being a grandparent, those who are grandparents are living to see their grandchildren reach adulthood.

Because the fertility rate in the United States is now well below replacement level at 1.6 (children per woman), the total number of kin is also declining. The

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average sixty-five-year-old in 1950 had seven grandchildren. Today, the average is three. In 1950, the average sixty-five-year-old had twenty-five family members (including all living ascendents, descendants, aunts, uncles, nieces, nephews, siblings, and cousins). By the end of the century, the average sixty-five-year-old is projected to have sixteen family members.[2]

In addition to family structure, social norms and expectations about family are changing. In the 1970s, by the time adults reached their mid-thirties, they were married and had at least one child. Americans of the same age today are more likely to be single and live with their parents. About one-third of young adults today are opting out of marriage, which is roughly twice the number in 1970.[3] More women are choosing not to have children, and those who do have children are having them at older ages.[4] Although postponement of childbearing is most evident in relatively affluent women, similar trends are observed across the socioeconomic spectrum.[5] About 16 percent of today's older adults are childless.[6] This figure will increase as parenthood continues to grow less common. A recent Pew survey found that 42 percent of respondents aged eighteen to forty-nine did not have children, and while some will likely become parents at some point in the future, almost half reported that it was unlikely they would ever have children.[7] Divorce and separation also contribute to changing family structures and the strength of family ties. In the United States, about half of all marriages end in divorce or separation within twenty years, further complicating perceived obligations to care for older family members.[8]

Households are getting smaller. In 1950, the average U.S. household included four people, typically a married couple and their offspring.[9] Today, the modal household size is two, and soon, the mode will be one, as households led by people over eighty years old double over the next twenty years.

The growing mismatch between caregiving needs and available resources means that family-based models of care for older disabled relatives are becoming infeasible. The numbers simply do not work. Moreover, the family-based system of care, premised on the unpaid labor of (mostly) female relatives, is already ill-suited to the needs of older people and the capacity of their loved ones to provide support.

Family-based care in the United States can be traced back to its founding. Family farms were the economic unit of production and social centers of life.[10] Every member of the family contributed to the effort. By middle childhood, children worked alongside adults in fields, and eventually those children aged into heads of households and inherited the farms. In addition, women were tasked with household responsibilities that included caring for family members who were too young, too sick, or too old to contribute productively. Births and deaths both occurred at home. Acute diseases, namely influenza and foodborne illnesses, were the top causes of death. Child mortality was high and the duration of illness before death was short. Although multiple generations resided together when needs demanded it, life expectancy limited the number of households that included three or more generations.[11] As recently as 1900, fewer than 10 percent of households at any point in time included members older than sixty-five.

Today, the family remains the primary source of emotional and physical care for its members, and female relatives are the most likely caregivers for older disabled members. Yet times and tasks have changed. More often than not, older relatives live on their own, and geographic dispersion means that care is often provided over considerable distances, complicating the logistics of care. Most working-aged American women are employed outside of the home; most households require two salaries to make ends meet. Many women who are caring for older relatives are also caring for young children. In addition to structural differences in circumstances, periods of disability now extend for months and often years before death; nearly one-quarter of caregivers provide care for more than five years.[12] More than three-quarters of caregivers report having out-of-pocket costs related to providing care, and nearly one-third report drawing on their own savings to pay for expenses.[13] Caregiving can take a toll on physical and emotional well-being. One in five caregivers report high levels of physical strain, and two in five report high levels of emotional stress associated with caregiving. The strain ultimately contributes to increased mortality risk.[14] It is not only care*givers* who suffer. Older relatives who receive care from family members often report feeling like they are a burden, adding guilt and shame to the emotional complexity of caregiving relationships.[15] Of course, family caregiving is often far from idyllic, with a significant minority of older people suffering physical and financial abuse at the hands of younger relatives [16]

Finally, systems of care can be greatly improved by identifying specific needs and tailoring support to those needs. More than one-third of Americans over sixty years old have at least one functional limitation and close to 60 percent of people over eighty-five years of age (the fastest growing age segment in the population) need assistance of some kind.[17] But the type and degree of need are highly varied. Dementia and other serious chronic conditions likely require round-the-clock care. However, more common limitations, such as managing medications or lifting heavy grocery bags, are relatively modest but may be required for decades.

Because more people are living longer in communities that are unprepared to meet their needs, models of care must be improved. It is time for the social contract to change, and to take proactive steps to build models that are less demanding on individuals and do not strain social networks and important relationships. Although the transition from models of care based on blood ties to more differentiated models will be challenging, we can and must do better, or the vulnerability of disabled older people will increase.

Formalizing and remunerating elder care would cost hundreds of billions of dollars.[18] More important, purely economic calculations do not adequately account for work based on love.[19] Most caregivers *want* to help their loved ones. Many say that they would not want to be paid for helping members of their own families. A Pew survey in 2014 found that while one-third of caregivers described it as stressful, 88 percent also described it as rewarding.[20] Caregiving can be an empowering experience, and many informal carers report gaining helpful new perspectives on life and knowledge about health care.[21] Giving promotes happiness.[22]

By nature, humans care for people they know. Even before young children can speak, they show a proclivity to help others. Through consistent and responsive caregiving interactions, the cared and the cared-for form attachments that are the basis for healthy relationships and well-being. In *The Philosophical Baby*, Alison Gopnik writes, “It’s not so much that we care for children because we love them, as that we love them because we care for them.”[23] Survival of the species requires strong attachments to others. In this sense, the propensity to care was selected by evolution.

Long before humans understood kinship, we were drawn to people near us. Presumably, the reliable preference for familiar people and places is rooted in evolution. Referred to as the “mere exposure” effect, proximity breeds liking in humans.[24] In daily life, familiarity with others increases the likelihood that we form strong bonds and friendships. In fact, close friendships are better predicted by proximity than by political affiliations or personality.[25] Seeing people on a regular basis contributes to affection and increases the odds of forming strong bonds. Even when social ties are weak, familiar faces give us a sense of feeling at home.

A sense of belonging, purpose, and worth are fundamental elements of human well-being, yet today, most Americans don’t know their neighbors.[26] The U.S. Surgeon General declared a loneliness epidemic in the country. Although loneliness is common at all ages in adulthood, it is lowest in older people and highest in young adults.

Thus, people show strong proclivities to care for others, especially loved ones. However, the current system is too taxing and demographic trends stand to reduce resources further. We need a system that allows more people to participate in caring work while enhancing or at least preserving quality of life. In combination, urban dwelling and age diversity in the population present an unprecedented opportunity to rethink and improve the provision of care throughout life.

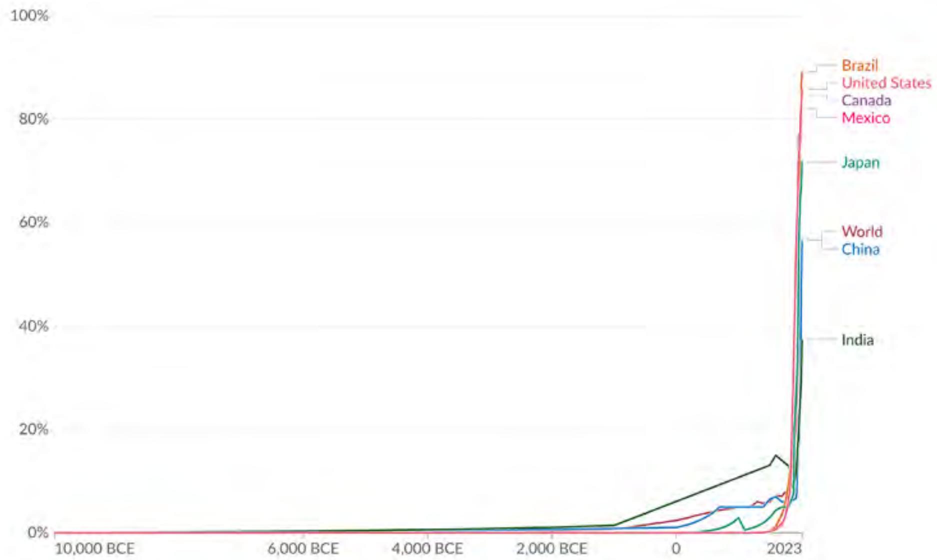
The increase in life expectancy occurred at the same time the population began to migrate from farms to urban areas. Across the twentieth century especially, young people began to seek economic opportunities in cities. The trend continues. Population density in urban areas in the United States grew by 9 percent from 2010 to 2020.[27] By 2030, the majority of people worldwide will live in cities.[28] By 2050, nearly seven in ten people will be city-dwelling.[29] On a global scale, demographers expect that cities comprising more than ten million people, known as "mega cities" (such as Los Angeles and New York City), will become common. To quote science writer Michael Gross, "The city is now the main habitat of Homo sapiens" (see Figure 1).[30]

Aging in cities confers many advantages over aging in rural areas. Cities typically have infrastructures that afford accessible transportation, health care services, and greater opportunities for social engagement. New York City – considered one of the best cities for aging in the United States – has adopted the concept of the fifteen-minute city, in which basic necessities are available within a fifteen-minute walk or bike ride in all neighborhoods.[31] The fifteen-minute model promises to support people and benefit the environment.[32] In mega cities such as New York, neighborhoods also create a sense of belonging and community.

Neighborhood connectedness and well-being are intertwined. Although we are increasingly likely to live alone, living in close proximity can capitalize on the human tendency to form bonds. We propose familiarity and proximity can strengthen bonds within communities, increasing the likelihood that neighbors care about neighbors and, subsequently, are more likely to help when needed. Throughout most of human history, family members have lived nearby, but due to the shifts in fertility and life expectancy mentioned above, family members will not be available. Close neighborhood ties can facilitate "voluntary families" or "fictive kin" when people interact with one another.[33] Groups of friends are already choosing to live together and step up when someone requires care.[34] There is some evidence that voluntary connections benefit psychological well-being even more than family ties.[35] Because caregiving among friends is not often viewed as obligatory, it is sometimes appreciated more and contributes to the deepening of relationships.[36] Social exchanges among people who are providing and receiving care strengthen bonds and allow a more even distribution of power in relationships. Because caregiving takes time and entails exposure to people, caring for neighbors may further enhance community engagement, civic participation, and relational bonds. Social cohesion is associated with physical health and well-being among neighbors.[37]

A second emerging resource is age diversity. The relatively even distribution of age in the population generates unprecedented age diversity that includes the physical strength, speed, and ambition of youth along with the emotional balance, experience, and prosociality associated with age. Never before has the population included comparable numbers of children and adults. There are great opportunities for intergenerational exchange to occur, and because younger and older people often have complementary strengths, they are well suited

Figure 1
Share of the Population Living in Urbanized Areas, 10,000 BCE to 2023



Source: Hannah Ritchie, Veronika Samborska, and Max Roser, "Urbanization," Our World in Data, last modified February 1, 2024, https://OurWorldInData.org/urbanization.

to help one another. For example, young people, who have a lower likelihood of functional impairment than their older counterparts, can be of great help to older adults needing assistance with physical tasks.[38] Even young children can play roles in helping with simple chores. Older people can play supportive roles as well, since they tend to have increased emotional stability, better emotion regulation, and greater expertise in handling personal conflicts and navigating challenging social situations compared with younger people.[39]

Advantages widely observed at older ages align with important developmental milestones in early childhood. The acquisition of communication and social-emotional skills early in life are essential for healthy maturation. Some experts argue similar complementarities have been observed throughout human history.[40] An extended period of life post menopause freed older women to care for grandchildren. Referred to as the grandmother hypothesis, these cooperative and caring proclivities likely contributed to the human capacity to exchange knowledge in ways that accelerated human evolution.[41] In hunter-gatherer societies, for example, the presence of experienced older community members improves the productivity of younger members.[42] In industrial societies, older adults continue to play important roles in the transmission of cultural knowledge and skills.[43]

In neighborhood contexts, older adults are often quite involved in different aspects of community life. Compared with younger adults, older adults tend to know more of their neighbors and feel greater attachment to neighborhood communities.[44] Older people also socialize more with neighbors and participate at higher rates in community activities.[45] Older adults often play the role of "eyes on the street," looking out for the safety of other neighbors.[46] When given helping roles in society, older adults can contribute to the emotional balance or atmosphere of the community, as well as the physical safety.

In general, those in more age-integrated neighborhoods seem to experience benefits: residents of neighborhoods that well represent the age diversity of the United States have higher generativity and feelings of solidarity, connectedness, and support, referred to as social cohesion.[47] This in turn leads to better physical health and psychological well-being.[48] It is possible that the diversity of age will be reflected in the types of care that community members display for one another. Notably, age diversity in the absence of social cohesion and generativity does not seem to convey benefits. Nonfamilial intergenerational exchanges of care within communities may not replace the care provided within families but it could reduce strains and provide benefits.

We see great potential in the role that city living and age diversity can bring to care work, while remaining skeptical it will happen without thoughtful planning and environmental design. It is essential that physical and social barriers are reduced. Arguably more than any other change, we must reduce age segregation. Despite increasing age diversity in the population and within households, most people continue to live their lives in largely age-segregated worlds. Institutional structures such as schools tend to group individuals by age, contributing to age-homogeneous social networks. Residential areas within the United States are also age-segregated, often overrepresenting families or young adults. Within neighborhood communities, gathering spaces are often designed to meet the needs of one age group, such as playgrounds for children or health services for older people. Lack of exposure to those of different ages increases the likelihood of ageism, and reduces the likelihood of intergenerational care relationships forming. Another challenge is presented by social norms to isolate from one another, with neighbors tending to keep to themselves. It would be naive to think that care relationships will occur simply due to proximity. In fact, only 24 percent of urbanites report knowing all or most of their neighbors.[49] About one-quarter of young adults report not knowing even one neighbor. Finally, ethnic diversity in the United States adds another layer of complexity to demographic trends that is unsettling many Americans. And because ethnic diversity within generations has been increasing over time, older Americans today are largely white and younger generations increasingly are ethnically diverse (see Figure 2).[50] Many questions remain unanswered: How will intergenerational tensions evolve as ethnic diversity continues to increase in America? How will young cohorts of Hispanics feel about supporting federal and state programs that assist mostly older non-Hispanic whites?

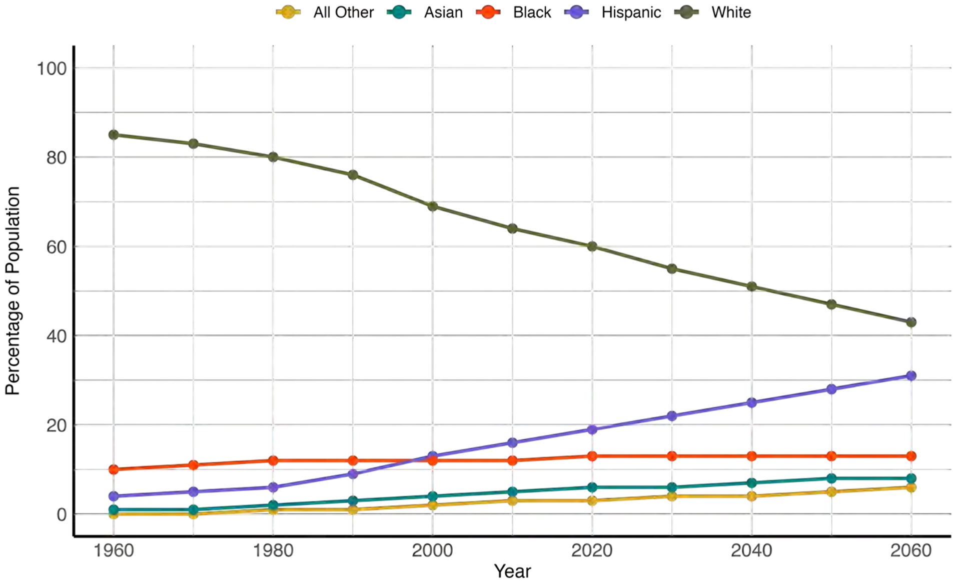
Creating new models of care will require that communities and customs are designed to facilitate intergenerational interactions. If cultures of care are adopted in some locations but not others, inequalities may be exacerbated. Thus, it is crucial that policies, infrastructures, and built environments be developed to facilitate care exchanges.

Where we live matters for health and well-being. Surveys reliably find that the vast majority of older people say that they want to age in their own homes and neighborhoods. Many older people, often widows, find themselves living alone in large homes that reflected family needs in earlier times yet gradually came to exceed their needs and their capacity to care for the property. Most rural areas and many suburbs also lack public transportation, which makes driving essential for running errands and socializing with friends. When driving is no longer possible, social isolation is likely. Adult children and social workers often agonize about decisions that fail to prioritize health and safety. However, relocations are challenging under the best circumstances, and because decisions are always made in temporal contexts, the perceived payoff may be too small. Steven Golant, a human geographer, argues older people make rational decisions about staying or leaving by weighing the unappealing costs of relocation, such as the time it takes to settle into new surroundings, against living in meaningful and familiar places.[51] Emotional meaning often wins when the options pit attachments to people and places against (even serious) safety risks.

There are enormous opportunities for architects and city planners to design cities to support health, well-being, and the capacity to age in place. Research shows that health within a city fluctuates by neighborhood independent of socioeconomic status. Death rates in geographically proximal neighborhoods varied substantially during the tragic Chicago heat wave of 1995, raising questions about which features of neighborhoods matter most.[52]

Cities offer opportunities to build effective infrastructures that promote meaningful social interactions and strengthen community ties. In the United States, cities already provide far more formal services than rural communities. The average distance to a hospital is four miles in urban areas and over ten miles in rural areas. Well-maintained and accessible infrastructures and public transportation are key to ensuring that residents can provide and receive care. Equally important is access to vibrant and inclusive community spaces that create op-

Figure 2
Changing Face of America: Percent of U.S. Total Population by Race and Ethnicity (1960–2060)



Source: Paul Taylor, "The Next America," Pew Research Center, April 10, 2014, https://www.pewresearch.org/social-trends/2014/04/10/next-america/?tabId=625b7b9a-c44e-4e63-a534-a18a57b73429.

portunities to form social ties. Urban planning models often overlook aspects of successful societies that do not entail clear spatial needs. In new models, space could be designed to encourage social participation, respect, and inclusion. Public spaces must be accessible to all ages, and afford people equal rights to a "share" of urban space. The built environment of cities would be greatly improved if they allowed for opportunities to connect in gathering places that are not age-segregated, with parks and recreation centers that encourage everyone's participation. Providing opportunities for engagement in healthy activities and social connection may reduce the need for more intensive care in old age and help form bonds with others who are physically close and can exchange care. We argue that successful transitions to models of care built on larger caring networks will rest largely on neighborhood and social cohesion, which will be influenced greatly by the physical structure of homes, buildings, and gathering places that create social ties and feelings of "home."

Real estate developers are beginning to design homes and communities with longevity in mind. By default, homes built in the 1950s included four bedrooms. Even if a family didn't have children, resale demanded such accommodations. Going forward, single-floor accessibility, wide corridors, bathrooms with handrails, and buildings with elevators will be included in all new structures. Homes that can accommodate three generations, that have shared spaces, and that allow for privacy will be important, as will designated onsite caregiver spaces.

There has been a strong focus on the potential for technological advancements to play roles in retrofitting suburbia, allowing for the redesign and revitalization of existing structures and areas to better serve the needs of contemporary society. Less attention has been paid to how to design home interiors. Design features of homes play an important role in ensuring the feasibility of care exchanges, the potential for people to age in place, and the promotion of residential mastery – feelings of competence and self-efficacy in one's living environment.[53] Advances in transformative artificial intelligence will generate solutions that enable independent living and robotic assistance that will alleviate physically burdensome caregiving. Smart home automation systems, sensors for fall detection and prevention, and robotic devices and automated exoskeletons (devices worn to detect and assist with movement) are among the technological innovations that will aid those aging in place. Together, structural redesigns and technologies hold promise for adapting existing single-family housing to better accommodate aging adults, allowing them to remain in their homes longer. Incorporating technologies into home environments will greatly alter caregiving dynamics, allowing for those receiving care to maintain autonomy and dignity without the help of human carers for many tasks. Human care can instead focus on the promotion of social and emotional well-being. This lessening of the physical labor of caregiving and increasing of the social labor of caregiving will also change the characteristics of who can be an effective carer, better enabling older adults with physical limitations to care for one another in emotionally gratifying ways that provide a sense of purpose. Ultimately, rather than lessening the need for care, technology in home interiors will increase the opportunities for providing care that comes with a deeper sense of connection and quality of life.

Ideally, homes will be able to convert to individual needs, accommodating young families at one life stage and adapting to their needs as they age. The need to transition to different homes will not be erased, however. Cities will include various housing options within communities, much like eldercare facilities now offer a "continuum of care," allowing for smooth transitions across stages of life. More diversity of homes within an area can promote age diversity among residents. For example, older adults often choose to downsize after adult children leave the family home. An optimally designed neighborhood would have an appropriate home ready and waiting so people can move nearby and retain existing social ties. It will be advantageous for neighborhood communities to have various housing options in the same vicinity so when needs change and people downsize, they may stay in the same neighborhoods and retain their social connections. Care exchanges will be more likely with these familiar ties.

Multiunit housing is one way for urban development to accommodate older adults' downsizing and the potential need for homes with technological support for future physical care needs. In some cases, this entails constructing apartment buildings in the suburbs, a proposition that has been met with resistance and largely unjustified concerns about lowered property values, traffic, and parking issues.[54] Many suburbs have zoning clauses that exclude buildings designed with smaller housing units, meaning that current policies may not allow for the construction of apartments that are well suited to meet the needs of older adults in their current neighborhoods. As the need to house the aging population continues to expand, there is also a need to reconsider and amend zoning laws to permit the construction of multiunit housing in suburban areas. This shift would benefit not only older adults seeking housing options that would meet their changing housing needs, but also working-class families in search of affordable homes in desirable neighborhoods. Embracing multiunit housing in suburban communities would ultimately enhance the overall quality of life for residents of all ages and backgrounds.

Revising zoning laws could also make it easier to intentionally create small communities within cities. Colocation within a dense network of people who span generations, strengths, and needs may be more reliable and effective than dependency on a single caregiver (as devoted as she may be). This can be achieved through cohousing, which refers to intentional communities that comprise private homes and communal spaces. Sometimes referred to as ecovillages, the emerging movement aims to reduce both the carbon footprint of homes and energy costs.[55] For many Americans, cohousing offers affordable home ownership. Private dwellings ensure privacy, while shared spaces and governance foster social interaction and friendships, reducing loneliness and increasing a sense of belonging. Even though cohousing was not explicitly developed to reduce age segregation, studies of cohousing communities report considerable benefits of age diversity.[56] The beauty of the concept is that cohousing communities are sufficiently small that members know and trust one another and come to function as extended families. Leftovers from meals are easily shared, shopping trips minimized. Some studies suggest that they improve health and even reduce the need to use formal health care services.[57] Older people who are available for brief periods of childcare can be enormously helpful to working parents of young children and teens needing a watchful eye. Even young children can be helpful with supervised instrumental tasks, and adolescents are well suited for physically demanding chores. In both cases, benefits to the helpers match (if not exceed) those of the person receiving help.

In the United States, cohousing communities are increasing in number.[58] At Berkeley Cohousing, established on an old farm property, residents in fifteen units share childcare responsibilities, make decisions about community practices together, and eat community meals a few times a week.[59] In Oakland, California, the Temescal Commons cohousing community consists of nine units with a shared courtyard, vegetable garden, and additional facilities.[60] Residents take turns serving as chefs and share religious and secular readings at community gatherings. In these communities, it is everyone's responsibility to care for one another.

The well-known African proverb "It takes a village to raise a child" highlights the roles communities play in rearing children. In truth, we all need a village. It is time to appreciate the interdependencies we share with others throughout our lives and to build environments that meet these fundamental needs. Urban living holds the potential to address disruptions to traditional models of care by virtue of population density, distributing care across a number of providers and complemented by formal services. This can be achieved by embracing models of cohousing and designing neighborhoods that foster access to both social connections and professional care.

Old models of caregiving are unsustainable in light of demographic and social changes concerning the nature of families. As societies adapt to longer lives, smaller family sizes, and urbanization, we need proactive adjustments that address the challenges posed by these demographic shifts. Otherwise, we risk exacerbating existing inequalities and widening gaps in access to care and support. If the demand for informal services exceeds available resources, societal well-being will be diminished.

Amidst the challenges accompanying shifting demographics lies an opportunity to provide care in better ways. Building a future in which caregiving is a shared responsibility woven into the fabric of our communities won't happen automatically, but by carefully planning cities in ways that encourage exchanges of care and promoting policy that allows for non-kin care relationships to form. Through intentional urban planning, we can create longevity-friendly environments that promote social connection, facilitate intergenerational reciprocity, and foster a culture of mutual support and reciprocal giving and receiving to help individuals as they age in place. By leveraging advancements in technology, we can empower individuals to maintain their independence and autonomy while receiving the care and support they need.

Cities are already implementing changes. In Singapore, a health district is in development, carefully designed to incorporate colocation and multigenerational housing shaped to support residents' physical, mental, and social well-being.[61] There will be clinics in each housing unit, rooftop jogging loops, meditation gardens, and childcare centers right next to the active aging center to facilitate intergenerational engagement and reduce the risk of social isolation among older adults.[62] Similarly, in Newcastle, United Kingdom, the City of Longevity initiative aims to create urban environments that support well-being at all stages of life and prevent health conditions.[63] Based on the premise that "the city must be an active and discreet partner in supporting citizens of all generations and all social and economic backgrounds to live longer and healthier lives," guidelines highlight pleasant and clean environments, green spaces, and places for people to connect with their community as key features that support flourishing at all life stages.[64]

The challenges posed by demographic shifts offer an opportunity to reimagine caregiving as a collective endeavor rooted in compassion and reciprocity. By embracing technological innovation, fostering community engagement, and advocating for inclusive policies, we can build a future in which individuals of all ages can flourish. Our efforts can pave the way for a more caring and compassionate society – one in which the proverbial village comes together to raise and support each other across generations.

ABOUT THE AUTHORS

Claire M. Growney is a New Map of Life Fellow in Intergenerational Relations at the Stanford Center on Longevity, in affiliation with the Department of Psychology at Stanford University. She has published in such journals as *The Journals of Gerontology*, *Psychology and Aging*, and *Emotion*.

Caitlin Zaloom is Professor of Social and Cultural Analysis at New York University. She is the author of *Indebted: How Families Make College Work at Any Cost* (2019) and *Out of the Pits: Traders and Technologies from Chicago to London* (2006).

Laura L. Carstensen, a Member of the American Academy since 2023, is the Fairleigh S. Dickinson Jr. Professor in Public Policy and Professor of Psychology at Stanford University, where she is Founding Director of the Stanford Center on Longevity. She is the author of *A Long Bright Future: Happiness, Health, and Financial Security in an Age of Increased Longevity* (2011).

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Technology & the Dynamics of Care for Older People

Elizabeth Fetterolf, Andrew Elder,
Margaret Levi & Ranak B. Trivedi

The United States, like many countries, faces a contradiction: a growing number of older adults need care, yet the workforce on which this care depends is underpaid, marginalized, and relegated to the bottom ranks of the health care system. In response, technology presents an appealing potential solution for worried families hoping to remotely monitor "aging in place," for care homes facing labor shortages, and for the technology companies that stand to profit. But the affordances of these technologies, the visions embedded within them, and their implications for workers, families, and older adults need specification. Drawing on the social scientific and medical literature on care, aging, and technology, this essay investigates several questions. Who is providing care, both paid and unpaid, and how does the introduction of technology into care provision affect each of the participants in the care network? What are the different types of technology that can aid care? What challenges and concerns do these technologies raise? And finally, how might we address these challenges moving forward?

Mary is eighty-six years old and lives alone.[1] Her husband died six years ago. Her cognition remains normal, but she is homebound because of mobility and balance problems and she falls frequently. She cannot prepare meals and needs physical assistance to dress and wash. Her daughter shops for her and visits daily but works full time, so a part-time paid carer supports her in the mornings.

Isaiah is eighty years old, is widowed, and lives alone. His son lives two hundred miles away. He is physically independent but has a progressive decline in cognitive capacity due to dementia. He sometimes leaves the house and cannot find his way back. He has difficulty with most household tasks, including meal preparation and domestic chores, but can still dress and wash himself. His son pays a carer to visit three times per week to provide support and supervision.

Sofia is eighty-eight years old and has advanced dementia and physical frailty. She lives in a nursing home and requires full assistance to dress and wash and

https://doi.org/10.1162/daed_a_02127

supervision to take meals. She is bilingual but now mainly speaks Spanish. Two people are needed to help transfer her from bed to chair and to wash and dress her. She recognizes carers but not family. She has urinary incontinence. She often cries out for help but is easily reassured by carers.

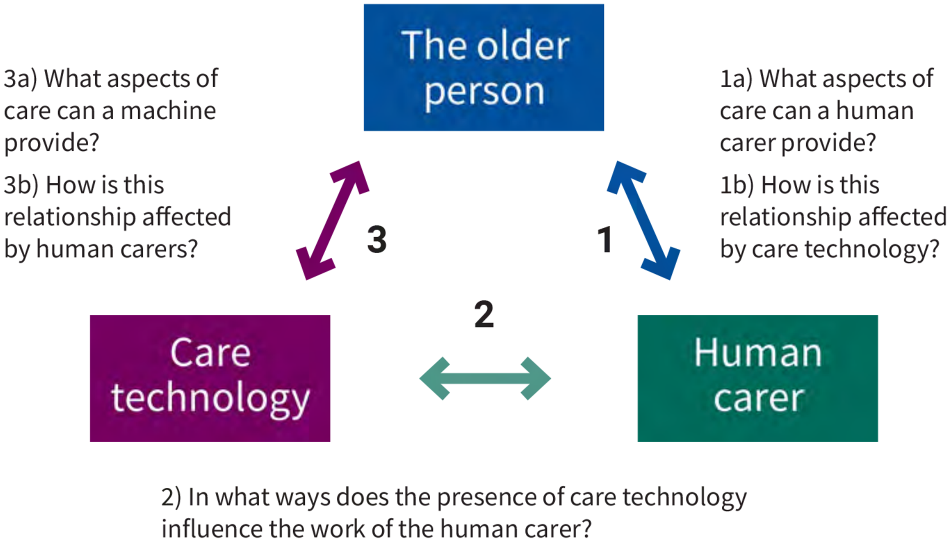
Twenty-five years from now, twenty-five million Americans like Mary, Isaiah, and Sofia will be living with frailty, a condition associated with reduced physical ability, dementia, and increased dependency. By 2050, the number of people living in the United States who are sufficiently dependent to require support in activities of daily living is expected to triple.[2] Concurrently, the birthrate is declining, thereby reducing the absolute and relative numbers of younger people in the population and increasing the relative numbers of those who are old. As a result, more older people are aging without kin to provide care: between 2010 and 2050, the number of kin is estimated to drop from seven to three per older adult.[3] The need for care is great and the homecare workforce on which this transition depends is underpaid, marginalized, and relegated to the bottom ranks of the health care system.[4] In response to this looming crisis, technology presents an appealing potential solution for worried families hoping to remotely monitor "aging in place," for care homes facing worker shortages, and for the technology companies that stand to profit.

Given the growing need for both residential and home care, technologies such as monitoring systems, care robots, and digital companions are increasingly marketed as not only a potential form of worker augmentation but also worker replacement.[5] As sociologist Allison Pugh notes, visions of technology as "better than humans" or humans and technology as "better together" undergird the development of many new sociotechnical systems.[6] And yet studies of such technologies in practice reveal that visions of replacement often function as mirage: human care is still crucial, even as technology increasingly mediates it.

In this essay, we focus on several key questions relating to older adults like Mary, Isaiah, and Sofia, and the problems they and their carers face. Who is providing care, both paid and unpaid, and how does caring affect them? What are the different types of technologies that can aid care? What challenges and concerns do these different types of technology raise? And finally, how might we address these challenges moving forward? The implications of the use of care technology are of great import for older people, for their families, and for care workers. We argue against both overly optimistic and dystopian images of technology, urging instead for a clear assessment of the structural problems at hand.

In the simplest models of care, two individuals are involved: the care recipient and the carer. Older people, when care recipients, have traditionally been most likely to receive care from their spouses or partners, their siblings, their children or grandchildren, and their extended family, working alone or in com-

Figure 1
A Care Triangle



Source: Figure by the authors.

plex networks together. The addition of care technology to this dyad creates new dynamics, interactions, and questions (see Figure 1).

According to a report from the AARP, family carers provide an estimated $600 billion of unpaid care, rivaling or exceeding the market capitalization of Fortune 100 companies such as Visa (about $598 billion) and United Health (about $485 billion).[7] In most such models, women are much more likely to be carers than men, with both wives and daughters taking on the majority of unpaid care work.[8]

There is synergy between the behaviors and well-being experienced by older people and carers. The act of caregiving itself can have salutary effects for carers through altruism, feeling that they are contributing to their loved one, and serving as a role model for the next generation. These acts of caregiving can strengthen the interpersonal relationship between care recipients and carers, leading to downstream benefits for recipients such as better health outcomes, lower mortality, and less distress.[9] In this way, human caregiving can benefit both the person who provides care and the person who receives it.

Such benefits are counterbalanced by harms. The United States' high levels of stress, social isolation, and loneliness are particularly pronounced among the fifty-three million family carers who shoulder significant responsibilities of managing chronic and serious health conditions among adults.[10] The relationship between care recipients with chronic conditions and their carer can be undermined as identities shift, patients' functional status deteriorates, and carers have to take on more responsibilities. Studies show that patient-carer dyads managing non-dementia chronic conditions experience communication barriers, relationship strain, and conflict.[11] Ideal care models, technology-enabled or otherwise, would therefore mitigate the negative dimensions of caregiving on the individuals and their relationships, while enhancing the positive aspects of the same.

One limitation of the current literature is that it emphasizes the experiences of Western, predominantly white, heterosexual families. Yet caregiving is embedded in cultural norms and mores; role expectations based on gender and filial ties remain much more powerful among, for example, South Asian (such as Indian or Pakistani) families. Cultural factors also influence perceptions of certain diseases: for instance, cancer, dementia, and mental health conditions are stigmatized among individuals from South Asian countries.

As a result, family carers in these communities may be particularly vulnerable to poor outcomes. For example, in a national survey, nearly half of the family carers who identified as Asian American or Pacific Islander reported that they had no choice other than to be a carer if a family member was in need, and that they found caregiving "emotionally stressful."[12]

There are several things we know about those paid to provide care to older people but who are not doctors, nurses, or other relatively high-status professionals. First are the descriptive statistics. Those doing this work, in the home and in institutions, are growing in number (see Table 1), are low paid, and have a huge variation in background preparation and qualifications. Typically, they may possess a high school education, and some have received some additional training (see Table 2).[13] They are disproportionately women of color, often immigrants, and almost always below the poverty line in earnings. That is the recent picture in the United States.[14] Some are family members, employed and reimbursed directly by the care recipient or by the state via a stipend.[15] And there is reason to believe these descriptors are comparable for the rest of the industrialized capitalist world.[16]

Second, while there is a large literature on care work, especially care of the young, it tends to focus on the double burden of women in the family who perform a disparate share of the emotional and unpaid labor in the household. While this is undoubtedly an important part of the story, of more interest for our purposes are the hazards that workers experience at their jobs. Care work can involve heavy lifting as well as verbal and sexual abuse.[17] It appears to be particularly dangerous and difficult when the job takes place in the personal home of the individual receiving the care. As a National Research Council study concludes:

Table 1
Care Work Occupations and Women's Employment, 2000–2026: Different Measures of Potential Job Change

Care Work Occupations	All Workers, 2000		All Workers, 2014–2016 (ACS)		Employment Change, 2000 to 2014–2016		BLS Projected Employment Change, 2016–2026				Frey and Osborne Projected Automation Impact		
	Number	% Women	Number	% Women	Number	%	Number	%	Men	Women	Automation Probability	Men	Women
Nursing, Psychiatric, and Home Health Aides	1.660 mil	87.5	2.054 mil	87.5	393,430	24	613,100	24.0	76,669	536,431	0.40	(96,677)	(616,542)
Personal Care Aides	281,198	87.6	1.372 mil	83.3	1.091 mil	388	777,600	38.6	129,859	647,741	0.74	(93,091)	(401,901)
Childcare Workers	1.257 mil	95.3	1.264 mil	93.7	6,321	1	84,300	6.9	5,284	78,989	0.08	(6,654)	(99,499)
	3.199 mil		4.690 mil		1.484 mil	46	1.475 mil	31.4	206,528	1.184 mil		(189,768)	(1.018 mil)

ACS–American Community Survey; BLS–Bureau of Labor Statistics. Source: Institute for Women's Policy Research, *Women, Automation and the Future of Work* (Institute for Women's Policy Research, 2019), 62. For methodology, see ibid., "Methodological Appendix," 75.

> Health care professionals who practice in the home are more susceptible to a range of injuries and hazards because, unlike medical facilities, the home environment is more variable and generally not designed for the delivery of health care services. For example, although such tasks as lifting, pushing, and pulling are often performed by health care professionals, in the home they have less human assistance, usually no ergonomically designed equipment, and the environment is typically less appropriate (e.g., small spaces, crowded rooms) than in institutional health care facilities. Consequently, tasks may be performed in awkward positions or involve more strain and exertion – and may thereby result in injury. Formal caregivers whose jobs involve substantial time on personal care tasks, such as transferring, bathing, and dressing, have been found to incur among the highest rates of musculoskeletal injuries.[18]

Language and cultural barriers that make communication difficult between the carer, supervisors, medical professionals, family, and the cared-for add further hazards for care workers. Given how important transparent communication is for

Table 2
Bureau of Labor Statistics Occupational Outlook 2023:
Home Health and Personal Care Aides

Quick Facts: Home Health and Personal Care Aides	
2023 Median Pay	$33,530 per year; $16.12 per hour
Typical Entry-Level Education	High school diploma or equivalent
Work Experience in a Related Occupation	None
On-the-Job Training	Short-term on-the-job training
Number of Jobs, 2022	3,715,500
Job Outlook, 2022–2032	22% (much faster than average)
Employment Change, 2022–2032	804,600

Source: U.S. Bureau of Labor Statistics, "Home Health and Personal Care Aides," in *Occupational Outlook Handbook* (U.S. Department of Labor, 2022), https://www.bls.gov/ooh/healthcare/home-health-aides-and-personal-care-aides.htm.

trusting relationships, these blockages can have significant consequences for the quality of care.[19]

Third is what we know about the employment status of these workers. Some are hired directly by the family, but many work for firms or agencies that contract with the family or medical facility. Some paid carers are family members; others are hired to replace or support family input. Part of the payment generally comes from government, through social insurance programs for, or the government pensions of, the elderly.[20] The effect is often considerable bureaucratic complexity for those managing the care, and particularly for those carers who lack the skills to navigate the system or who are unaware of their rights. The current system also opens the door to financial and physical abuse of care recipients by opportunistic and unscrupulous carers.[21]

Given the circumstances of family and paid carers for the elderly, certain types of technology could prove to be a significant boon to improving the quality and safety of the work and simplifying their bureaucratic and communications burden. And technological aids to care are increasingly promoted as potential solutions to the complex set of structural problems around paid home care provision. This raises questions about the ways technology might replace, mediate, or augment human input, as well as their potential to improve or subvert established caring models. There is both limited evidence of efficacy and acceptability and even less attention to the effects of technology, such as robotic assistants, voice assistants, and monitoring systems, on existing human relationships within the care dynamic.[22]

We believe there are three potential drivers underpinning the current increased interest in AI/robotics and other technologies in care provision. First, population aging imposes economic and fiscal challenges to the government, rooted in the changing balance between the economically productive and nonproductive sectors of the population. Second, family perspectives are changing, raising questions about who is directly responsible for care of the old. The third impetus toward technology is the tech industry itself, which is always seeking new placement for its products and new streams of profitable revenue. These privatized and market options could reflect the newest expansion of the market into intimate life and an attempt to cut costs on the part of care facilities and insurers.[23]

Given the potential benefits to carers and receivers of care as well as the financial interests of stakeholders, tech optimism is widespread. Yet new technologies come with significant potential risks, including for an already vulnerable workforce.

While technological aids can improve conditions for all those in the care network, they can also create new tensions and problems.[24] To understand the implications – positive and negative – of technologies, it is necessary to distinguish their intended purpose, their affordances, and the visions of automation they embody.

There are meaningful differences among telehealth software, home monitoring systems, and companion robots: in the problems they purport to solve, the involvement of human workers, and their imagined affordances.[25] The term *affordance* within the communication and media studies literature refers to the possibilities technological artifacts provide to a user.[26] The term *imagined affordances* acknowledges the changing nature of these uses and possibilities; affordances are dependent on the user, designer, and specific social context. We outline some potential affordances here, with the understanding that these may shift depending on the visions of the designers and the ways that carers and care recipients use these technologies in everyday life.

Take the example of a voice assistant like Alexa, which has often been portrayed as akin to a feminized secretary in Amazon's advertisements.[27] Isaiah, the eighty-year-old man with dementia from our earlier vignette, uses Alexa as a glorified speaker, engaging with the voice assistant to listen to music. However, Isaiah's son, who lives in another state, installed the device to monitor his father's daily interactions with Alexa via the mobile app; if his father is speaking frequently to Alexa, he feels relatively reassured about his well-being. Isaiah does not understand that he is being monitored in this way. For the homecare worker who comes to the house three times a week, the device presents a threat of surveillance: She feels uncomfortable at work knowing that Alexa (and by extension her employer) is "listening." She has no access to the data recorded by the voice assistant, though John's son can access it all. Such contradictions and varied affordances are important to consider as they are often linked to the risks of these technologies, particularly for workers.

Various technologies propose to alter the care process in different ways; embedded in them are both the problems that they purport to solve, such as loneliness, safety, or the high cost of in-person medical care, as well as visions of how care might be transformed. These problems themselves may be fuzzy and contested; as anthropologist Lucy Suchman notes, technologies branded under the banner of "AI" often provide solutions before defining the problems.[28] In Table 3, we outline different areas of care, corresponding technological aids, the problems these technologies claim to solve, current commercial examples, their imagined affordances, and the vision of automation embedded within them. Some technologies span multiple categories, with different affordances allowing for different care needs to be met.

The affordances of different types of care technologies relate to three visions of the future of care work: replacement, mediation, and augmentation.

In *replacement* visions, technology aims to replace a human care worker. However, ethnographies of automated systems demonstrate that the replacement vision is much more complex; human labor is often essential to their maintenance.[29] Labor therefore changes, rather than disappears.

In *mediation* visions, technology does not replace or augment human input but rather mediates the care process between recipient and provider. Care is conducted via technology, but humans remain at each end of the exchange. Examples of this include telecare, through which patients and health care providers can communicate remotely, and home monitoring systems, through which carers can monitor older people.

Finally, in *augmentation* visions, technology is intended to assist or augment the human work of care provision. An animatronic pet is not expected to completely replace human companionship; however, it may relieve some of the burden from humans. Similarly, lifting robots are often presented as augmenting human care by assisting with difficult, laborious work while allowing human workers to attend to other tasks. However, in his ethnographic research on the implementation of these care robots, anthropologist James Wright shows that they in fact cre-

Table 3
Technologies of Care: Types, Problems, Examples, Affordances, and Visions of Automation

Type of Care	Types of Technology	Problems They Purport to Solve	Current Commercial Examples	Imagined Affordances	Vision of Automation
Companionship	Companion robots, animatronic companion animals, voice assistants	Loneliness, isolation	Paro, Joy for All Companion Pets, Alexa, Siri	Conversation (for voice enabled devices), touch (for physical companion devices), sound (for physical companion devices)	Augmentation, replacement
Bio-monitoring	Wearables, monitoring systems, health care robots	Monitoring heart rate, blood pressure, blood sugar levels, other vital signs	Fitbit, Apple Watch	Data collection, data analysis, health assessments, touch, fitness tracking	Mediation
Monitoring and surveillance	Home monitoring systems, fall detection systems (in homes and nursing homes), "granny cams" (employed in nursing homes to monitor for elder abuse)	Safety, security	Alexa Together, Rest Assured, Ayesafe	Visual monitoring, audio monitoring, movement monitoring, predictive analysis workplace surveillance (for home care workers), intimate surveillance (for older people)	Mediation

Table 3, continued

Type of Care	Types of Technology	Problems They Purport to Solve	Current Commercial Examples	Imagined Affordances	Vision of Automation
Health care appointments / talk therapy	Telecare, Telehealth	High costs of health care and mental health care, physical barriers to seeing providers in-person	Talkspace (mental health), Sesame (health), Teledoc (health)	Ability to visibly see care provider, quick access to care, choice of whether to use video, portability and mobility	Mediation
Guidance, reminders	Automated medicine dispensers, voice assistants, digital assistants	Forgetfulness around routines such as medication	Siri (reminders), Hero Health (medication dispenser)	Smart phone integration, audiovisual reminders, customization, carer control	Replacement, mediation
Physical care	Care bots, mobility devices, exoskeletons, fallbags (wearable airbags for falls)	Physical barriers to care, recovering from falls, discrepancies in size between carer and older person	Robo-bear	Lifting, movement, touch/haptic interaction	Augmentation

Source: Table by the authors.

ate more or different kinds of work for carers, sometimes deskilling them in the process.[30] Paradoxically, human carers may shift their labor toward "care" of the technology, rather than the human recipient of care. Furthermore, care robots exemplify a significant gap between the *visions* of their developers and their actual *capabilities* in practice; their promise has been repeatedly overstated.[31]

Technological advances have contributed to improvements in the quality of life and health of people of all ages, including older people, by monitoring their conditions, maintaining access to family at a distance, reducing the need to travel to be seen by health care providers, and providing a form of companionship. However, the use of new technology can also introduce new problems for care and new conflicts among those receiving and providing care.

The problems come in several forms. The first is the introduction of errors. Carers, family members, and elderly patients seldom receive sufficient training with new techniques and machines, and the resources to which they can turn for help are often limited. Developing dependency on new tools can also mean a failure to learn how to do the job the machine does, which can be disastrous if the technology suddenly stops working. For example, an error in the source code of an automatic pill dispenser controlled via an app could lead to serious health consequences for the person no longer able to access their medication. An additional and very different kind of error results from misinformation. For example, relying on advice from internet forums or a large language model–powered chatbot for information may not only be misleading about the correct diagnosis or best treatment for the patient, but may also cause conflicts among those in the care triangle. This is particularly an issue when the carer is considered a person of low status and thus without authority to counter the misinformation and problematic instructions given by the care recipient or their family.

A second problem relates to technology's role as a companion. When machines substitute for the human carer or even when they mediate that relationship, they change the interactions and dyadic human relationships that are so critical to the well-being of the patient. The unpredictability, mistakes, and emotional risks accepted by carers provide a contrast to the rationalization of this work that is present in automation.[32] Cultural variations are also relevant in technology's role as a companion. Anthropologist Jennifer Robertson has argued that, in Japan, both anti-immigrant sentiment and techno-optimistic government propaganda have led to a cultural environment that is perhaps more accepting of robot carers.[33] Finally, the ethics of companionship are complicated, especially in cases of cognitive decline. For individuals like Sofia, the eighty-eight-year-old dementia patient, the ethics of companion robots become thorny. Issues of attachment, consent, and the relative value of human companionship become complex sociotechnical problems.[34]

A third problem has to do with the fine line between monitoring and surveillance. Monitoring of older adults has several positive aspects. It allows carers to have access to visual and auditory alerts from a distance. It can give family members assurance that there is no elder abuse occurring and the ability to track its source should it occur. But as is the case with nanny cams, monitoring can turn into surveillance, leading to inappropriate interventions by those observing. Surveillance of carers can also introduce tensions into their relationships with family members, other employers, insurance providers, and the patient. Considerable evidence exists that treating workers as untrustworthy, which surveillance by its very nature does, undermines the loyalty and good will of the worker.[35] Furthermore, both private residences and nursing homes can operate as fraught "private public spaces" in which regulations regarding privacy – on the part of workers, families, and care recipients – are not easily established.[36]

A final concern and source of tension in the triangle is human care workers' fear that they will be replaced by machines. Whether or not this is an overstated fear, technology will certainly play an increasing role in the carers' work. That raises questions of what kind of care the technology can actually provide, what caregiving it can replace, and what it cannot. Analyses of the impact of technology on work often claim that jobs requiring human interactions, of which caregiving is clearly one, are likely to survive.[37] The feminist literature on caregiving goes further, highlighting the importance of the relational component of care in addition to the medical or purely transactional.[38] Certainly, there is evidence of attachments formed by older people to technological aids, be it a voice assistant or a companion robot. There is some cultural variation here, but nonetheless the emotional commitments of human carers will remain an important aspect of their motivation and their contribution to care as long as there are human carers in the loop.

Those who become carers are paid (or rewarded) in part because of the emotional nurturance they provide. Some come to the task with those emotional capacities, some develop them, and some simply pretend, but such capacities are an expected piece of the work for most carers.[39] Technology can help make clearer the lines between emotional, medical, and technical labor, but it could also transform the work into an "IT job" and dangerously undermine the relational aspects of care that so many care recipients and carers value.

Despite clear knowledge of demographic change, the United States remains unprepared for its aging population, and particularly how it will care for its dependent old. As such, in the absence of clear new policies, we risk turning a demographic triumph into a demographic disaster.

Some disasters, such as viral pandemics, come largely unforetold, but the aging of our society is clearly understood and entirely predictable. Some may cling to notions of compression of morbidity and dramatic decline in the levels of dependency in older age, but there is as yet no evidence that this is occurring, and to believe that it will within the lifespan of the baby boomer generation is tantamount to neglect.

We believe that policymakers in the United States must: 1) reframe care and caring to reflect all aspects of their value; 2) provide well-paid, well-trained roles for human carers with clear career pathways; and 3) develop regulatory guardrails for further development and deployment of technology.

Technology can undoubtedly support care but a) its impact on human carers must be better researched and understood; b) its impact on care recipients must be better researched and understood; c) its cost effectiveness must be better researched and understood; and d) its limits must be defined, informed by empirical research.

When is substituting technology for human care unethical? The assumption that care technology should be rapidly developed for older people, but not for dependent babies and toddlers, reinforces the stereotype of burden, and betrays negative attitudes about the old.

Overzealous pursuit of care technology, promoted by a powerful tech industry and fueled by consumerism, may lead to false beliefs about its utility. The pressing societal need is to create the conditions that enable more humans to participate in care, not to hope to substitute them with technology that is ultimately found wanting. At the same time, technology is already mediating and augmenting human care – its effect on relationships can and should be studied.

Although humans appear biologically conditioned to care for their young, there is a question about whether we are similarly conditioned to care for the old.[40] Care for the old varies with cultures, class, and demography, among a multitude of other factors.[41] The contrast with care of the young is marked: Were an emaciated four-year-old found alone in a house, our immediate presumption of responsibility lies with the parents. When an emaciated eighty-four-year-old is found alone, does it lie as clearly with their children?

It is past time for society to transform the model of care of its old. The family, market, and government structures of the past are appropriate for neither the present nor the future.

ABOUT THE AUTHORS

Elizabeth Fetterolf is a PhD student in Communication at Stanford University. They hold an MSc in Sociology from the University of Oxford and a BA from Vassar College. They have published in such journals as *The Journal of Digital Social Research* and *Convergence*.

Andrew Elder is first and foremost a physician. He is also an NHS Consultant in Medicine for Older People and Honorary Professor at the University of Edinburgh. Outside of clinical care, he focuses on medical education. Formerly, he served as President of the Royal College of Physicians of Edinburgh and Medical Director of the Federation of the Royal Colleges of Physicians of the United Kingdom.

Margaret Levi, a Member of the American Academy since 2001, is Professor Emerita of Political Science, Senior Fellow at the Freeman Spogli Institute for International Studies, and Faculty Fellow of the Center for Advanced Study in the Behavioral Sciences at Stanford University. She is also Jere L. Bacharach Professor Emerita of International Studies in the Department of Political Science at the University of Washington. Among her books are *Of Rule and Revenue* (1988), *Consent, Dissent, and Patriotism* (1997), and *In the Interest of Others: Organizations and Social Activism* (with John Ahlquist, 2013).

Ranak B. Trivedi is a clinical psychologist and Associate Professor of Psychiatry and Behavioral Sciences at Stanford University, and is a Fellow of the Society of Behavioral Medicine and of the Gerontological Society of America. She also serves as an advisor of the National Alliance of Caregiving. She has published in such journals as *Annals of Behavioral Medicine*, *Journal of General Internal Medicine*, *Medical Care*, and *Journal of the American Geriatric Society*. She is coauthor of *Family Caregiver Distress* (2023), the first clinical handbook to help clinical psychologists use evidence-based approaches to support their patients who are carers.

ENDNOTES

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[36] Karen Levy, Lauren Kilgour, and Clara Berridge, "Regulating Privacy in Public/Private Space: The Case of Nursing Home Monitoring Laws," *The Elder Law Journal* 26 (2019).

[37] David J. Autor, "Why Are There Still So Many Jobs? The History and Future of Workplace Automation," *Journal of Economic Perspectives* 29 (3) (2015): 3–30.

[38] Paula England, "Emerging Theories of Care Work," *Annual Review of Sociology* 31 (2005): 381–399, https://doi.org/10.1146/annurev.soc.31.041304.122317; Pugh, "Constructing What Counts as Human"; Hochschild, *The Managed Heart*; Nancy Folbre, *The Invisible Heart: Economics and Family Values* (New Press, 2001); and Anne-Marie Slaughter and Hilary Cottam, "We Need a New Economic Category," *The Atlantic*, September 23, 2021, https://www.theatlantic.com/ideas/archive/2021/09/new-economy-caregiving/620160.

[39] The sociological literature on care work has a long, complicated relationship with the role of emotion for paid care workers. For a recent overview of this literature that calls for the importance of interrogating rather than turning away from emotion when it comes to care, see Allison J. Pugh, "Connective Labor as Emotional Vocabulary: Inequality, Mutuality, and the Politics of Feelings in Care-Work," *Signs: Journal of Women in Culture and Society* 49 (1) (2023): 141–164, https://doi.org/10.1086/725837.

[40] Alison Gopnik, "Caregiving in Philosophy, Biology & Political Economy," *Dædalus* 152 (1) (Winter 2023): 58–69, https://www.amacad.org/publication/daedalus/caregiving-philosophy-biology-political-economy.

[41] Elana D. Buch, "Anthropology of Aging and Care," *Annual Review of Anthropology* 44 (1) (2015): 277–293, https://doi.org/10.1146/annurev-anthro-102214-014254.

Imagining Yourself in Another's Shoes versus Extending Your Concern: Empirical & Ethical Differences

Eric Schwitzgebel

According to the Golden Rule, you should do unto others as you would have others do unto you. Similarly, people are often exhorted to "imagine themselves in another's shoes." A related but contrasting approach to moral expansion traces back to the ancient Chinese philosopher Mengzi, who urges us to "extend" our concern for those nearby to more distant people. Other approaches to moral expansion involve attending to the good consequences for oneself of caring for others, expanding one's sense of self, expanding one's sense of community, attending to others' morally relevant properties, and learning by doing. About all such approaches, we can ask three questions: To what extent do people in fact (for instance, developmentally) broaden and deepen their care for others by these different methods? To what extent do these different methods differ in ethical merit? And how effectively do these different methods produce appropriate care?

According to the Golden Rule, you should do unto others as you would have others do unto you. Similarly, you might imagine yourself in "another person's shoes"; or you might aspire to "love thy neighbor as thyself"; or you might sympathetically attempt to feel what another is feeling, coming thereby to want or loathe what they want or loathe. Considered as approaches to expanding or deepening our care or concern for others, all of these approaches share a core idea: They treat self-concern as a given and as the seed from which care for others might grow. You model others upon yourself and treat them as you would like to be treated.

A different approach treats concern for *nearby others* as a given and as the seed from which care for more distant others might grow. If you'd care for a nearby child, so also should you care for more distant children. If you'd want something for your sister, so also should you want something similar for other women. This approach to moral expansion differs substantially from Others' Shoes / Golden Rule thinking, both in its ethical shape and in its empirical implications.

The two approaches can complement each other. They needn't compete. And other approaches are also possible, as I'll discuss, including noticing alignments

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between self- and other-interest, expanding one's sense of self, expanding one's sense of community, attending to ethically relevant properties, and learning by doing. About all such approaches, we can ask three questions: To what extent do people *in fact* (for instance, developmentally) broaden and deepen their care for others by these different methods? To what extent do these different methods *differ in ethical merit?* And *how effectively* do these different methods produce appropriate care? The answers, of course, aren't simple.

In this essay, I focus on the contrast between the first and second approaches: that is, Others' Shoes / Golden Rule thinking versus extending one's concern from nearby others to more distant others. The latter approach has been relatively less explored and theorized, and so I begin by tracing its roots in ancient Chinese Confucianism, specifically in the philosopher Mengzi. I suggest that *Mengzian Extension*, as I call it, is both ethically and empirically attractive. I also suggest how ethicists and moral psychologists would benefit from more systematically exploring ethical and empirical differences among different approaches to the expansion of care.

Mengzi is the most prominent ancient Confucian after Confucius himself, flourishing near the end of the fourth century BCE. He is known especially for his doctrine that "human nature is good" (xìng shàn 性善). As he lays out in one famous passage:

> The reason why I say that all humans have hearts that are not unfeeling toward others is this. Suppose someone suddenly saw a child about to fall into a well: Anyone in such a situation would have a feeling of alarm and compassion – not because one sought to get in good with the child's parents, not because one wanted fame among one's neighbors and friends, and not because one would dislike the sound of the child's cries (Book 2, Part A, Chapter 6, 46).[1]

Empirically, the claim is plausible. Everyone (nearly everyone?) would feel alarm and compassion upon suddenly encountering a child about to fall into a well, and not on selfish grounds.

Notice what Mengzi is *not* saying here. He is not saying that everyone would try to save the child. Nor is he saying that we can't smother our alarm and compassion or gird ourselves in advance with callousness. Rather, if we *suddenly* – unprepared, off-guard – come across a child at a well's edge, we will have a certain momentary reaction. Mengzi is also not saying that everyone is already benevolent. As he explains later in the same passage, "The feeling of compassion is the sprout [duān 端] of benevolence." Mengzi's view is that we all have the *capacity to become* benevolent, by nurturing the "sprout" within us that naturally feels alarm and compassion in situations like these.

In this passage, Mengzi draws no connection between concern for the child and self-concern, not even an implicit or indirect connection. Mengzi is not saying that we see the child as like us, or that we imagine how we would feel if we were the child or the child's parents, or that we would want to be saved in a similar situation. Etymologically, "compassion" (cè 惻) in classical Chinese does not suggest co-passion, or feeling together. If it etymologically suggests anything (and there's reason to be cautious about over-etymologizing), it is instead that compassion is something like the heart's pattern, rule, or logic.

In several other passages, Mengzi notes that a natural concern for those nearby can be extended into more general concern for distant others:

> That which people are capable of without learning [xué 學] is their genuine capability. That which they know without pondering [lǜ 慮] is their genuine knowledge. Among babes in arms there are none that do not know to love their parents. When they grow older, there are none that do not know to revere their elder brothers. Treating one's parents as parents is benevolence. Revering one's elders is righteousness. There is nothing else to do but extend these to the world (7A15, 174–175; 無他, 達之天下也).

For Mengzi, the root of benevolence and righteousness is familial love and reverence, which people naturally possess without having to "learn" or "ponder." The moral developmental challenge is to extend these reactions beyond the family.

Mengzi served awhile as an advisor to King Xuan, despotic ruler of the powerful state of Qi. King Xuan's character is illustrated by the following episode: Aiming to acquire new territory, King Xuan invaded the neighboring state of Yan. The people of Yan, apparently eager to be free from their own terrible king, welcomed the invaders with baskets of food and pots of soup. Nevertheless, King Xuan bound and killed them, destroyed their ancestral temples, and plundered their goods (1B11, 28).

In one recorded dialogue, Mengzi recommends that King Xuan "care for the people" (1A7, 8). King Xuan replies skeptically, asking if someone like him *could* care for the people. Mengzi relates an episode he had heard from an attendant:

> While the king was sitting up in his hall, an ox was led past below. The king saw it and said, "Where is the ox going?" Hu He replied, "We are about to ritually anoint a bell with its blood." The king said, "Spare it. I cannot bear its frightened appearance, like an innocent going to the execution ground." Hu He replied, "So should we dispense with the anointing of the bell?" The king said, "How can that be dispensed with? Exchange it for a sheep" (1A7, 8).

The king couldn't bear the suffering of the ox, though if it was really animal suffering he cared about, then his decision was confusing, since the sheep presumably also suffered. A puzzle! His subjects thought he was merely being cheap.

Mengzi politely refrains from mentioning the absurdity of the king's compassion for an ox because it *looks like* an innocent person being led to execution, given that – I think we can guess – the king probably sometimes ordered the execution of innocent men. What Mengzi does suggest is that if the king can be moved by the suffering of an ox, he can care for his people. For the king to say otherwise would be like his saying he could see the tip of a hair but not a cartload of firewood.

To care for the people, the king must extend (tuī 推) his kindness, favor, or mercy (ēn 恩):

> Treat your elders as elders, and extend it to the elders of others; treat your young ones as young ones, and extend it to the young ones of others. . . . If one extends one's kindness, it will be sufficient to care for all within the Four Seas (1A7, 11).

In the recent secondary literature on Mengzi, there's some debate about what Mengzi recommends "extending." Are you to extend your emotions or instead something like rational principles of analogous treatment?[2] The full Mengzian view probably involves both aspects, each supporting the other. Mengzian Extension, as I see it, is the following idea: We are naturally concerned about spatially and relationally nearby others. We should notice that distant cases are often relevantly similar to those nearby cases, even if we aren't immediately and naturally moved by them. We should extend our natural concern – our actions, feelings, and motivations – from the nearby cases to the more distant cases in a way that appropriately reflects the relevant similarities. (This isn't to say that all of our spontaneous caring reactions are appropriate to act upon. As a good Confucian, Mengzi presumably would have approved of the ritual sacrifice of the ox, and he explicitly advises the "gentleman" to stay away from the kitchen so as not to be excessively influenced by the suffering of animals killed for meat [1A7, 9].)

More familiar to readers of recent Anglophone ethics might be philosopher Peter Singer's example of the drowning child.[3] Suppose you were to encounter a child drowning in a shallow pond. You could easily save the child's life by wading into the pond, but doing so would ruin the expensive new shoes you recently purchased. Surely you should forget about the expense of your shoes and save the child. But if you would sacrifice an expensive pair of shoes to save a nearby child, you should also be willing to sacrifice a similar amount of money to save the life of a distant child. The fact that the child in need happens to be spatially nearby is not, Singer claims, morally relevant. Therefore, if you have the chance to save a distant child's life by sacrificing a moderate amount of money, you should do so; and through donating to effective charities, you do, right now, have this opportunity. Singer's pond argument shares a common core with Mengzian Extension. It starts from assumed concern for an actual or hypothetical nearby person (or animal), then invites us to extend that concern to relevantly similar others farther away.

A long, diverse, and better-known tradition emphasizes Others' Shoes / Golden Rule thinking. I will not attempt a scholarly summary of that tradition here, other than to note its famous appearance in the Christian Bible (Matthew 7:12; Luke 6:31) and subsequent Christian tradition, its etymological and sometimes explicit connection with "sympathy," and its connection with "simulation theories" of our understanding of others' minds.[4]

We might model Others' Shoes / Golden Rule thinking as follows:

- If I were in the situation of Person X, I would want to be treated in manner M.
- Golden Rule: do unto others as you would have others do unto you.
- Thus, I will treat Person X in manner M.

We might model Mengzian Extension as follows:

- I care about Person Y and want W for them.
- Person X, though more distant, is relevantly similar to Person Y.
- Thus, I want W for Person X.

Alternative and more complex formulations are possible, but this sketch captures the central difference between these two approaches to moral cognition. Mengzian Extension models general moral concern on the natural concern we already have for others close to us (whether spatially close, like the child at the well or King Xuan's ox, or relationally close, like our parents and siblings), while the Golden Rule models general moral concern on concern for oneself.

Empirically, we can ask: Which model comes closer to capturing the ordinary patterns of moral cognition and development in children and adults? When we feel concern for someone else, does it tend to be because we use ourselves as a model for the other person, and knowing what we would hypothetically want, we then come to want the same thing for them? Or does concern for nearby others arise in a simpler and less self-involving way (without "learning" or "pondering") that can then be extended to more distant others? (Already from this way of posing the question – and to anticipate the next section – we can see that this is not an exhaustive list of possible forms of moral cognition.) If we had the right kind of cognit-o-meter, would we find representations of the self and one's own hypothetical desires at the root of much of moral thinking and moral growth? Or would we typically find some more direct, non-self-involving path to concern for those nearby, and then something like analogy or comparison when contemplating more distant cases?

The cognitive complexity of Others' Shoes thinking becomes evident if we compare it with the cognitive demands in the development of empathy as articulated in psychologist Martin Hoffman's influential work. Only in middle childhood, Hoffman argues – around six to nine years – do children appear to have the cognitive sophistication to empathize in a manner that clearly distinguishes their emotions from the emotions of others, correctly anticipating what others might feel in hypothetical situations that differ from their own.[5] In general, Others' Shoes thinking, at least in its mature form, appears to require combining a relatively sophisticated "theory of mind" with relatively sophisticated hypothetical thinking. You must hypothetically imagine being in another person's situation, typically with different beliefs, desires, and emotions, and you must assess what you, in that hypothetical situation with that transformed psychology, would probably want. Such sophisticated hypothetical cognitive and affective perspective-taking is likely to be challenging for the typical preschooler.[6]

One well-known problem for Others' Shoes thinking is what we might call the Cherry Pie Problem.[7] Suppose you love cherry pie. I loathe cherry pie. I'd rather have chocolate cake. When planning a party for me, you shouldn't ask yourself what dessert you would want at the party, if you were in my shoes. You should ask what *I* would want. You shouldn't actually do unto me – cherry pie – what you would want to have done unto you. You should instead give me the dessert you know that I prefer. The Cherry Pie Problem has a cognitive, an epistemic, and a conceptual dimension.

Cognitively, it's clear that Others' Shoes thinking, to be effective, requires building a hypothetical change of desires into the cognitive exercise. Assume, hypothetically, that you had my dessert preferences: what would you want if the party was for you and if your favorite dessert was whatever is in fact my favorite dessert? But this is a needlessly complex cognitive operation compared with a simpler rule to give people the dessert they prefer.

Epistemically, Others' Shoes thinking also presents a needless challenge: you now have to figure out what dessert you would want if you were in my position and if you had such-and-such different desires. But how do you figure out which desires (and beliefs, and emotions, and personality traits, and so on) to change and which to hold the same for this thought experiment? And how do you know how you would react in such a hypothetical case? By routing the epistemic task of choosing a dessert for someone else through a hypothetical self-transformation, it potentially becomes harder to know or justify a choice than if the choice is based directly on knowledge of the other's beliefs, desires, or emotions.

Conceptually, the problem is that there might not even be facts to track. Consider an extreme case: what treat would you want if you were a prize-winning show poodle? The hypothetical might be so remote and underspecified that there is no determinate fact about what "you" would want in that case. Better just to go straight to bland generalizations: if you want to delight a prize-winning show poodle, just figure out as best you can what treats that sort of dog tends to like.

Mengzian Extension presents a different range of developmental, cognitive, epistemic, and conceptual challenges. Developmentally and cognitively, Mengzian Extension requires recognizing what one wants for nearby others, and then reaching a judgment about whether more distant others are relevantly similar.

This requires an ability to generalize one's ethical knowledge beyond immediate cases based on an assessment of what do and do not constitute differences that are relevant to the generalization. Although this is potentially complex and demanding, it is not quite as convoluted as the hypothetical situational and motivational perspective-taking envisioned in Others' Shoes thinking. In principle, it resembles other instances of generalization beyond nearby cases: The bottle here breaks when I smash it, so other bottles are probably similar. The teacher said it was wrong for Emily to copy answers from Omar, so it's probably also wrong for Tanseem to copy answers from Miranda. My four-year-old sister loves when I play Clue with her, so other four-year-old girls would probably also love to play Clue. As this last example suggests, such inferences have risks.

We might hybridize Mengzian Extension and Others' Shoes reasoning: If you know what your sister would want, you can assume that is what other girls her age would want. Do unto the distant innocent person as you would do unto the nearby innocent person. If the targets more closely resemble each other than you resemble them, the epistemic and conceptual challenges inherent in Others' Shoes thinking would be mitigated.

The ethical character of Others' Shoes / Golden Rule thinking also differs from that of Mengzian Extension. Except in the simplest consequentialism, the thought behind an action is relevant to the moral evaluation of that action. The thought *if that was me, A is what I would want, so I'll do A* reflects a different style of thinking than *I want A for my daughter, so I want A for this other child*. Others' Shoes thinking grounds moral action in displaced *self-concern,* while Mengzian Extension grounds moral action in displaced *other concern*. While there's something ethically admirable about seeing others as like oneself and thus as deserving the types of treatment one would want for oneself, I'd also suggest that there's also something a bit . . . self-centered? egoistic? . . . about habitually grounding moral action through the lens of hypothetical self-interest. Mengzian Extension assumes, more appealingly, that concern for nearby others requires no reasoning – no "learning" or "pondering," no imaginative transportation or analogizing to the self – and that broader concern can be grounded in a way that doesn't require imaginative consideration of one's own interests.

Recent Western depictions of "circles of concern" typically put the self at the center, close others as the next ring out, and more distant others in ever-expanding circles.[8] Confucians accept a somewhat similar picture of "graded love" from family to neighbors to others in one's state to the world as a whole. But there's a crucial difference: the starting point and inmost circle in Confucian conceptions of graded love is always concern for near family. It would be antithetical to the spirit of Confucian graded love to place self-concern at the center of one's moral thinking, with one's parents and children in the second ring out.

There's an implicit me-first-ism in models of moral concern that put oneself at the center, which Confucian approaches generally lack. Inner-ring me-first-ism invites the idea that self-concern is the inescapable hard nut from which concern from others must always grow. Rousseau, for example, in *Emile,* an extended work of fiction that appears to be describing an idealized form of moral education, endorses the foundational importance of the Golden Rule, writing that "love of men derived from love of self is the principle of human justice."[9] Mengzi or Confucius would never say such a thing.

Now it is true that Confucius does twice appeal to a negative version of the Golden Rule, sometimes called the Silver Rule: "Do not impose upon others what you yourself do not desire."[10] I certainly don't think that Confucians must reject thoughtful applications of the Golden Rule. As I mentioned earlier, approaches to moral expansion can complement each other. But in Mengzi, this is at most a secondary strand.

Let me mention another ethically appealing feature of Mengzian Extension: it can be turned back upon oneself. It can be adapted to justify and motivate self-care or self-concern among those who are too self-effacing. This requires modifying or reinterpreting the assumption that extension is always to more "distant" others, and it is not something that Mengzi explicitly discusses, but it strikes me as a natural adaptation. If you would treat your father or sister in manner M, treat yourself, to the extent you are relevantly similar, in the same manner. If you would want your father to be able to take a vacation, recognize that you might deserve a vacation too. If you'd object to your sister being publicly insulted by her spouse, recognize that you also shouldn't accept such insults. We can benefit, sometimes, by generalizing back to ourselves. In such cases, Others' Shoes thinking seems to give exactly the wrong answer: because if you wouldn't take the vacation or object to the insult, your father and sister also shouldn't.

We can also ask which way of thinking is more effective in leading us to expand our care appropriately to others to whom we are too indifferent. If you want to convince a vicious king to be kinder to his people, is it more effective to encourage him to reflect on what he would want if he were a peasant, or is it more effective to highlight the similarities between people (or animals) he already cares about and those who are farther away? If you want to encourage donations to famine relief, is it better to ask people what they would want if they were starving, or to compare those distant others to nearby others they already care about?

I'm aware of no direct empirical tests of this question. However, I'll mention two pieces of suggestive evidence.

First, in the bad old days of the 1980s, disturbing images of malnourished children dominated TV appeals by famine-relief organizations. Since then, however, the tendency has strongly swung toward uplifting pictures and narratives in which donation recipients look like thriving neighbors, people it's easy to imagine as your exotically dressed cousins or friends – but again, with a disproportionate emphasis on pictures of children. Plausibly, this practice reflects hard-won practical expertise concerning what stimuli effectively induce donations.[11] The focus especially on children probably has several justifications – including their presumed greater innocence and helplessness – but it's worth noting that if you're an adult, it's probably more natural to see the resemblance between a seven-year-old Somali child and your own child than a seven-year-old Somali child and yourself. This emphasis on children thus fits more comfortably with a Mengzian mechanism than with an Others' Shoes / Golden Rule mechanism.

Second, in a recent study, my collaborators Kirstan Brodie, Jason Nemirow, Fiery Cushman, and I presented to online research participants ninety different arguments designed to motivate charitable giving, mostly written by professional philosophers and psychologists and submitted to us as part of a contest.[12] Participants read the arguments, or read a control text, then had an opportunity to donate a surprise bonus to charity. The author of the argument that produced the highest rates of donation received $500 plus a donation of $500 to their choice of effective charity. Contestants were instructed to minimize the emotionality of their appeal, not to include narrative elements, and not to refer to specific individuals or events.

In the first phase of the study, we selected twenty submissions that we thought represented a diversity of the most promising arguments. The winning argument was the following:

> Many people in poor countries suffer from a condition called trachoma. Trachoma is the major cause of preventable blindness in the world. Trachoma starts with bacteria that get in the eyes of children, especially children living in hot and dusty conditions where hygiene is poor. If not treated, a child with trachoma bacteria will begin to suffer from blurred vision and will gradually go blind, though this process may take many years. A very cheap treatment is available that cures the condition before blindness develops. As little as $25, donated to an effective agency, can prevent someone going blind later in life.
>
> How much would you pay to prevent your own child becoming blind? Most of us would pay $25,000, $250,000, or even more, if we could afford it. The suffering of children in poor countries must matter more than one-thousandth as much as the suffering of our own child. That's why it is good to support one of the effective agencies that are preventing blindness from trachoma, and need more donations to reach more people.[13]

The concluding paragraph of that entry appears to be a version of Mengzian Extension.

In the second phase of the study, we tested all ninety arguments. The best performing in this phase was the following:

> HEAR ME OUT ON SOMETHING. The explanation below is a bit long, but I promise reading the next few paragraphs will change you.
>
> As you know, there are many children who live in conditions of severe poverty. As a result, their health, mental development, and even their lives are at risk from lack of safe water, basic health care, and healthy food. These children suffer from malnutrition, unsanitary living conditions, and are susceptible to a variety of diseases. Fortunately, effective aid agencies (like the Against Malaria Foundation) know how to handle these problems; the issue is their resources are limited.
>
> HERE'S A PHILOSOPHICAL ARGUMENT: Almost all of us think that we should save the life of a child in front of us who is at risk of dying (for example, a child drowning in a shallow pond) if we are able to do so. Most people also agree that all lives are of equal moral worth. The lives of faraway children are no less morally significant than the lives of children close to us, but nearby children exert a more powerful emotional influence. Why?
>
> SCIENTISTS HAVE A PLAUSIBLE ANSWER: We evolved in small groups in which people helped their neighbors and were suspicious of outsiders, who were often hostile. Today we still have these "Us versus Them" biases, even when outsiders pose no threat to us and could benefit enormously from our help. Our biological history may predispose us to ignore the suffering of faraway people, but we don't have to act that way.
>
> By taking money that we would otherwise spend on needless luxuries and donating it to an effective aid agency, we can have a big impact. We can provide safe water, basic health care, and healthy food to children living in severe poverty, saving lives and relieving suffering.
>
> Shouldn't we, then, use at least some of our extra money to help children in severe poverty? By doing so, we can help these children to realize their potential for a full life. Great progress has been made in recent years in addressing the problem of global poverty, but the problem isn't being solved fast enough. Through charitable giving, you can contribute towards more rapid progress in overcoming severe poverty.
>
> Even a donation [of] $5 can save a life by providing one mosquito net to a child in a malaria-prone area. FIVE DOLLARS could buy us a large cappuccino, and that same amount of money could be used to save a life.[14]

This argument has several elements, but notice again that Mengzian Extension appears to play a central role in the reasoning. Prior to testing, we coded all ninety arguments along twenty different dimensions, including one dimension reflecting something like Others' Shoes thinking ("Does the argument appeal to veil-of-ignorance reasoning or other perspective-taking thought experiments?"). Eight of the ninety arguments were identified in this category. The average donation after those arguments was $3.29 (out of $10), versus $3.43 for the remaining arguments – obviously not suggestive of an effect.[15] Unfortunately, we didn't preregister a coding scheme for Mengzian Extension. However, an independent coder classified six of the ninety arguments post-hoc as involving Mengzian Extension, enabling a post-hoc analysis. The average donation of the Mengzian Extension arguments was $3.86 versus $3.38 for the remaining arguments, comparable to the largest effect sizes among the preregistered predictors ($0.40–$0.60).[16]

Self to other is a giant cognitive, metaphysical, and moral divide. Nearby other to more-distant other presents a much smaller gulf. If, as Mengzi thinks and as generally seems plausible, virtually all ordinary people already care about some nearby others, then Mengzian Extension presents what appears to be a relatively smooth path to the expansion of that concern, a path grounded not in displaced egoism but rather in the good impulses that we all already possess.

There are many other approaches to expanding or deepening one's care for others. These can also be evaluated in terms of the different cognitive mechanisms involved, including 1) the developmental and social psychological importance of those mechanisms in ordinary moral thinking, 2) the practical effectiveness or ineffectiveness of attempting to bolster use of those mechanisms, and 3) the relative moral merit of thoughts and actions driven by those mechanisms. I will briefly describe five more such approaches to give a sense of the potential fruitfulness of comparative analysis.

Virtue Is Rewarded. On this view, the world has a moral order: wickedness is punished, virtue rewarded. This might work through "immanent" psychological or social mechanisms. Acting ethically might tend to feel good, while acting wrongly might tend to feel bad, or acting wrongly might tend to harm social relationships in the long term in a way that tends to outweigh its apparent short-term benefits. Alternatively, reward and punishment might be "transcendent" – in the afterlife. Children's stories and popular movies tend to have happy endings: the good guys thrive and the bad guys get their punishment. If seen as moral teaching, such stories implicitly draw on the Virtue Is Rewarded approach. This approach raises concerns about psychological, sociological, and/or theological plausibility: is virtue really rewarded? Ethically, one might also wonder about the ethical worth of actions performed for these motives: is an action in fact ethically good if it is motivated by desire for reward? And motivationally, in the long term, how effective is it to reward, or to remind people of the potential natural rewards of, good behavior?

Expanded Self. This approach grounds ethical expansion in self-interest in a very different way than does Virtue Is Rewarded. Expanded Self approaches aim to undermine the conception of the self as stopping at the boundaries of the skin. Arguably, there's a sense in which a mother might think of her baby as literally part of herself, so that in pursuing her baby's interest, she is pursuing self-interest – not indirectly, through expected benefits that will later come back to her (as in Virtue Is Rewarded), but directly. In the Chinese and other traditions, radical versions of this approach invite us to regard ourselves as "at one" with others, or with the entire world.[17] Less radically, suppose that being a spouse, or a parent, or a classicist, or a Luxembourger is central to your self-conception. The death of the loved one, or the collapse of your academic field or country, might be experienced as a direct blow to who you are. Social and personality psychologist William Swann's work on "identity fusion" attempts to quantify people's feelings of oneness with others and examine its correlates: for example, with expressed willingness to engage in extreme self-sacrifice.[18] There is, perhaps, something beautiful and admirable in feeling at one with others. However, oneness or identify fusion might be a demanding cognitive or motivational achievement that is unlikely to extend very far in practice except in unusual people or circumstances. And as with Virtue Is Rewarded, it is unclear how much ethical merit there is in acting from self-concern, even if the "self" is expanded.

Expanded In-Group. In-group–out-group or us-versus-them thinking appears to be pervasive across time and cultures. Though often associated with ethically troubling devaluation of those perceived as the out-group, in-group–out-group thinking can also plausibly be grounds for expanding concern and care, if the boundaries of the in-group can be expanded or if one can build up a conception of others as belonging to groups to which one also belongs. For example, one might start to think of friends as "like family," or one might embrace a cosmopolitan worldview that values citizens of other nations similarly to citizens of one's own nation. One might remind oneself that one's town, university, or subdiscipline is a community, an interacting group of "us" to which one owes concern. Like Mengzian Extension, Expanded In-Group thinking grounds ethical expansion directly in concern for others, but the basis is shared group belonging rather than relevant similarity.

Ethically Relevant Properties. Philosophical arguments often invite us to expand our concern by attending to ethically relevant properties of others. Classical utilitarianism, for example, treats people and animals as targets of moral concern to the extent they are capable of pleasure and suffering, and recommends acting so as to maximize the balance of pleasure over suffering regardless of whose pleasure or suffering it is.[19] Kantian deontology treats people as targets of moral concern in virtue of their rational capacities, arguing that we must not treat anyone as "mere means" to our ends rather than as an "end in themselves."[20] Expanding our concern for others by noticing that they have such ethically relevant properties as the capacity for suffering or rationality seems pure and admirable. However, a potential disadvantage to this approach is that it's empirically unclear to what extent relatively abstract philosophical thinking actually induces behavioral change.[21]

Learning by Doing. One might be pressured or enticed into performing acts of care for other people and, as a consequence, come to actually care for those people. This could operate through any of a variety of mechanisms. For example, in accord with cognitive dissonance theory, if the pressure or enticement is sufficiently subtle that one regards the action as voluntarily chosen, one might shift one's attitude about the value of the action, rather than regard oneself as having voluntarily done something for insufficient reason.[22] Or in accord with self-perception theory, one might observe that one is in fact performing acts characteristic of caring and conclude that one does in fact care.[23] More simply, one might discover the value of the act in the process of doing it: the worth of an ethical action might shine vividly through in a way one would not have anticipated in advance. Or good actions might simply become habitual or more readily come to mind as possibilities through repetition. Learning by Doing is thus not a single mechanism but a catch-all for a diversity of mechanisms, each of which have different empirical roots, practical consequences, and ethical flavor.

Psychology, philosophy, and the social sciences remain a long way from understanding the complex sources of moral motivation and care for others. The ethical and empirical issues are complex, and researchers cannot realistically assign people to different long-term moral development regimens and then measure the results with a valid moral/care-o-meter. I hope to have illustrated the potential interest in more carefully exploring the empirical, practical, and ethical dimensions of Mengzian Extension versus Others' Shoes / Golden Rule thinking, and to have shown how the same type of inquiry could extend to other broad approaches to the expansion of moral concern.

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ABOUT THE AUTHOR

Eric Schwitzgebel is Professor of Philosophy at the University of California, Riverside. He is the author of *The Weirdness of the World* (2024), *A Theory of Jerks, and Other Philosophical Misadventures* (2019), and *Perplexities of Consciousness* (2011). He also writes the philosophy of psychology blog The Splintered Mind.

ENDNOTES

[1] Bryan W. Van Norden, trans., *Mengzi: With Selections from Traditional Commentaries* (Hackett, 2008), 46. All Mengzi citations are to this edition.

[2] Kwong-loi Shun, "Moral Reasons in Confucian Ethics," *Journal of Chinese Philosophy* 16 (3–4) (1989): 317–343; Bryan W. Van Norden, "Kwong-loi Shun on Moral Reasons in Mencius," *Journal of Chinese Philosophy* 18 (4) (1991): 353–370; Philip J. Ivanhoe, "Confucian Self Cultivation and Mengzi's Notion of Extension," in *Essays on the Moral Philosophy of Mengzi*, ed. Xiusheng Liu and Philip J. Ivanhoe (Hackett, 2002), 221–241; David Wong, "Reasons and Analogical Reasoning in Mengzi," in *Essays on the Moral Philosophy of Mengzi*, ed. Xiusheng Liu and Philip J. Ivanhoe (Hackett, 2002), 187–220; Emily McRae, "The Cultivation of Moral Feelings and Mengzi's Method of Extension," *Philosophy East and West* 61 (4) (2011): 587–608; and Myeong-Seok Kim, "Moral Extension and Emotional Cultivation in Mèngzǐ," *Dao* 21 (3) (2022): 369–388. Contra Van Norden and Ivanhoe, and in accord with Shun and Kim, I am assuming that recognizing the need for consistency with one's reactions to nearby cases is central to Mengzian Extension. Either interpretative approach is probably consistent with Mengzi's sparse remarks; and Van Norden rightly notes that if consistency is the only motive, it could also be achieved by reducing one's concern for nearby cases.

[3] Originally presented in Peter Singer, "Famine, Affluence, and Morality," *Philosophy & Public Affairs* 1 (3) (1972): 229–243.

[4] For a detailed overview of the Golden Rule as an ethical principle, see Harry J. Gensler, *Ethics and the Golden Rule* (Routledge, 2013). On sympathy, see especially Adam Smith's classic "projective" account in *The Theory of Moral Sentiments*, ed. D. D. Raphael and A. L. Macfie (Oxford University Press, 1976); and Martin L. Hoffman, *Empathy and Moral Development* (Cambridge University Press, 2000). On simulation theories, see Luca Barlassina and Robert M. Gordon, "Folk Psychology as Mental Simulation," *Stanford Encyclopedia of Philosophy* (Summer 2017 Edition), https://plato.stanford.edu/archives/sum2017/entries/folkpsych-simulation.

[5] Hoffman, *Empathy and Moral Development*.

[6] See also Paul L. Harris, "From Simulation to Folk Psychology: The Case for Development," *Mind & Language* 7 (1–2) (1992): 120–144; Christina Schwenck, Bettina Göhle, Juliane Hauf, et al., "Cognitive and Emotional Empathy in Typically Developing Children: The Influence of Age, Gender, and Intelligence," *European Journal of Developmental Psychology* 11 (1) (2014): 63–76; and Leïla Bensalah, Stéphanie Caillies, and Marion Anduze, "Links Among Cognitive Empathy, Theory of Mind, and Affective Perspective Taking by Young Children," *Journal of Genetic Psychology* 177 (1) (2016): 17–31. Absent the capacity for sophisticated hypothetical adjustments, substantial error would be expected even on a cognitively economical "simulation theory" approach to perspective-taking that redeploys egocentric mechanisms to understand others. See Alvin I. Goldman, *Simulating Minds: The Philosophy, Psychology, and Neuroscience of Mindreading* (Oxford University Press, 2006); and Shannon Spaulding, "Cognitive Empathy," in *The Routledge Handbook of the Philosophy of Empathy*, ed. Heidi Maibom (Routledge, 2017), 13–21.

[7] Dubbed the "Literal GR Fallacy" in Gensler, *Ethics and the Golden Rule*.

[8] For example, see the images in Frans de Waal, *Good Natured: The Origins of Right and Wrong in Humans and Other Animals* (Harvard University Press, 1996), 213; and Richard B. Primack and Philip J. Cafaro, "Environmental Ethics," in *Encyclopedia of Biodiversity*, ed. Simon

Asher Levin (Elsevier, 2007). Others in the Western tradition do seem to start the circle with concern for family members, notably Peter Singer, *The Expanding Circle: Ethics, Evolution, and Moral Progress*, 2nd ed. (Princeton University Press, 2011).

[9] Jean-Jacques Rousseau, *Emile, or On Education*, trans. Allan Bloom (Basic Books, 1979), 235.

[10] Confucius, *The Analects*, trans. Edward Slingerland (Hackett Publishing), 12.2, 126. See also ibid., 5.12, 44; and compare with Mengzi 4A9, 94. The negatively phrased Silver Rule might differ importantly in content from the positively phrased Golden Rule, suggesting only a negative duty not to harm and not also a positive duty to help.

[11] For a review of the literature on motivating charitable giving, see René Bekkers and Pamala Wiepking, "A Literature Review of Empirical Studies of Philanthropy: Eight Mechanisms That Drive Charitable Giving," *Nonprofit and Voluntary Sector Quarterly* 40 (5) (2011): 924–973.

[12] Methods and preliminary results of Phase 1 are available at Eric Schwitzgebel, "Contest Winner! A Philosophical Argument That Effectively Convinces Research Participants to Donate to Charity," The Splintered Mind, June 23, 2020, https://schwitzsplinters.blogspot.com/2020/06/contest-winner-philosophical-argument.html.

[13] This argument was authored by Matthew Lindauer and Peter Singer.

[14] This argument was submitted by Alex Garinther, drawing most of its text from the "Rational Appeal" stimulus employed in Matthew Lindauer, Marcus Mayorga, Joshua D. Greene, et al., "Comparing the Effect of Rational and Emotional Appeals on Donation Behavior," *Judgment and Decision Making* 15 (3) (2020): 413–420.

[15] $t[9021] = -1.26$, $p = 0.21$.

[16] $t[9021] = 3.78$, $p < 0.001$. A preliminary write-up is available as Eric Schwitzgebel, "What Types of Argument Convince People to Donate to Charity? Empirical Evidence," The Splintered Mind, February 16, 2024, https://schwitzsplinters.blogspot.com/2024/02/what-types-of-argument-convince-people.html.

[17] Philip J. Ivanhoe, *Oneness: East Asian Conceptions of Virtue, Happiness, and How We Are All Connected* (Oxford University Press, 2017); and Philip J. Ivanhoe, Owen Flanagan, Victoria Harrison, et al., eds., *The Oneness Hypothesis: Beyond the Boundary of Self* (Columbia University Press, 2018).

[18] William B. Swann and Michael D. Buhrmester, "Identity Fusion," *Current Directions in Psychological Science* 24 (1) (2015): 52–57.

[19] Walter Sinnott-Armstrong, "Consequentialism," *Stanford Encyclopedia of Philosophy* (Winter 2023 Edition), https://plato.stanford.edu/archives/win2023/entries/consequentialism.

[20] Immanuel Kant, *Groundwork of the Metaphysics of Morals*, revised edition, ed. Mary Gregor and Jens Timmermann (Cambridge University Press, 2012); and Larry Alexander and Michael Moore, "Deontological Ethics," *Stanford Encyclopedia of Philosophy* (Winter 2021 Edition), https://plato.stanford.edu/archives/win2021/entries/ethics-deontological.

[21] This is especially suggested by work on the moral behavior of ethics professors, which appears to be similar, across a wide variety of measures, to the moral behavior of professors not specializing in ethics, reviewed in Eric Schwitzgebel and Joshua Rust, "The Behavior of Ethicists," *A Companion to Experimental Philosophy*, ed. Justin Sytsma and Wesley Buckwalter (Wiley Blackwell, 2016), 225–233.

[22] For a recent review, see Eddie Harmon-Jones and Judson Mills, "An Introduction to Cognitive Dissonance Theory and an Overview of Current Perspectives on the Theory," in *Cognitive Dissonance: Reexamining a Pivotal Theory in Psychology*, 2nd edition, ed. Eddie Harmon-Jones and Judson Mills (American Psychological Association, 2019), 3–24.

[23] The classic statement of self-perception theory is Daryl J. Bem, "Self-Perception Theory," *Advances in Experimental Social Psychology* 6 (1972): 1–62. Explicit praise by others for one's altruistic traits might further enhance this effect, as in Rosemary S. L. Mills and Joan E. Grusec, "Cognitive, Affective, and Behavioral Consequences of Praising Altruism," *Merrill-Palmer Quarterly* 35 (3) (1989): 299–326. Though the relationship between praise and motivation is likely complex rather than unidirectional; see Jennifer Henderlong and Mark R. Lepper, "The Effects of Praise on Children's Intrinsic Motivation: A Review and Synthesis," *Psychological Bulletin* 128 (5) (2002): 774–795.

Divine Care: Care as Religious Practice

Zachary Ugolnik

This essay compares Christian and Buddhist narratives of care in conversation with anthropological work on relationships mediated through the divine. Within these traditions, care is a divine activity in which humans participate by engaging in caregiving practices. Gods care, receive care, and elevate care to a sacred action. I argue that the act of caring, as a religious practice, calls for an existential reflection upon the boundaries of the self, and includes not only the giver and receiver of care but also other humans and the divine. Studying care in religious contexts helps us better understand the social science of care, even in secular spaces. I conclude with lessons we can learn from religious institutions to better cultivate expanded networks of care in civil society, such as infrastructure to support relationships between strangers and across generations.

A Byzantine icon of Mary, the mother of Jesus, depicts her embracing baby Jesus cheek to cheek, as we might expect a mother to pose with her newborn. "The Virgin of Vladimir" (Figure 1), roughly dated to the twelfth century, is perhaps the most famous example, but depictions of Mary cradling Jesus continue to be venerated in Orthodox Christian homes and churches throughout the world. Jesus's eyes follow his mother's face, while Mary returns the gaze of the viewer with a solemn but tender expression. She is known in this tradition as the "Theotokos," or God-bearer, and provides a model of what it means to be human and bear the divine: to care. I begin with this example to illustrate the fundamental importance of care and caregiving throughout religious traditions.

My argument is simple. According to many religious traditions, the divine cares and is cared for. Whether it's Jesus caring for his mother or his mother – who takes on divine attributes – caring for him, and engaging the viewer in that embrace, care is a relationship grounded in the realm of the divine or absolute. Care is not just a relationship between the giver and receiver of care, nor is it simply an interaction between the carer, the cared-for, and the divine. It is often something more. Care demonstrates sacred qualities and allows the actors involved to participate in a larger network of relationships with human and nonhuman agents (seen and unseen, present and absent). The act of caring challenges the boundaries of the self and can be both intensively individualistic, even lonely, as well as intimately communal. In brief, care as a religious practice orients those

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Figure 1
Virgin of Vladimir

Tempera on panel, 104 cm by 69 cm (41 in by 27 in). An unknown artist painted it around 1131, likely in Constantinople.

who give or receive it toward a broader world of others: human, nonhuman, and divine.

Most Americans continue to identify as religious or spiritual. A Pew Research study conducted in 2023 reports that a combined 80 percent of Americans surveyed think of themselves as spiritual, religious, or a combination of both, while about 21 percent think of themselves as neither.[1] Gallup polls over the six-year period of 2017 to 2022 find an average of 20 or 21 percent of Americans say they have no formal religious identity, a group often referred to as "nones."[2] In many contexts outside the United States, the premise of the question – that "religion" is something you can gain, lack, or have none of – might come off as odd. Indeed, as many historians argue, the meaning of religion as a category is more culturally specific than cross-cultural.[3] Regardless of the labels and language we use to describe religious practices or identity, humans are disposed to find meaning in their relationships, especially relationships of care.

For many faith-based counselors and hospital chaplains, for example, religious practice and principles inform the care they give others. Models of care are often based on models of the divine or absolute. Care also serves as a major source of meaning for individuals who do not identify with a particular religious tradition. These traditions, nonetheless, offer insight into how care is meaningful even when it is not explicitly associated with religious institutions.

Religious institutions also do a lot of caregiving. This includes the services provided by local and international religious bodies (such as churches, synagogues, mosques, and temples), charitable organizations affiliated with them (Catholic Relief Services, Jewish Family Services, and the Salvation Army, for instance), and other nonprofits informed by religious principles but whose function is largely perceived as secular (Habitat for Humanity, YMCA, and Good Will may be the most well-known examples in the United States). The United States relies upon these services of care not provided by the state or for-profit markets. Indeed, religious ideals are so embedded in the nonprofit sector, it can sometimes be difficult to determine whether an organization should be classified as "faith-based."[4] We should not exaggerate the successes and failures of religious institutions any more than we do for other types of organizations. But it's not a coincidence that so much care is provided by religiously informed institutions. Religious ideas and practices that motivate care deserve our attention.

Cognitive science often approaches the phenomenology of religion by illustrating several human tendencies, tendencies that are also relevant for the role of care in our lives. First, we see human agency everywhere. My young daughters, for example, have many stuffed animals they talk to, cuddle, and sometimes cover with Band-Aids. We're good at caring for what cognitive scientist Pascal Boyer calls "imagined or absent" partners.[5] These can include stuffed animals, long-distance grandparents, deceased relatives, fictional heroes, AI chatbots, and imaginary friends. The divine is often put in this category. Second, children often think that what they know the world knows, projecting a degree of omniscience upon others. Stories told by children often assume their own internal knowledge is shared by all adults. The divine, some argue, is the personification of these cognitive tendencies to project ourselves and our knowledge outward.

This assumes, however, that gods are human-like and omniscient in the same way that humans understand being and knowledge. For many faith traditions, however, the realm of the divine is mysterious and not entirely anthropomorphic. Explaining divinity as a projection of humanity or a composite of social ideals misunderstands this complexity. This is particularly salient when accounting for the importance of relationships with and mediated through the divine.

Understandings of care and religious practice, of course, vary in time and place. The academic discipline of religious studies carefully avoids essentializing a particular tradition as homogenous and uncontested across history. In what follows, I highlight the role of care found in a selection of religious sources, primarily drawn from the Christian and Buddhist traditions. These religious discussions of care – which are influential but not universal – help us understand and study the social science of care, including in secular spaces.

In many religious traditions, care is a sacred and divine activity. Their narratives emphasize this point. In the Christian tradition, love (or *agape* in Greek) and relationships of care are embedded in the theological concepts of the incarnation and the trinity, ideas crystalized by the fourth century. As early Christians read the book of Genesis, many interpreted Cain's murder of his brother as introducing death into the world, severing humanity's connection to the divine and its enjoyment of eternal life in Eden.[6] In response and out of love, God becomes human. We read in the Gospel of John: "For God so loved [*agape*] the world that he gave his only Son, so that everyone who believes in him may not perish but may have eternal life" (John 3:16).[7] In a divine way that exists outside of time, God's love – or care we might say – for the world initiated the incarnation of Jesus born to a young mother named Mary. Once grown, Jesus, as the divine child of God, sacrifices himself out of care for the world: that is, he "came not to be served but to serve, and to give his life a ransom for many" (Matthew 20:28). Through his death on the cross and subsequent resurrection, Jesus defeats "death by death," as the hymn sung at Easter services in Orthodox churches declares, granting life to all.[8] Jesus calls humans to love not just your mother or brother but also your enemies, and to love thy neighbor as thyself. We can read this simplified theological narrative as a story of care, punctuated by existential meditations on birth, death, and the boundaries of the self.

Love, or *agape*, is central to Christian ontology. The divine sets aside a part of itself to love, and care for, another through its incarnation into the world and Jesus's offering of himself on the cross – calling humanity to love the other as oneself and thus reengaging the divine in the process. In Paul's epistle to the Romans, often cited by St. Augustine and Martin Luther, the holy spirit is described as the medium of God's love: "God's love has been poured into our hearts through the Holy Spirit that has been given to us" (Romans 5:5). Christian theologians in the early centuries debated the meaning of these passages, but many arrived at the conclusion that God is three in one: a father, a son, and the holy spirit. For many Christians, the relation between the persons of the Holy Trinity defines their very being. Humans, as made in the image of the divine, are also relational in their ontology. Not all Christian denominations are trinitarian, but all see Jesus occupying a special role as a savior or redeemer of humankind: Jesus cares. Or, to quote the first epistle of John, "God is love" (1 John 4:8 and 16). We can philosophically parse the distinctions between acts of love, care, and redemption, but Jesus packages all of them in one person. Network theorists would summarize these roles as God being both the vertex or node and simultaneously the edge or link. God can be both an agent of love (the carer and cared-for) and the relationship itself, connecting other agents. The divine cares and *is* care.

In the Mahayana Buddhist tradition, care is intertwined with the notion of *Bodhi*, or awakening, which encompasses compassion for others and a recognition of our interdependence. In the accounts of the life of the historical Buddha, Siddhartha Gautama, contemplating the age, sickness, and death of others catalyzes Siddhartha's resolve to set forward on a path of awakening. Receiving care is what finally allows him to attain it. In one telling, he is born to a king and queen in India, and a seer arrives at the palace sensing "the birth of him who would put an end to birth."[9] The king, suspicious of such prophecies, shelters Gautama from the suffering of the world. But once mature, Gautama ventures outside the palace walls and encounters an old man, a sick man, and a corpse. These events shake the foundations of Buddha's understanding of the physical world and its permanence. Finally, he sees an ascetic and leaves the palace to emulate him. But after practicing austere self-denial, he realizes asceticism must be balanced with moderation, which leads him to bathe in a river. A cowherder's daughter, Nandabala, notices him and offers him rice milk, which he accepts. Only after this act of care, and a recognition of his dependence upon it, does he have enough sustenance to be awakened.

While meditating under the shelter of a tree, he realizes existence is suffering, the source of suffering is craving, to stop suffering we must stop craving, and to attain this cessation we follow a particular path. We must act, speak, and live in accordance with compassion and wisdom. In this way, sentient beings can escape the cycle of birth, aging, sickness, and death. Especially in the Mahayana tradition, humans can entreat and aspire to become a bodhisattva, or awakened (*bodhi*) being (*sattva*), who vows to save all sentient beings before fully escaping themselves. In this simplistic rendering, much like the Christian narrative above, we see a story of sacred or divine care with meditations on mortality and the illusion of independence. Buddhas or bodhisattvas provide not just exemplars of how to *do* or receive care but elevate care to a sacred activity.

As the Mahayana tradition developed, some schools articulated the many aspects of the Buddha as falling into three categories or "bodies," known as the "three-body" or Trikāya theory, systematized by the Yogacara school around the beginning of the fourth century.[10] For example, the physical manifestation of a buddha's body, such as Siddhartha Gautama or the historical Buddha, is one type: the Nirmaṇakāya. Once a bodhisattva attains their vows and reaches a celestial state, they occupy a second type: the Sambhogakaya, or enjoyment body. When mothers in Japan make an offering on behalf of their deceased children to the Bodhisattva Kṣitigarbha, or Jizō in Japanese, they are entreating a celestial body of a buddha or Sambhogakaya. The final or ultimate body of a buddha is the Dharmakaya, or the truth itself. Each of these bodies corresponds to stages of awakening, from the physical to the celestial to the ultimate. This framing is obviously very different from a Christian Triune God and comparable notions of the absolute. But the Trikāya approach allows Mayahana Buddhists to conceptualize the manifestations of a buddha as simultaneously an agent of care or compassion, be it the historical Buddha or a celestial bodhisattva, as well as a pervasive truth itself beyond notions of separate agents.

We find a similar notion of care in the text known as the "Monk with Dysentery" in the Pāli Canon, the standard collection of Pāli language scriptures in Theravada Buddhism.[11] While on a walk with his venerable attendant Ananda, the Buddha comes upon a monk lying amidst his own urine and excrement. They wash him and place him in a bed. Buddha then asks the sick monk why other monks have not yet cared for him and the monk responds: "I don't do anything for the monks, lord, which is why they don't attend to me."[12] When the other monks are faced with this same question, they offer the same reasoning: he doesn't do anything for them, so they don't do anything for him. The Buddha responds: "Monks, you have no mother, you have no father, who might tend to you. If you don't tend to one another, who then will tend to you? Whoever would tend to me, should tend to the sick."[13] The Buddha sets up the sangha, or community of monks, as a proxy for the family and the care responsibilities within it, but also makes the sick a proxy for himself – a gesture that could be read as applying to all humanity. He thus rejects a quid pro quo transaction for care. Care is of a different order.

What is also notable about this sutra is the ethic of care proposed in the commentary that follows. The Buddha outlines five qualities that make a carer or nurse suitable or unsuitable to care for the sick: competency in mixing medicine, knowing what is good or bad for the patient, tolerance for cleaning up bodily fluids, motivation by good will rather than personal gain, and the ability to encourage the patient with discussions of dharma. Additionally, the Buddha describes five qualities that make a sick person easy to care for: they do things that improve their condition, they know how much of a thing to do, they take their medicine consistently, they communicate their symptoms honestly, and they can endure pain and unpleasant sensations. The Buddha thus offers advice not only on how to be a good carer but also on how to receive that care. Care is not simply an action done *to* someone else but is inherently dynamic.

This aspect of the "Monk with Dysentery" is evocative of the parable in Matthew 25, when Jesus recounts a tale of judgment by a king upon an angel-flanked throne – read by Christians as a reference to himself when his glory is revealed. The king, like the Buddha, is not always who he seems. To those judged favorably, the king explains that they fed him when hungry, gave him drink when thirsty, welcomed him when a stranger, clothed him when naked, looked after him when sick, and visited him when in prison. Not recalling any of this, they are surprised. He explains, "just as you did to one of the least of these that are members of my family, you did it for me" (Matthew 25:40). Those judged harshly are equally caught off guard, asking themselves what opportunities they had to feed, drink, clothe, or care for the king. He explains, "just as you did not do it to one of the least of these, you did not do it to me" (Matthew 25:45). Those judged favorably and harshly did not act with an expectation of reward or punishment. There is still a transaction in the sense of a reward for the carers of the vulnerable, but it occurs in the age to come. For now, care collapses heaven and earth.

In both the absence of Jesus and the Buddha, the vulnerable serve as a substitute for the divine as a receiver of human care. If humans cannot tend to Jesus or the Buddha in their presence, they can care for the old and sick. We might describe this as a variation of what philosopher Eric Schwitzgebel calls "extending one's concern from nearby others to more distant others," a strategy articulated by the Chinese philosopher Mengzi.[14] In this case, the divine is what is nearby or more easily relatable. These acts of care, however, are also transformed through the divine doing care itself. The Buddha, along with Ananda, tends to the sick monk, cleaning him and finding him shelter. Jesus, in the Gospel of John, washes the feet of his disciples (John 13:1–17). When understood from within these traditions, these stories are not merely examples to follow. Because the divine *do* care, care constitutes transcendent qualities beyond the giver and receiver.

Within many religious traditions, care is a relationship nested within other relationships. The work of Kimberley C. Patton, a historian of religions, helps illustrate the implications of care's sacredness. Patton analyzes multiple examples in religious traditions in which the gods engage in religious acts themselves, such as vases in the classical Greek tradition depicting Olympian gods making sacrifices to gods.[15] Why would gods need to make a sacrifice if a sacrifice is a god-human transaction? Patton examines how these acts help reframe our typical understanding of religious devotion. Many social scientists assume that the divine realm reflects the human realm. In this model, devotion begins with humans and projects onto an alternative reality made in our image. Many religious traditions, however, understand religious practices, such as sacrifice or prayer, as divine activities. From this emic perspective, Patton explains, "religion has its source, not only its object, in the gods."[16] Humans do not simply engage in these activities *toward* the divine but engage the divine through doing the activities themselves. Humans not only make sacrifices *to* Gods but sacrifice because Gods sacrifice; humans not only pray *to* the divine but pray because the divine prays. Finally, I argue, according to many religious traditions, care is a divine activity or relationship in which humans participate by engaging in caregiving practices.

This may appear a minor difference by nature of adopting a perspective from within a tradition rather than from one grounded in the social sciences. Tanya Luhrmann's anthropological approach, I think, helps illustrate why this is not the case. Luhrmann's field work focuses primarily on the evangelical Christian community in the United States but also pulls from various traditions to explore how "people create relationships with gods and spirits."[17] In her words: "As people practice, as the invisible other becomes more real to them, people remake themselves in relationship with that other. These relationships can be intensely intimate and drenched in feeling – something not quite captured by the word 'belief.'"[18] Luhrmann calls this a "paracosm" or a "private-but-shared imaginative world," a description that I believe also applies to the spaces cultivated through care as a religious practice.[19]

Ethnographic evidence supports this. Anthropologist Anna Corwin, in her ethnographies of Franciscan nuns in the United States, records accounts of many elderly nuns who experience the presence of Jesus or the Holy Trinity in moments of care and suffering.[20] This is often articulated in terms of support and/or merging of identities. But it's often not just the two agents involved in giving or receiving care, in how we might think of Martin Buber's notion "I and Thou."[21] "I and We" is often more accurate in the everyday experiences of caregiving as a religious practice and in many accounts of divine presence. For example, Corwin and her coauthor Cordelia Erickson-Davis cite an interview in which they ask a nun, Sister Rita, what it feels like to encounter God in the morning, as she claims, and she explains: "He is here in every part of us. He's here with you as much as He's here with me. That's where I am."[22] Relationships with the divine imply relationships with others. Schwitzgebel might classify this approach as an "expanded self," but ideally this expansion includes a larger notion of one's in-group.[23] Particularly in the context of care, these experiences orient the self not just toward the divine as a singular object but toward an expanded notion of "we."

In the Christian context, this is well articulated in the New Testament conception of God as love. The first epistle of John explains that "Whoever lives in love lives in God, and God in them" (1 John 4:16) and also that "Anyone who loves God must also love their brother and sister" (1 John 4:21). Whether it's named the divine as a noun or love as a verb, each begets itself and the other. One relationship of love and care is necessarily linked to other relationships of love and care. In this sense, for many religious traditions, care is not only a relationship between the carer, the cared-for, and the divine, but extends into a wider network. This might include a pantheon of angels, saints, bodhisattvas, ancestors or friends, family members, pets, animals, and the natural world. When care is understood as a sacred activity or relationship, then all relationships of care can connect. Each engages a space shared between ourselves and the world around us. Whether we call it the divine itself or refer to it in a psychological sense as a "paracosm," there's connective tissue between our relationships of care that extends beyond the scope of one person's imagination. My care for my child's friend, a neighbor, or even a stranger implicates my care for my children and close relations. When I witness my neighbor's daughter stopping by to check on her elderly mom who lives a few doors down, I can imagine that their network of care overlaps with my own. Religious traditions provide theological constructs to invoke this shared space, but this can be the case even for the nonreligious when care and the feelings surrounding it take on transcendent qualities.

Some communities, however, are better than others at advocating for how care should be applied to outsiders, especially those beyond the nuclear family. My care for my children, for instance, in some contexts, could make me indifferent to those who might not directly benefit us or make me hate others from whom I feel threatened. The religious sources reviewed in this essay clearly do not advocate that type of treatment. Indeed, the Gospel of Luke encourages humans to do more than simply "do good to those who do good to you" (Luke 6:33). And in Matthew, we are told to love our enemies and expect nothing in return (Luke 6:27; Matthew 5:43). This selfless type of care is superior to care for the sake of self-advancement at the expense of others or out of fear of retribution. Abrahamic traditions, especially, emphasize the value of hospitality for strangers. In Genesis 18, Abraham and Sarah host three mysterious guests who are revealed to be divine representatives.[24] Giving hospitality to strangers, giving them care, evokes a divine or larger presence. In the Mahayana tradition, humans, ultimately, are not to emulate a bodhisattva's care for all sentient beings to get something out of it. Rather, humans should care to get out of the cycle of reward and punishment. The expectation of nonreciprocity often serves as a source of meaning.

However, these traditions also acknowledge that though we should work toward the ideal of expecting nothing in return, in the course of our everyday experiences, even the most pious can alternate their motivations. We might care for our children or our elderly parents out of fear of being shamed, for the compliments of our friends, or simply for the sake of doing it – all in the same day. Even if the highest ideal is not achieved all the time, care as a practice, something we return to day-to-day, gives us a taste of what it's like to act without selfish expectations. Care, in this sense, can give us purpose and connection beyond the relationships in front of us.

Finally, care is an existential challenge. Care often requires us to address our own desires and limitations. And it's not always pleasant. Many religious traditions articulate the dynamic trajectories involved in care toward others, on the one hand, and toward notions of the self or absolute, on the other.

The Mahayana Buddhist tradition makes this point very explicit in the initial vow of a bodhisattva, for instance, as recorded in the Diamond Sutra. The vow appears in two parts. First, it begins: "As many beings as there are in the universe of beings, comprehended under the term 'beings'... all these I must lead to Nirvana, into that realm of Nirvana that leaves nothing behind."[25] "Any yet," it continues, "if in a bodhisattva the notion of a 'being' should take place, he could not be called a 'Bodhi-being.'" A bodhisattva vows to save all sentient beings and simultaneously recognizes that the notion of an independent self is ultimately an illusion. We see a push and pull toward others and toward the absolute.

We can map these orientations, but inverted, onto the two "greatest" commandments offered by Jesus in the Gospel of Matthew (22:37–39):

> "You shall love the Lord your God with all your heart, and with all your soul, and with all your mind." This is the greatest and first commandment. And a second is like it: "You shall love your neighbor as yourself [*hōs seauton*]."

They, too, are a couplet. Loving the Lord with your whole self, which we might describe as an emptying of selfish desire, is the greatest commandment, but loving your neighbor with that same self is like it.[26] In both, there is an offering of the self toward the Lord, or the absolute, as well as toward others – illustrating how these trajectories converge. These Christian and Buddhist passages remind us that a certain degree of self-sacrifice is inevitable in our care for others. Care is inherently self-reflexive by nature of being self-less. This is quite different from beginning with what I want and projecting that onto others, as Schwitzgebel characterizes some models of the Golden Rule.[27] In the context of religious practice, just as the gods offer sacrifices to themselves, humans participate in that cycle of self-offering through the sacrifice of care.[28] Care extends into the other or the absolute, redrawing the boundaries of where the self begins or ends. But this process is not always easy.

Care, for example, requires time. Time nurturing others shortly after birth or near death. Time helping others to develop into adults or live well as elders. Time doing other people's laundry. Time thinking about time, contemplating the marvels of birth, aging, and death. Or time being too busy to think about oneself at all. These tropes pervade religious narratives, especially literature surrounding care. The ability of care to nudge us to meditate upon our existence forms one ingredient in its recipe of meaning, in addition to the element of self-sacrifice. Perhaps as a result, care can be extremely boring but can also make us want seconds to never end, while holding a child, a friend, or grandparent, recognizing we and those we care for will not always be present in the same way. In the Byzantine icon of Theotokos, for example, Mary's eyes convey joy and sadness, as she looks beyond her child to the viewer, who knows her child will leave earth before her.

Care can be both fulfilling and self-denying. It can be a very lonely experience but also orient the self to commune better with the world around it. Caring for your elderly spouse with Alzheimer's who doesn't recognize you; caring for your newborn child in the middle of the night; a hospital chaplain sitting with a stranger in silence: these are solitary, even reflective, experiences, but also communal. Many of us know from experience that care can be a challenging endeavor in which one does not always feel fulfillment, spiritual or otherwise. Surah 17:23 of the Qur'an tells the reader to "be kind to your parents. If either or both of them reach old age with you, say no word that shows impatience (*uff*) with them," using the Arabic onomatopoeic interjection "Uff!" – a sentiment many of us can relate to.[29]

People often feel exhausted physically and psychologically and find themselves demonstrating their worst qualities, thinking "bad thoughts" about their elderly parents or young children for example. Anecdotally, a priest once told me that, during confession, many long-term caregivers will articulate the frustration they feel for themselves and those they care for. At the same time, in the ebbs and flows of these practices, care can provide a means through which these same individuals feel connected with a reality larger than these relationships. This connection, in many ways, depends upon care's existential qualities and what it demands of the self.

These qualities are important to consider, even for the nonreligious, and offer insights into how we might design policies that encourage meaningful care throughout society. The sacred aspects of care can be restated in nonreligious terms. To say that care is rooted in the divine realm is to say that care is not reducible to self-interest. Care extends beyond the subjective experience of the self. Care is not simply projected from a place that begins in our minds. It is a dynamic and embodied relationship. Many would describe their relationship with their children, spouse, or grandparents as larger than themselves and even those involved.[30] Care, especially, helps illustrate the inherent and embodied connection between thinking and doing in regard to the sacred, whether it's named "religious" or not. The meaning we attribute to care is often not rooted in the beliefs we have *about* care but in living out the relationships themselves. The emotional attachments associated with care are often byproducts of *doing* care. Alison Gopnik explains, "We don't care for others because we love them: we love them because we care for them."[31]

This reframing, based on theology or the social sciences, reminds us to recognize the feedback loop between process and outcome. Dōgen (1200–1253), the Japanese Zen Buddhist teacher, thought of practice and enlightenment, or cultivation and verification in an alternative translation, as two sides of the same thing.[32] When the divine is understood not just as an object but as a link between agents, we arrive at a similar conclusion. The process of engaging your neighbor includes the outcome of engaging the divine. The process of engaging the divine includes the outcome of engaging your neighbor. The means becomes a goal. For policy, this would mean adopting relationships of care, in all their shapes and sizes, as a desired outcome. Indeed, the U.S. Surgeon General's report on the loneliness epidemic prioritizes these types of connection.[33]

We need more social programs that encourage care relationships between strangers. Places of worship do this very well. Even superficial or brief interactions with strangers can be very psychologically rewarding.[34] Psychologist Ashley Thomas and her team's research on how infants and toddlers "use saliva sharing to infer close relationships" explains how the Christian custom of sharing a spoon or chalice during the sacrament of communion might help children see the stranger they encounter week-to-week in church as part of their larger in-group, despite limited interaction.[35] Many Christian communities paused or adapted these practices during the peaks of the COVID-19 pandemic. Nonetheless, we know sharing drinks and meals with others creates feelings of solidarity. Community meals, and other activities that engender connection beyond the context of economic transaction, are worth a city's budget. As an additional metric of effectiveness, governments should begin measuring how often programs and policies place citizens in relation with one another, however briefly.[36]

We also need more institutional infrastructure to support intergenerational relationship building. Religious communities, in part due to their aging populations, are great places to meet older individuals. AmeriCorps, for example, sponsors a foster grandparent program that partners senior citizens with children in under-resourced communities, in addition to their senior companion program that connects senior volunteers with other seniors.[37] We need more programs like these that connect aging populations not just with children but also with young adults, who might be craving these types of relationships. Since many families are neo-local, moving to new places from one generation to another, we need more programs connecting all ages of society rather than segregating ourselves by life stage. This might mean experimenting with providing college credits to students who engage with local elderly communities or incentivizing built environments and housing projects that encourage interaction with residents of elder-care facilities. Germany, for example, has funded over five hundred multigenerational meeting places since 2012, providing a shared space where neighbors can gather for a meal, toddlers can crawl around, and retirees can play checkers.[38] They have also experimented with daycare centers coupled with retirement homes.[39] Policymakers can use these examples and the best practices of religious communities to imagine ways to bridge generations and integrate infant and elderly care. Places of religious practice have and will continue to offer shared space for the young and old in their respective communities, even as engagement in religious institutions appears to be waning in the United States. Civil programs can revitalize this function in accord, not competition, with the explicitly religious.

Finally, we need to recognize that care is an existential challenge and not always pleasant (both physically and psychologically). Because caregiving challenges the boundaries of the self, in its most ideal form, it opens the self up to relationships beyond what is in front of it: be it a pantheon of spirits, saints, and family members, or strangers, organic life forms, and the material of the universe itself. It can make someone particularly vulnerable for abuse but also orient them to find meaning in their connection to the world around them. Care has power. As a society, culturally and institutionally, we need to invest in healthy relationships of care, recognizing care's potential for exponential benefit and the value of the relationships themselves.

ABOUT THE AUTHOR

Zachary Ugolnik is Program Director at the Center for Advanced Study in the Behavioral Sciences at Stanford University. Previously, he served as Assistant Professor at Mount Allison University and a Mellon Interdisciplinary Fellow at Columbia University. His work has appeared in such publications as *Religion & Literature* and *Harvard Divinity Bulletin*.

ENDNOTES

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[4] A study based on U.S. tax filings in 2015 found that 15 percent or more of all nonprofits in the sectors of education, health, human services, international aid, and mutual benefit contained explicit religious language in their mission statement, excluding those organizations whose primary activity is religious. Brad R. Fulton, “Religious Organizations: Crosscutting the Nonprofit Sector,” in *The Nonprofit Sector: A Research Handbook, Third Edition*, ed. Walter W. Powell and Patricia Bromley (Stanford University Press, 2020), 579–598, https://doi.org/10.1515/9781503611085-035.

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[6] For a discussion of early Christian commentaries, informed by Genesis, on the death and mourning of children, see Maria E. Doerfler, “East of Eden,” in *Jephthah’s Daughter, Sarah’s Son: The Death of Children in Late Antiquity* (University of California Press, 2019).

[7] All New Testament references cite the New Revised Standard Version.

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[11] “Kucchivikara-vatthu: The Monk with Dysentery” (Mahavagga 8.26.1–8), trans. Thanissaro Bhikkhu, Access to Insight, http://www.accesstoinsight.org/tipitaka/vin/mv/mv.08.26.01-08.than.html (accessed February 16, 2024). See also the retelling by Thich Nhat Hanh in chapter fifty-five of *Old Path White Clouds* (Parallax Press, 1987).

[12] Ibid.

[13] Ibid.

[14] Eric Schwitzgebel, “Imagining Yourself in Another’s Shoes versus Extending Your Concern: Empirical & Ethical Differences,” *Dædalus* 154 (1) (Winter 2025): 135, https://www.amacad.org/daedalus/imagining-yourself-anothers-shoes-versus-extending-your-concern-empirical-ethical-differences.

[15] See, for example, figures 24 and 25 in Kimberley C. Patton, *Religion of the Gods: Ritual, Paradox, and Reflexivity* (Oxford University Press, 2009), 61.

[16] Ibid., 308.

[17] T. M. Luhrmann, *How God Becomes Real: Kindling the Presence of Invisible Others* (Princeton University Press, 2020), xiv.

[18] Ibid.

[19] Ibid., 25.

[20] Anna I. Corwin and Cordelia Erickson-Davis, "Experiencing Presence: An Interactive Model of Perception," *HAU: Journal of Ethnographic Theory* 10 (1) (2020), https://doi.org/10.1086/708542; and Anna I. Corwin, *Embracing Age: How Catholic Nuns Became Models of Aging Well* (Rutgers University Press, 2021).

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[22] Corwin and Erickson-Davis, "Experiencing Presence," 178.

[23] Schwitzgebel, "Imagining Yourself in Another's Shoes versus Extending Your Concern."

[24] The biblical scene of the hospitality of Abraham and Sarah (Genesis 18:1–15) is used in Orthodox Christian tradition as the setting for the icon representing the Holy Trinity.

[25] *Buddhist Scriptures*, selected and trans. Edward Conze (Penguin Books, 1959), 164–165.

[26] Love can be distinct from care. In my reading of these commandments as a couplet, however, I assume this type of all-consuming love and selflessness includes care.

[27] Schwitzgebel, "Imagining Yourself in Another's Shoes versus Extending Your Concern."

[28] Patton calls this reflexive aspect of religious devotion performed by gods "Divine Reflexivity." Patton, *Religion of Gods*, 12. From the perspectives of these traditions, when humans perform similar acts of devotion, they participate in this divine energy and activity and share in a type of self-reflection.

[29] Translation cited from *The Qur'an: A New Translation by M.A.S. Abdel Haleem* (Oxford University Press, 2010). For the Arabic, see https://quran.com/al-isra/23.

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[32] See Carl Bielefeldt, *Dogen's Manuals of Zen Meditation* (University of California Press, 1990), 137.

[33] Vivek H. Murthy, *Our Epidemic of Loneliness and Isolation: The U.S. Surgeon General's Advisory on the Healing Effects of Social Connection and Community* (Office of the U.S. Surgeon General, 2023), https://www.hhs.gov/sites/default/files/surgeon-general-social-connection-advisory.pdf.

[34] See Hanne K. Collins, Serena F. Hagerty, Jordi Quoidbach, et al., "Relational Diversity in Social Portfolios Predicts Well-Being," *Proceedings of the National Academy of Sciences* 119 (43) (2022).

[35] Ashley J. Thomas, Brandon Woo, Daniel Nettle, et al., "Early Concepts of Intimacy: Young Humans Use Saliva Sharing to Infer Close Relationships," *Science* 375 (6578) (2022): 311–315.

[36] For an introduction to how economies can focus on care and specific examples, see Elizabeth Garlow and Anne-Marie Slaughter, "A Worldview of Care and a New Economics," *Dædalus* 154 (1) (Winter 2025): 206–223, https://www.amacad.org/daedalus/worldview-care-new-economics.

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[38] See, for example, Malteser, "Mehrgenerationenhaus: Miteinander über Generationen hinweg," https://www.malteser.de/dabei/familie-freundschaft/mehrgenerationenhaus-voneinander-lernen-fuereinander-da-sein.html (accessed August 26, 2024).

[39] See, for example, Andreas Fasel, "Krankheiten und Tod sind für diese Kinder kein Tabu," WELT, February 19, 2018, https://www.welt.de/regionales/nrw/article173662645/In-Moers-gibt-es-eine-Kita-und-ein-Seniorenheim-unter-einem-Dach.html (accessed August 26, 2024).

Care of the Dead: Ancestors, Traditions & the Life of Cultures

Phil Ford, Jacob G. Foster & J. F. Martel

Humans stand apart from other animals in our care for children and elders. We are most distinctive, however, in our care for the dead. Such care is fraught in a modern episteme marked by disenchantment. Beginning with an analysis of exemplary individual relationships with the dead, we develop a theory of the complex links that bind present to past. Through the traces they leave, the traditions they transmit, and the institutions they build, the dead participate in countless chains of causally linked neural and material representations. These should be viewed as living things sustained by attention, memory, and action. Contemporary politics and cultural economies have disrupted our relations with the dead, seeking to control the past for present ends. We call instead for the relationship cultivated with the dead in the humanities, one that emphasizes our shared limitations, our shared fate, and our shared responsibility to make the world from the possible.

Imagine a cellist who is preparing a concert of eighteenth-century music. She lives a fairly ordinary life in one of the great cities of the North Atlantic: riding in subway cars where everyone is on their phones (including her), getting takeout at a Lebanese diner around the corner, coming home to hit up Instagram or watch a Korean reality show on Netflix. She is a citizen of the modern and, like most of us, she daily experiences a ceaseless flow of ever-shifting and evanescent cultural inputs. Within this flow, every element relativizes every other, and no style of music can claim unquestioned cultural dominance, least of all eighteenth-century cello music. Like any citizen of the modern, she must ride the waves of constant cultural innovation. What commands her attention is the New, and the temporal expression of the New is the Now. One cultural object succeeds another in an endless series, and each new object in its turn falls away like a spent rocket booster as the next one zooms off ahead. The continuous turbulent unfolding of the New holds her attention and fastens it to the leading edge of the present moment. In everyday life, the past makes fewer and fewer claims on her attention. Death is a lurid spectacle in this cultural regime, but the dead are seldom remembered.

For all that, our cellist takes her instrument out of its case every night and practices sonatas by Luigi Boccherini. When she does this, she enters a different tem-

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porality, slower and deeper. So doing, she might feel something akin to what Niccolò Machiavelli describes in a famous letter to politician Francesco Vettori:

> When evening comes, I return home and enter my study; on the threshold I take off my workday clothes, covered with mud and dirt, and put on the garments of court and palace. Fitted out appropriately, I step inside the venerable courts of the ancients, where, solicitously received by them, I nourish myself on that food that alone is mine and for which I was born; where I am unashamed to converse with them and to question them about the motives for their actions, and they, out of their human kindness, answer me.[1]

Like Machiavelli and innumerable other writers, scholars, and artists, our cellist has a living relationship with the dead. When the cellist picks up her instrument, it settles against her body in a way that recalls other bodies that have sculpted such instruments to their own measure. When she studies the musical score, she finds patterns intended for her, or someone much like her, realized in notation. Like most utterances we find directed to us, these need interpretation. Why does this passage feel so awkward? What fingering should I use so it will fit my hand? Why does this phrase end as it does? How can I help my listeners make sense of it? You might think that these questions, directed to someone dead for more than two centuries, would elicit no response. Yet somehow they do. As she practices, she finds a ghostly subjectivity shimmering into manifestation – Boccherini's. She knows what feels good in his hands, she knows something of his sense of humor, she knows what he finds moving, charming, sad, terrifying. After studying his music for many years, she feels like she knows him. She cares for him and feels cared for in return.

Musicologist Elisabeth Le Guin writes that, in artistic practice, the dead are vividly present in our very bodies. When a cellist plays a Boccherini sonata, the shapes and gestures of long-dead hands are revivified in her own:

> As living performer of Boccherini's sonata, a work which he wrote for himself to play, I am aware of acting the connection between parts of someone who cannot be here in the flesh. I have become, not just his hands, but his binding agent, the continuity, the consciousness; it is only a step over from the work of maintaining my own person as some kind of unitary thing, the necessary daily fiction of establishing and keeping a hold on identity: different perhaps in urgency and accuracy, but not, I think, in kind. As this composer's agent in performance, I do in this wise become him, in much the same manner as I become myself. My experience of becoming him is grounded in and expressed through the medium of the tactile.[2]

Le Guin insists that the performer's relationship with a dead composer is reciprocal, just as our relationships with living persons are. It is not only that the performer stands in for Boccherini; Boccherini must also stand in for the performer. Jean-Jacques Rousseau wrote that, to interpret music well, performers must understand "that which is supposed in the voice of the executant."[3] Le Guin adds, "What can this mean but the composer's reliance on knowledge of, or assumptions about, the performer? – who can only make the acquaintance of this ghostly version of themselves 'supposed' in the work through a careful evaluation of what it is like to execute it."[4] In this way, the dialogue between performer and composer becomes reciprocal: Boccherini fashions a subject in his music, and in interpreting it, the performer becomes that subject. He intends things for her, and she intends things for him; he tells her things, and she, the one he has supposed, tells him things in turn.

Anthropologist Sarah Hrdy has reflected on the ways cultural objects from the deep past address us in the present day. While discussing an early draft of this essay, Hrdy held a reproduction of a six-thousand-year-old Cucutini figurine up to the Zoom window and spoke of the connection she feels with its unknown maker. "The statuette fits so comfortably in my hand . . . I can hold her face-to-face as if asking some long-lost ancestress about a child who is ill: 'What should I do? Will she get well? Oh please help her to get well.' That's the kind of conversation I imagined having with that statuette."[5] In the same session, historian Abby Rumsey remarked that many of her friends are dead and have been for centuries. Any of her fellow historians will know exactly what she means. Our relationships with the dead are just that: relationships, living and nonmetaphorical. We care for the dead just as we do for our friends and family.

Such relationships of care exist in unresolved tension with the cultural condition of the modern. The life we have imagined for our cellist is divided between her care for the dead and a sustained present of continuous transformation and novelty. The dichotomy between these two temporalities, the fleeting present and the unmoving past, has been a central concern for the theorization of modernity since Charles Baudelaire first applied the term to art. Modernity, he writes, is "the transitory, the fugitive, the contingent, the half of art, of which the other half is the eternal and the immutable."[6] Countless books and articles have teased out the implications of this sentence, not only for art but for all society. Since the 1960s, theorists of modernity have increasingly worried that the tension between the two temporalities would go slack: that the acceleration of the present away from the past might at last reach escape velocity and collapse paradoxically into a "schizophrenic" eternal present.[7]

And perhaps this is in fact happening; it certainly is in the current version of what Theodor Adorno called the culture industry.[8] In this domain, the works of the past have come to be seen not so much as dull and unfashionable (hardly a new complaint) as simply nonexistent. When noticed, they are judged only in present-day terms, by which they are found wanting. The views of dead artists are deemed "problematic," and their works thereby disqualified from consideration. In any event, they are considered irrelevant to current social and political issues.

Something similar is happening in the academic humanities: university classics departments are closing while arts and humanities departments retool their faculties and curricula to emphasize the living at the expense of the dead.[9] Even to complain about this is to court suspicions of a retrograde or simply weird agenda: who makes friends with the dead?

Weird: into that word are loaded all the metaphysical assumptions by which "care of the dead" becomes hard for moderns to conceive in a more-than-metaphorical way. It is not only the double temporality of the modern that strains our relationships with the dead; it is also the boundary between what we can and cannot easily think within the construal of reality given by secular modernity's default naturalism. As cultural theorist Mark Fisher writes, what is weird is what is *wrong*; something from outside the boundary – "that which lies beyond standard perception, cognition and experience" – imposes itself on inside-the-boundary reason.[10] At stake here is what Max Weber called disenchantment, the process by which spiritual agencies have come to be excluded from our picture of the world and from intellectually respectable discourse.[11] For the eminent philosopher Charles Taylor, as for Weber, disenchantment is one of the basic "conditions of belief" by which a naturalist episteme has come to appear as something beyond belief – not a historical and contingent set of notions concerning reality but reality itself, unarguable and unanswerable. And what underwrites disenchantment are several metaphysical assumptions concerning mind:

> Let me start with the enchanted world, the world of spirits, demons, moral forces which our predecessors acknowledged. The process of disenchantment is the disappearance of this world, and the substitution of what we live today: a world in which the only locus of thoughts, feelings, spiritual élan is what we call minds; the only minds in the cosmos are those of humans...and minds are bounded, so that these thoughts, feelings etc. are situated "within" them.[12]

It doesn't seem especially weird for Hrdy to say that she can hold a Cucutini figurine "as if asking some long-lost ancestress about a child who is ill," because that "as if" renders the thought metaphoric. She is not "really" asking the figurine for wisdom, and we would be surprised if she did, as we likely do not believe that a piece of clay can be the "locus of thoughts, feelings, spiritual élan," much less the dead artist who made it. Le Guin's notion of music performance as a reciprocal relationship with a dead man might seem a bit weird insofar as it suggests communication between a living and embodied mind and a dead one unbounded by a corporeal human form. An orthodox naturalist might want to ask: Where would such a mind reside? What would be its material medium? How could it make itself understood? We tame the implicit weirdness of the idea by assuming that here, too, we are speaking metaphorically.

But what if we're not? What if "care of the dead" doesn't just mean caring for the artistic products left behind by a human life, but in some way caring for that (after)life? What if we hold ourselves in common with that life? One of us (Phil Ford) is a Buddhist and, like many Buddhists, keeps an altar in his home. It includes framed photos of deceased family members he wishes to remember and who stand in for all the generations that precede them. He has long made a habit of lighting a stick of incense at his altar whenever his family settles into an evening of games, movies, conversation, or whatnot. He makes such offerings to his ancestors because he wants them to be included in the fun. This is one way to hold oneself in common with the life of the dead. Doing so means setting aside the questions that secular moderns are inclined to ask: Do you really think the dead would feel included in your family time? Or feel anything at all? With such a practice, as with spiritual practices generally, you don't wait around for it to make sense before undertaking it; you undertake it so that it makes sense. Whatever else may be said about it, this practice is one way to maintain a hermeneutic relationship with the dead – to keep them alive in your mind as an active question. And while it is perhaps more conspicuously weird than the hermeneutic relationship that Le Guin proposes, it is not really different in its aims and outcomes.

In undertaking such practices, we moderns find ourselves on the far side of the line between what we can easily accept from our world and what we cannot. But at the same time, we find ourselves in company with almost all cultures and societies that have ever existed. Modernity is the late and eccentric product of a human imagination that likes to think it has freed itself of the errors and superstitions that have plagued humanity up to now. The subtitle of Marshall Sahlins's last book, "An Anthropology of Most of Humanity," tartly makes this point. Sahlins's *The New Science of the Enchanted Universe* concerns those "metapersons" that, for most of humanity, form polities with living human beings. Metapersons could be animals, deities, or the dead: "although generally called 'spirits,' these beings have the essential attributes of persons, a core of the same mental, temperamental, and volitional capacities."[13] Most of humanity has always sought to find the best ways of living with them, just as living human beings try to get along with one another as well as they can.[14]

Disenchantment is the process by which this becomes harder to think. But it is never unthinkable.[15] If our culture is afflicted by presentism, people like our cellist can still choose to "step inside the venerable courts of the ancients." Likewise, disenchantment is not compulsory. Indeed, philosopher Jason Josephson-Storm has suggested that modernity has always been both the site of disenchantment and the site of its undoing.[16] The social, cognitive, and complexity sciences, which are generally cast as thoroughly disenchanted domains of thought, might lend some support to the notion that we remain in intimate relations with the dead, particularly through the imaginative works they have left us.

Consider this, then, as a live possibility: Perhaps Phil is right to care for his familial dead, and Le Guin is right to treat Boccherini as a friend, and most of humanity was and is right to treat the dead as vital and care-worthy members of their society. They are right because the dead are, in some real sense, still alive. The dead demand our care because their thoughts – insofar as they become words and deeds – are living things. Those living things form much of the ecology of our minds. With care, that collective ecology is a garden. Without care, it is a blinding desert of the always new or a choking jungle of the ever old.

Believing that the dead live on does not require us to step too far beyond modernity's scientific comfort zone; it simply requires that we don't blink when philosophical naturalism or materialism drives us to weird conclusions (in Mark Fisher's sense). This perspective is a consequence of the metaphysical extravagances implied by a rigorous account of culture and cognition – and the latest thinking about the nature of the living state.

In 1952, anthropologists A. L. Kroeber and Clyde Kluckhohn famously gathered 164 definitions of the term "culture."[17] Nowadays we could doubtless come up with another hundred. In this essay, our preferred definition focuses on culture's formal properties: a piece of culture is any "shared regularity in the organization of experience or the generation of action acquired through social life."[18] The (weird) materialist turn comes from insisting on specificity in the location of bits of culture. They must be instantiated, either as patterns in the brain or as shared (if possibly transient) artifacts.

Cognitive anthropologist Dan Sperber builds up an ontology of culture starting with "cognitive causal chains" (CCCs), each chain a sequence of cognitive processes linked by input-output relations.[19] He calls the things that flow along these chains representations, and notes, quite brilliantly, their amphibian nature. They are creatures of both the abstract and the physical; the formal and the causal. A CCC is "a causal chain in which each of the processes involved has the function of instantiating a certain type of semantic relationship" – relationships like "justification" or "similarity of content."[20] These amphibian causal processes are not limited to individual human heads. Rather, they flow between them as social CCCs, in which mental representations give rise to public productions (some of which are also representations, as their function is to continue the causal chain by producing a mental representation in another person).

When these causal chains spread widely and stably enough, they become cultural. Much is smuggled in by the term "stably," however. Sperber's approach to culture – now pursued under the terms *epidemiology of representations* or *cultural attraction theory* – does not take stable cultural transmission for granted, as in classical meme theories. Rather, it embraces the potential moments of transformation when a mental representation is rendered into a public representation, which produces related but not necessarily identical mental representations in its listeners or readers. While memetic transmission is necessarily a replicative process for biologist Richard Dawkins and others who insist on a tight analogy between cultural and genetic inheritance, Sperber posits a more reconstructive or even interpretive transmission. This makes novelty, transposition, and innovation a live possibility, and stability a special outcome. With cultural CCCs, features of the mental representation interact with its cognitive, cultural, and social environment to make it reasonably stable, so that tokens of the same type flow along the causal chain.

These chains become something like cultural lineages. A bit of culture in one mind is externalized as a piece of writing and produces a bit of culture in another mind. You happen to talk with a friend about this strange essay you read in *Dædalus*, and the bit of culture reproduces; the lineage continues.

These bits of culture are behaving very much like *living things*. We mean this as more than a metaphor. There has been a sea change in how scientists think about life, inspired by the challenges of astrobiology (the search for life on other planets). In the astrobiological context, it simply does not make sense to think of life in terms of a particular chemistry (like the use of DNA or RNA to provide stable memory). Instead, using the tools of complexity science, theoretical biologists Chris Kempes and David Krakauer argue that we should focus on the basic *functions* that characterize the living state.[21] It all boils down to using matter, energy, and information from the environment to persist and reproduce. Of course, this is exactly what a cultural organism does, whether it uses neurons in your brain to persist or the organization of lines, dots, and other bits of musical notation on a sheet of paper to reproduce.[22] We can drop the "as if" from Hrdy's testimony: she has a living thing on (or rather, in) her hands.

Some examples will make this more vivid. Consider Carl Jung's notion of the autonomous complex, in which an artistic idea literally possesses and consumes the cognitive resources of its host in its "effort" to be realized. Or consider the songs, slogans, sayings, and thoughts that seem to demand our conscious attention and to commandeer our voices or bodies to achieve expression. Like the last song you had stuck in your head: this earworm persists because some of the matter in your brain is organized in a particular fashion, and some of the energy available – which could be devoted to bringing all sorts of thoughts to conscious presence – has instead been hijacked by a musical loop. This musical loop has the form that it does because it encodes (quite literally) survival-relevant information about its environment: the musical and melodic relationships that might be especially memorable; the words in the listener's first language from which lyrics can be selected and stored for much lower cost than, say, Sumerian ones; and so on. Is the earworm using matter, energy, and information in the same way a person does? Absolutely not. But in the same way a virus does? Or a bacterium? The distinction is harder to maintain. At a formal level, we would use much the same explanatory machinery to account for the persistence and reproduction of a virus as we would an idea. The substrate would be different, but the functional principles would be the same.

Like more familiar biological organisms, cultural organisms exist at multiple scales. They are embedded in rich ecologies. When a cultural organism uses a human author to perpetuate itself through writing, it relies on an entire multiscale ecology of literacy and literary institutions that allows its efficient and effective reproduction. Cultural organisms faced with mismatched ecologies undergo fascinating transformation and hybridization. For example, psychologist Frederic Bartlett showed that when English students played a game of telephone with Native American ghost stories, unusual properties of ghosts in the Native tradition were replaced with familiar properties from the English tradition.[23]

In work with his former student Bernie Koch and computational biologist Daniele Silvestro, one of us (Jacob Foster) has shown that cultural organisms actually follow some of the same basic evolutionary principles as biological organisms.[24] By studying the complete population of metal bands over many decades, they found that the birth and death of bands were driven by competition for limited resources (in this case, literal metal "heads" – the time, attention, and cognitive bandwidth that folks would dedicate to metal music). Just as in biological organisms, key innovations can unlock new niches, but instead of evolving wings to take to the air, artists such as Sunn O))) developed new genres like drone metal, opening up space for explosions of cultural diversity.

This view of culture produces a sort of figure-ground reversal in how we think of both the living and the dead.[25] The dead are caught up in an endless web of cultural reproduction. They are both relays – critical hosts for cultural organisms making their way from past to present – and seed beds – bringing forth new cultural lineages that struggle to find their place in the cultural fabric. These new cultural lineages often have a certain poignancy: they most distinctly bear the stamp of the time, place, and (mortal) life of their originator. As literary scholar Robert Pogue Harrison writes in *The Dominion of the Dead*, some of these cultural lineages are nothing less than "the gifts of human worlds, cosmic in nature, that hold their place in time so that the living and the unborn may inhabit them at will."[26] Such lineages grant a sort of partial, imaginal immortality to their constituents. Every time their story is told, the living breathe life into them and the dead come to fleeting reanimation.

These reanimated dead are more than mere ghosts, fated to an eternal return of the same. The curious power of the living imagination gives such cultural life forms continued freedom. In the most extreme cases, a congeries of densely related cultural lineages may allow the imaginal resurrection of the long dead. Think of Le Guin's intimacy with Boccherini, or Rumsey's host of long-dead friends, called up through strange acts of academic necromancy.[27] On the weird materialist account we've developed, to call this imaginal engagement "resurrection" isn't *entirely* ridiculous. Such figures cast so many cultural lineages into the future, and these have been tended and passed forward so meticulously, that it isn't unreasonable to think that imaginal reconstruction by a scholarly intimate might have something like the same fidelity as the everyday imaginal reconstruction of a living friend from the many threads of memory and culture that entangle us.[28]

For if the dead become relays and seed beds, the living become seething ecologies of interrelated, interacting cultural organisms. Competing for memory, competing for dreams, competing for access to our conscious thoughts, words, and deeds. Copulating in the recesses of the unconscious to breed new organisms that might strike out and spread and become cultural. Harrison is right to remark that "we are not self-authored, that we follow in the footsteps of the dead."[29] Indeed, our minds are constituted by ecologies of cultural organisms handed down to us and ultimately authored by those long dead and buried. Paleontologist, philosopher, and Jesuit Pierre Teilhard de Chardin wrote that our very species depends on this entanglement with the dead:

> From the moment when . . . the phyletic strands began to reach toward one another, weaving the first outlines of the Noösphere, a new matrix, coextensive with the whole human group, was formed about the newly born human child – a matrix out of which he cannot be wrenched without incurring mutilation in the most physical core of his biological being.[30]

For us, this way of thinking about culture, tradition, and the dead stirs deep feelings of care and obligation. In part, this reflects the duty of care – or at least close consideration – we feel toward any fellow living thing. In part, it arises from a profound sense of debt and gratitude to the hands and minds that authored so much of who and what we are today, for good and for ill.[31] We are stuck with our dead. We need to learn how to live with them, especially if they are – in some sense – still kicking around, still bringing us joy, still causing us trouble. Walking away is not an option.

This line of thought can run swiftly toward the tragic. Think of the numberless forgotten dead; even worse, the endlings of memory, carrying the last spark of some cultural organism that will soon be lost forever. Certainly, this elevates the sense of duty we feel toward our personal dead, toward the cultural organisms within our immediate care. Recognizing this, perhaps we can be better collective stewards of the noöspheric matrix and its numberless cultural organisms, striving for more equitable and even-handed access to imaginal immortality. We can also recognize that neglecting the mighty dead doesn't make them go away; it leads to our continued haunting with ever coarser, ever flatter, ever more attenuated versions of their cultural legacy, organisms reduced to crafty parasites that lurk in the darkest corners of our collective unconscious. Ignoring the dead and trying to "start over" doesn't lead to utopia or the overthrow of "necrocracy." The choice is between conscious necromancy and unconscious possession. The myths and ghost stories that we moderns love to bracket with the great "as if" were actually right: either we deal with the dead – honor them, critique them, care for them, cure them – or we will be troubled by them forever. They will not be forgotten; they are always already inside us.

Let us take stock then. On the one hand, we have the preceding vision of culture as a continuous process of appropriation and interpretation, where novelty subtends each new and living link in the causal chain. Culture à la Sperber. Culture in the world of weird materialism. On the other hand, we have a deterministic vision of culture postulating the mechanical replication and replacement of fixed "memes." Culture according to Dawkins. Culture in the world of orthodox scientific naturalism.

These two models exemplify two very different attitudes toward the dead and the past. The latter model offers an almost *digital* view of the world of the dead – "digital" in that memes act as *discrete* bits of culture, transmitted from one generation to the next and either retained or rejected at each step in the evolutionary process. In the Sperberian model, by contrast, the view is *analog*: our current ideas and beliefs are links in a chain that extends backward and forward in time, ever shifting and transforming. There is infinite granularity. We could even dispense with the chain analogy and speak of living vines creeping along a trellis of human history. In this model, *no* cultural organism can be apprehended as a static object external to us. As the fruit of a creative engagement on the part of our forebears, each cultural organism acquires its valence and function from the creative acts by which the living appropriate and reinvent it, effectively allowing it to "reincarnate" in a world entirely composed of such organisms.

This essay is an attempt to model this model, so to speak; to show how a materialism tuned to a slightly weirder frequency can overcome the myopic tendency to dismiss the cultures of the dead as simply obsolete. Premodern societies – and contemporary ones that defiantly cling to practices at odds with the secularist modalities of a postcolonial, postindustrial age – overwhelmingly perceive the dead as being alive in a very special way. However odd it might seem to some of his neighbors, Phil's practice of burning incense for the ancestors is a ritual that goes back millennia and persists in many places today. Though we educated moderns may not share the metaphysical assumptions that motivated those who first breathed life into this particular cultural organism, recognizing that these innovators were human beings – as cognitively and culturally competent as we are – may grant us the intellectual charity needed to adapt and reenvision where we have hitherto scoffed and rejected.

Recall again Hrdy's amazement at how the Cucutini figurine fit perfectly in her hand. In merely holding it, she felt a communion with the anonymous person who carved and cherished it in the distant past. A human lifeworld seemed encoded in its very structure, just as Harrison has proposed. We suspect that such feelings of continuity and contiguity with the dead are rare today, when cultural mechanisms, many of them increasingly automated, seem bent on imparting a "year-zero" mentality, according to which the past is cleaved from the present at the ontological level. Such an outlook makes the past appear something like a faded black-and-white film that, though it clearly *refers* to reality, plays no active part in it. This is presentism in a nutshell, and it is nowhere conveyed more compellingly (if parodically) than in George Orwell's *Nineteen Eighty-Four*, whose protagonist comes upon the following passage in a political treatise describing the ideology of the dystopian controllers:

> The mutability of the past is the central tenet of Ingsoc. Past events, it is argued, have no objective existence, but survive only in written records and in human memories. The past is whatever the records and the memories agree upon. And since the Party is in full control of all records, and in equally full control of the minds of its members, it follows that the past is whatever the Party chooses to make it. It also follows that though the past is alterable, it never has been altered in any specific instance. For when it has been recreated in whatever shape is needed at the moment, then this new version is the past, and no different past can ever have existed. This holds good even when, as often happens, the same event has to be altered out of recognition several times in the course of a year. At all times the Party is in possession of absolute truth, and clearly the absolute can never have been different from what it is now.[32]

The logic of Ingsoc is clear: Who controls the past controls the future. Who controls the dead controls the unborn.

What should trouble us, on reading this, is how difficult it is for us moderns to object on metaphysical grounds. Where, pray tell, is the past? Is it not true that it exists only in manipulable records and unreliable memories? Precisely because of its metaphysical bravura, Orwell's satire hits uncomfortably close to home. While we may flatter ourselves for having dispensed with central committees explicitly mandated to turn the dead into the sock puppets of some politically expedient morality play, one does sense in our presentism a desire to obliterate the past and thereby deny any claim it may have upon us. The view of culture developed here can help counteract this desire by confirming the wisdom of certain "memes" that our presentism may too quickly dismiss as clichés: William Faulkner's quip that the past, far from over, is "not even past"; or the proverb often attributed to David Hume or George Santayana that "those who do not learn from history are doomed to repeat it."[33] Cultural CCCs are not mere representations that have value only in the present: each cultural organism is entirely composed of the past; its temporality is what gives it life. The past is affirmed in it, the dead resurrected.

Understanding all this, the presentists in us would like nothing so much as to concoct a radically new current of thought and practice, some new school of necromancy, to favor intellectual work that truly cares for the dead. To give in to this temptation, however, would be to miss the point. Rather, let us turn to the dead and see what they have to say. As we write this, humanities programs in universities across North America are facing significant challenges as funding priorities, student enrollment trends, job market pressures, and public perception conspire to devalue and marginalize these essential fields of study. The crisis in the humanities, of course, reflects broader societal shifts prioritizing economic utility over critical, cultural, and ethical thought. But what are the humanities if not a *Wissenschaft* predicated on the daunting prospect of understanding the past by entering it, of knowing the dead by conversing with them?

The humanistic approach is founded on the recognition that the limitations characterizing our ancestors' perspectives are ones we share. This condition underscores a deeper search for meaning that transcends any individual belief or practice; it gives culture a value that a utilitarian metric can only occlude. By viewing both the past and the present as the endeavors of limited humans living in time, we relativize both temporalities. In the humanities, the dead and the living engage in dialogue as equals, united by a shared existential journey. It is no mere hyperbole, then, to characterize the humanities as inherently necromantic: they are driven by a will to sympathize with the dead. If this pushes the humanities toward the creative arts on the epistemic spectrum whose other pole is the natural sciences, so be it.

As one of us (J. F. Martel) argues in his book *Reclaiming Art in the Age of Artifice*, by operating in an epistemic space where the exploration of the *possible* takes precedence over the apprehension of the actual, art plays a role that is as important as that of physics and biology. It is an objective pursuit with the same claim to truth as science, albeit truth of a different order.[34] Often, efforts to resolve the crisis of the humanities have hinged upon making them more quantitative and scientific. Perhaps understanding them as a means of engaging with the cultural organisms that make up our world on their own transtemporal terrain can breathe new life into intellectual practices where the dead can be seen as a polity in no less need of care than the living. Indeed, perhaps the needs of the living would be best served by such an approach.[35]

In *The Dominion of the Dead*, Harrison writes:

> Our basic human institutions – religion, matrimony, and burial, also law, language, literature, and whatever else relies on the transmission of legacy – are authored, always and from the very start, by those who came before. The awareness of death that defines human nature is inseparable from – indeed, it arises from – our awareness that we are not self-authored, that we follow in the footsteps of the dead.[36]

G. K. Chesterton grasped the political implications of this fact when he defined tradition as "the democracy of the dead." For him, tradition mattered because it acted as a counterweight to "the small and arrogant oligarchy of those who merely happen to be walking about."[37] The dead, of course, do not vote by filling out a ballot, but by providing us with the ballot and the ballot box. Through these institutions, practices, and countless other ideas, the dead – though they remain dead – are no longer tethered, in our minds, to the past. Seen in their transtemporal presence, the dead subtly remind us that their era was as real to them as ours is to us, and that our era may seem as unreal to our unborn descendants as theirs may now seem to us. Caring for the dead, then, means acknowledging the continued relevance of the past as well as our duty toward ourselves and our descendants. It amounts to self-care and care for the unborn. As art critic John Berger said, "The living reduce the dead to those who have lived; yet the dead include the living in their own great collective."[38]

In our politically polarized age, it is too easy – especially in the academy – to dismiss care for the dead and their ideas as regression. Balancing the scales requires us to identify a third way between regressive atavism and radical progressivism.[39] At present, then, we face two different visions of managing the ever-growing dead. On one side is the perpetual new beginning favored by the most presentist currents of (hyper)modernity. On this view, the dead are an affront, and the cultural organisms they spawned should be neglected, deleted, or forgotten. Make way for the (monetizable) new! On the other side is the perpetual preservation of the (imagined) past favored by certain strands of reactionary (hyper)traditionalism. On this view, the (imagined) dead are to be revered and their (imagined) cultural progeny carried endlessly forward from past to present to future in a formaldehyde relay. Bow down before the (sanctified) old![40]

The hypermodernist construal leaves us with a cultural desert, haunted by the ghosts of the discarded dead: Angry ghosts, prone to lash out as seemingly inexplicable cultural poltergeists; old currents, surging to the surface. Each new cultural organism gets its fifteen minutes before withering away in the glare of the new. The hypertraditionalist construal leaves us with a cultural jungle, choked by the hypertrophic progeny of the overpraised dead, whose decadent excess becomes an impenetrable overstory, blotting out new cultural life and breeding monsters in its unexamined depths.

Caring for the dead does not mean idealizing them any more than it does denigrating them. A mentality that would give more weight to the votes of the dead than those of the living would only replace one oligarchy with another. Giving greater authority to the dead – or rather, to certain ideas of certain dead – is a move that only makes sense if it serves some faction of the living. The various reactionary traditionalisms of our day are thus *no less presentist* in their approach to the valence and meaning of the past than their revolutionary opposites. Both camps are aligned with Orwell's Ingsoc insofar as they are attempting to *control* the dead.

To *care* for the dead means avoiding both extremes. It means creating a garden in which the dead and the living can walk together; in which old growth is carefully tended, protected from decay, and lovingly pruned of disease; in which new growth is nurtured and nourished, never forgetting its roots in the humus of the long dead and long forgotten. We think of the image conjured by the anonymous author of *Meditations on the Tarot,* one guide to responsible cultural necromancy:

> The links in the chain of the tradition are not thoughts and efforts alone; they are above all living beings who were thinking these thoughts and willing these efforts. The essence of the tradition is ... a community of spirits from age to age.[41]

This is true for any tradition. At its living best, it is a community of spirits from age to age. Those who are dead live on, dwelling in and amongst us. And they need our care, if we are all to carry on.

ABOUT THE AUTHORS

Phil Ford is Associate Professor of Music in Musicology at the Jacobs School of Music at Indiana University. He has also taught at Stanford University and the University of Texas at Austin. He is the author of *Dig: Sound and Music in Hip Culture* (2013) and has published in such journals as *Representations*, *Journal of Musicology*, and *Musical Quarterly*.

Jacob G. Foster is Professor of Informatics and Cognitive Science at Indiana University Bloomington and an External Professor at the Santa Fe Institute. He held previous appointments at the University of Chicago and UCLA. He has published in such journals as *American Sociological Review*, *Science*, and *Proceedings of the National Academy of Sciences*.

J. F. Martel is a writer on art, culture, religion, and philosophy. He is the author of *Reclaiming Art in the Age of Artifice* (2015) and has published in such journals as *Canadian Notes & Queries*, *Reality Sandwich*, *The Finch*, and *Metapsychosis*.

ENDNOTES

[1] Niccolò Machiavelli, letter to Francesco Vettori, December 10, 1513, in *Machiavelli and His Friends: Their Personal Correspondence* (Northern Illinois University Press, 1996), 264.

[2] Elisabeth Le Guin, *Boccherini's Body: An Essay in Carnal Musicology* (University of California Press, 2006), 24.

[3] Jean-Jacques Rousseau, *A Complete Dictionary of Music: Consisting of A Copious Explanation of All Words Necessary to A True Knowledge and Understanding of Music,* trans. William Waring (London: J. Murray, 1779; AMS Press, 1975).

[4] Le Guin, *Boccherini's Body*, 25.

[5] Sarah Hrdy, email to Phil Ford, June 25, 2024.

[6] Charles Baudelaire, "The Painter of Modern Life," quoted in Matei Calinescu, *Five Faces of Modernity: Modernism, Avant-garde, Decadence, Kitsch, Postmodernism* (Duke University Press, 1987), 48.

[7] Most notably, Frederic Jameson framed Lacan's conception of schizophrenia as a "crisis of historicity" within postmodernity. Frederic Jameson, *Postmodernism, or, the Cultural Logic of Late Capitalism* (Duke University Press, 1991), 25–31.

[8] To substantiate this claim would be the work of an entire monograph. Suffice it to say that some of the most distinguished works of recent cultural theory have argued the point quite convincingly. See, for example, Federico Campagna, *Technic and Magic: The Reconstruction of Reality* (Bloomsbury, 2018). Adorno's writings on the "culture industry" foreshadowed much of this discourse, and we use his coinage here to stand in for a set of cultural relations that would also take an entire monograph to theorize fully.

[9] For an eloquent argument for the continued relevance of long-dead writers, see Cornel West and Jeremy Tate's editorial on the closing of Howard University's classics department, "A Classics Catastrophe at Howard," *The Washington Post,* April 20, 2021.

[10] Mark Fisher, *The Weird and the Eerie* (Repeater Books, 2017), 53. Those reading our essay in the aftermath of the 2024 U.S. presidential election may think first of the calculated deployment of "weird" by the Harris-Walz campaign. This usage is entirely in line with Fisher's. Harris and Walz sought to position Trump and Vance on the far side of a line between acceptable and unacceptable (or even unthinkable) political attitudes and behaviors.

[11] Max Weber, "Science as a Vocation," in *From Max Weber: Essays in Sociology,* ed. Hans Gerth and C. Wright Mills (Oxford University Press, 1946), 129–158.

[12] Charles Taylor, *A Secular Age* (Belknap Press, 2007), 29–30.

[13] Marshall Sahlins, *A New Science of the Enchanted Universe: An Anthropology of Most of Humanity* (Princeton University Press, 2022), 2.

[14] To put this another way: for most of humanity, the dead are seamlessly included in both a community of fate–"those with whom we perceive our destinies to be entwined"–and a community of care. Margaret Levi, "Expanding the Community of Fate by Expanding the Community of Care," *Dædalus* 154 (1) (Winter 2025): 240–241, https://www.amacad.org/daedalus/expanding-community-fate-expanding-community-care.

[15] Indeed, contemporary religious communities provide ample evidence that enchantment and care remain closely intertwined, with Sahlins's meta-persons as both the subjects and objects of care. Zachary Ugolnik, "Divine Care: Care as Religious Practice," *Dædalus* 154 (1) (Winter 2025): 150–165, https://www.amacad.org/daedalus/divine-care-care-religious-practice.

[16] Jason A. Josephson-Storm, *The Myth of Disenchantment: Magic, Modernity, and the Birth of the Human Sciences* (University of Chicago Press, 2017).

[17] A. L. Kroeber and Clyde Kluckhohn, *Culture: A Critical Review of Concepts and Definitions* (Peabody Museum Press, 1952).

[18] Jacob G. Foster, "Culture and Computation: Steps to a Probably Approximately Correct Theory of Culture," *Poetics* 68 (2018): 145.

[19] Dan Sperber, *Explaining Culture: A Naturalistic Approach* (Blackwell, 1996).

[20] Dan Sperber, "Conceptual Tools for a Naturalistic Approach to Cultural Evolution," in *Evolution of Culture: A Fyssen Foundation Symposium* (The MIT Press, 2006), 154, 153.

[21] Chris P. Kempes and David C. Krakauer, "The Multiple Paths to Multiple Life," *Journal of Molecular Evolution* 89 (7) (2021): 415–426.

[22] If we acknowledge this, then we must also acknowledge that the changing boundaries of life raise urgent moral questions about what care for the dead means, and what states care (in general) should aim to bring about.

[23] Frederic C. Bartlett, *Remembering: A Study in Experimental and Social Psychology* (Cambridge University Press, 1932).

[24] See the preprint by Bernard Koch, Daniele Silvestro, and Jacob G. Foster, "The Evolutionary Dynamics of Cultural Change (As Told through the Birth and Brutal, Blackened Death of Metal Music)," SocArXiv (2020), https://osf.io/preprints/socarxiv/659bt.

[25] A figure-ground reversal involves a shift in perception; the background of an image (the "ground") becomes perceptually primary, while the erstwhile focus (the "figure") becomes the new ground. Many classic visual illusions play with the instability of figure and ground: Are you seeing two faces in profile? Or a vase? And so on.

[26] Robert P. Harrison, *The Dominion of the Dead* (University of Chicago Press, 2010), 15.

[27] We're being playful here but–really, what else do you call it when the living summon up the spirits of the dead for a little chat?

[28] The term *imaginal* is not to be confused with *imaginary*. As a term of art in religious studies and philosophy, imaginal refers to a world of vivid images and possibilities–not physical but nonetheless real. It is most closely associated with the great French scholar of Islam, Henry Corbin, who called the other world described by certain Muslim philosophers the *mundus imaginalis*. See Henry Corbin, "Mundus Imaginalis or the Imaginary and the Imaginal," 1964, https://www.amiscorbin.com/en/bibliography/mundus-imaginalis-or-the-imaginary-and-the-imaginal.

[29] Harrison, *The Dominion of the Dead*, ix.

[30] The term noösphere builds on the familiar terms lithosphere and biosphere, taking its distinctive beginning from the Greek word *nous* (a highly polysemous word that is often translated as "mind" or "intellect"). Just as the biosphere refers to the products of life that enrobe the earth, the noösphere refers to the products of mind. Pierre Teilhard de Chardin, "The Formation of the Noösphere," *Revue des Questions Scientifiques* (1947), republished at The Library of Consciousness, https://www.organism.earth/library/document/formation-of-the-noosphere (accessed November 22, 2024).

[31] Our analysis demonstrates that the fundamentally "relational" character of human beings extends beyond our contemporaries to include our predecessors and their still-living cultural progeny. On the picture we develop here, our "destinies" are literally "entwined" with the dead. Levi, "Expanding the Community of Fate."

[32] George Orwell, *Nineteen Eighty-Four* (Penguin Books, 1990), 222.

[33] William Faulkner, *Requiem for a Nun* (Knopf Doubleday, 2011), 73.

[34] J. F. Martel, *Reclaiming Art in the Age of Artifice: A Treatise, Critique, and Call to Action* (North Atlantic Books, 2015), 20 and passim.

[35] We also note–with no small irony–that the natural sciences are becoming more like *art* in the twenty-first century, insofar as they shift "from studying what is to what could be." This point is argued by the theoretical physicist and former director of the Institute for Advanced Study, Robbert Dijkgraaf, who draws on examples ranging from synthetic biology and AI to the strange physics of carefully engineered condensed matter systems. In light of this, most efforts to make the humanities "more scientific" are emulating the natural sciences as they were, not as they have become. Robbert Dijkgraaf, "Contemplating the End of Physics," *Quanta Magazine*, November 2020, https://www.quantamagazine.org/contemplating-the-end-of-physics-20201124.

[36] Harrison, *The Dominion of the Dead,* ix.

[37] G. K. Chesterton, *Orthodoxy* (John Lane, 1908), 85.

[38] John Berger, *Hold Everything Dear: Dispatches on Survival and Resistance* (Vintage Books, 2007), 4.

[39] Although beyond the scope of this essay, it would be fascinating (albeit difficult and delicate) to work out the role of the state in these endeavors. At the very least, it seems that the intemperate slashing of public support for the humanities represents a failure of the state's duty of care–for the dead as well as the living. See Levi, "Expanding the Community of Fate."

[40] As an illustrative example, consider those who want the King James Bible (or some other, more recent translation into English) to be treated as the exclusive authority on Christian doctrine, never mind its theologically tendentious translational choices. This is not to deny its sublime beauty as a work of literature!

[41] While the identity of the author is widely known, we respect his intended anonymity and refer to him as our Known Friend–reciprocating his address of the reader as an "Unknown Friend." Known Friend, *Meditations on the Tarot: A Journey into Christian Hermeticism* (Penguin, 2005).

Computational Frameworks for Human Care

Brian Christian

Some of the earliest science-fiction literature to imagine humans' long-term relationship with machines portrayed technology as a kind of caregiver for humans. The retrofuturist vision of machine care is poised to become reality, as the world of the 2020s is experiencing both incredible advances in AI technology as well as demographic changes that, together, make such systems seem at once possible and necessary. Tracing the key themes from our literary and cultural imagination and framing them against the technical progress in the field of AI alignment reveals insights and lessons for us as we approach the prospect of bringing certain forms of computational care to life. In so doing, they provide not only practical guidance but also give us an opportunity to sharpen our intuitions about the nature of human care itself.

In 1909, E. M. Forster published his uncannily prescient story "The Machine Stops," portraying a future in which humans live solitary lives in small apartments, interacting with one another holographically, all of their needs for food and sleep provided by the "Machine."[1]

The Machine has an operating manual, called the book of the Machine. "If she was hot or cold or dyspeptic or at a loss for a word," Forster explains of the main character, Vashti, "she went to the book, and it told her which button to press." Sometimes even this minimal effort is not required. At one point during a video call with her son, Vashti says she is feeling unwell: "Immediately an enormous apparatus fell on to her out of the ceiling, a thermometer was automatically laid upon her heart. She lay powerless. Cool pads soothed her forehead.... Vashti drank the medicine that the doctor projected into her mouth, and the machinery retired into the ceiling."

Not only does the Machine embody a certain form of caregiving – admittedly a sometimes overzealous one – but Forster is explicit that it has supplanted human forms of care. "'Parents, duties of,' said the book of the Machine, 'cease at the moment of birth.'"

It is striking how central the theme of mechanical caregiving is to the fictive imagination of humans' technological future. Fast-forwarding to the mid-twentieth

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century – the Golden Age of Science Fiction that accompanied, rather than anticipated, the birth of the computer – we see a similar vision. In Ray Bradbury's classic 1950 story "The Veldt," we meet the Hadley family, who live in a "Happylife Home . . . which clothed and fed and rocked them to sleep and played and sang and was good to them."[2] (Something in the breathless polysyndeton suggests a kind of inexhaustibility that is, in fact, exhausting.) We see how the house itself has taken over the managing of all domestic activities; we see the mother, Lydia, watching "the stove busy humming to itself, making supper for four."[3]

Indeed, the house has supplanted the parents' care, not only for their children, but also for each other: "The house is wife and mother now, and nursemaid."[4] The gendered language here is striking; it feminizes the Home while reflecting now-dated 1950s norms, and in doing so suggests something very particular about the house. It hasn't supplanted the need for an economically productive breadwinner (on the contrary, Bradbury emphasizes its monetary cost), but it *has* replaced human labor in its myriad other, non-GDP-denominated senses: foremost, care.

By the late 1960s, the world had entered the era of manned spaceflight, and the poet Richard Brautigan, as a writer-in-residence at Caltech, wrote memorably of "a cybernetic ecology / where we are free of our labors / [. . .] / and all watched over / by machines of loving grace."[5] Part of the poem's lasting appeal is its inscrutable tone: Is it earnest? Ironic? Sinister? It resonates all the more for this ambiguity, which speaks to our own ambivalence about what the long-term future holds, and even what it should.

But this vision of AI as the ultimate caregiver for humankind is – critically – hardly exclusive to the arts. Rather, the idea of machine caregiving has been a guiding light for the field of artificial intelligence itself. Caregiving is often cited as part of the teleology of AI: one of the canonical use cases of intelligent machines, one of the primary things that intelligent machines are *for*. As the field has progressed, particularly with the resurgence of artificial neural networks since 2012 and the rise of large language models (LLMs) since 2019, a version of this goal is starting to come within reach. Meanwhile, demographic changes are leading to a critical shortfall in caregivers, a shortfall that political leaders view as impossible for human labor to fill. Supply and demand, in other words, are poised to meet.[6]

An authoritative accounting of this progression is beyond the scope of this essay, but a somewhat arbitrary sample is sufficient to indicate its size, shape, and velocity: "The biggest argument for robot caregivers," argued gerontologist and author Louise Aronson in a *New York Times* op-ed in 2014, "is that we need them. We do not have anywhere near enough human caregivers for the growing number of older Americans."[7] In 2015, a Canadian long-term care facility began a pilot program with a robot that could play bingo with residents.[8] By 2017, 59 percent of Americans viewed the idea of robot caregivers as "realistic."[9] In 2018, the government of Japan was predicting a shortfall of 370,000 caregivers by the year 2025 and had already spent over $300 million in research funding toward care robots.[10] In early 2022, a series of nursing homes in Minnesota, beginning with the Estates of Roseville, began introducing care robots for patients with Alzheimer's and dementia.[11] Later that year, the U.S. National Institutes of Health awarded a $2.8 million grant to researchers at the University of New Hampshire to research care robots.[12] In 2023, *The New York Times* reported on a pilot program for deploying robots in both care facilities and individual homes in "Italy's most innovative region for elder care."[13]

Meanwhile, as the frontier of AI capabilities has been dramatically advancing over the past ten to fifteen years, we are seeing the AI-research community engage more and more explicitly with normative questions of ethics, safety, and control: in particular, how to impart human values into AI systems in the kind of numerical form that a machine-learning system can understand and pursue. This question has come to be known as "the alignment problem," and its corresponding subfield of AI research has come to be known as "AI alignment."[14]

To what extent does the conceptual structure used by the alignment research community resemble a notion of care that might be recognizable to another field?

Though the subject of caregiving seems at a glance to be quite disparate from the field of artificial intelligence, the two were bound together from before the birth of the computer and are in an ever-closer relationship now. So let me begin by unpacking the actual computational mechanisms of the systems being built and deployed today. What we will find is that as the computational techniques for designing and training AI systems change, so does the implied *relationship* between the system and its designer or user. Furthermore, not only is this relationship evolving, but it is moving toward a computational articulation of a *caregiving* relationship. Progress in that direction is considerable – but the differences and gaps are just as striking.

Contemporary AI systems are rooted in a branch of computer science known as reinforcement learning (RL), which began in the late 1970s and early 1980s. RL itself draws heavily from the behaviorist tradition in psychology and is concerned with the maximization of numerical "rewards."[15] In the RL conception, an "agent" exists in an "environment" and learns a "policy" for taking actions that transition it within "states" of that environment. Typically, the agent begins with a randomized policy and learns through some form of trial and error to take actions that maximize the expected value (or discounted expected value) of future rewards. Fundamental to this conception is the "reward function," which is a mapping of combinations of states and actions to scalar-valued rewards. In effect, the system treats its environment as a kind of video game in which it is trying to score points.

The RL framework has been responsible for a number of signature successes in the field of AI, perhaps most notably, and fittingly, in game-playing itself: RL systems came to master the game of backgammon in the 1990s and the game of Go in the 2010s, culminating in the defeat by DeepMind's AlphaGo system of legendary Go champion Lee Sedol in 2016, followed by the number-one-rated Go player at the time, Ke Jie, in 2017.[16]

RL takes the problem of directly writing *code* to pursue a person's objectives with the problem of writing a *reward function* that will incentivize an agent to do what they want. It thus frames the human as a "reward designer," and the relationship it imagines, and engenders, is of a superior creating incentives and a subordinate following them. It is up to the human to express their desires or needs as a mathematical object – the reward function – and to design reward functions that fully capture those desires.

In practice, reward design is very challenging, and RL researchers are accustomed to discovering, time and again, that their system is exploiting some loophole in their specified reward function: namely, doing what they asked for, but not what they meant. For instance, in their graduate student days in the 1990s, Google's David Andre and Astro Teller built an RL system to play soccer, and in order to incentivize the system to learn how to score goals, they gave it an incentive – worth a fraction of a goal – for taking possession of the ball. The system learned to approach the ball, vibrate its paddle, and "take possession" of the ball many times per second.[17] In 2016, OpenAI researcher Dario Amodei was training an RL agent to play a boat racing game called Coast Runners; as it would be too complex to directly encode a notion of track position, laps, and placement relative to the other boats, he gave it the more straightforward objective of maximizing in-game points. Amodei believed this would correspond to good racing, but the system learned to quickly veer off of the track into a harbor that contained a replenishing supply of power-up items, where it would drive in haphazard circles, forever.[18] These examples are par for the course in RL and are a significant part of why the AI-safety community has come to view RL as dangerous.

It's also worth reflecting on the role of incentives in a care relationship. Parenting, for instance, does involve a lot of incentive design, both consciously and unconsciously – and it even has some of the same failure modes. Economist Joshua Gans decided to give his daughter a dollar every time she helped her younger brother use the toilet; he soon discovered she was force-feeding her sibling water in order to make as much money as possible.[19] Cognitive scientist Tom Griffiths praised his daughter for sweeping up crumbs with a brush and dustpan; she then dumped the dustpan out onto the floor, in order to sweep them up again and get a second helping of praise.[20] These are, at the mathematical level, essentially identical to the "reward cycles" of the soccer robot and the boat above. Notice, however, that in parenting, it is the care*giver* who designs the reward structures, and when they do, it is generally a short-term choice that serves their broader aims. It is a tactic, in other words, not a strategy – and certainly not the foundation of care.

We have seen how manually designing a reward function can lead to loopholes and unexpected behavior, but this is not the only drawback of reinforcement learning. What *is* the reward function that best corresponds to winning a boat race? Or keeping a home tidy? For all its successes, RL does not offer us a way forward in the cases in which we cannot easily formulate an explicit mathematical representation of the behavior we want.

The next major step forward for the field of AI, around the turn of the millennium, was to turn the discovery of a proper reward function for a task into – itself – a problem for the machine to solve. From this insight came the technique known as *inverse* reinforcement learning (IRL). If a reinforcement-learning agent is tasked with finding the right set of behaviors (the right "policy") to maximize a given reward function, then inverse reinforcement learning goes the other direction: given a policy – in this case, observations of human behavior – can the agent infer the reward function the human appears to be pursuing?[21] If so, then the agent can adopt that reward function as its own (and use standard RL to translate that reward incentive into actions of its own).

By the late 2000s, this idea had proven itself in a series of successes, perhaps most dramatically the "Stanford helicopter" work by a team of computer scientists including then doctoral student Pieter Abbeel and his advisor Andrew Ng to design a radio-controlled (RC) helicopter that would train itself to perform complex autonomous stunts. It would do this by observing demonstrations provided by human RC pilots and then inferring numerical "reward models" to capture what those pilots were attempting to do. In other words, it would turn stunts into math. Having a numerical description of a given stunt, it could then use standard RL techniques to learn the set of actual behaviors – the torques and accelerations and corrections – that would enable it to perform that stunt.[22] Subsequent work has shown AI systems capable of inferring numerical reward functions to describe everything from taxi-driving to the act of putting dishes in a dish rack.[23] Again, this makes for a significant extension of AI – into domains where we can directly show what behavior we want without needing to specify it in numerical terms.

There are fundamental connections between the computer-science literature on IRL and various concepts in developmental cognition that suggest that we humans have some kind of innate "IRL" capacity and drive. For instance, psychologist Felix Warneken studies the developmental roots of altruism, cooperation, and helping behavior in humans, and has demonstrated quite strikingly that humans possess an intrinsic ability to infer the goals of others and desire to help others achieve those goals. Children as young as eighteen months of age can, for example, observe an adult trying to pick something up out of reach or open a door with their hands full, and the children will spontaneously help.[24] (Notably, this is multiple years before they are able to pass the "Sally–Anne test," which suggests that inferring others' *goals* happens significantly earlier in development than inferring their *beliefs*.)[25] The instinctive human helping behavior also, even by eighteen months, appears to exceed the capacities of our nearest primate kin.[26] So it would seem that this impressive ability to infer others' goals, and the corresponding drive to pitch in, is more or less hardwired and nearly unique among the animal kingdom.

IRL transforms the implicit relationship of human and machine once again: from manager and subordinate to something more like teacher and apprentice.[27] Here we begin to see certain aspects of caregiving beginning to formally enter into the technical AI research literature. An IRL system, as we've seen, rather than being handed an explicit objective, begins by observing its human user, then infers the objective the human appears to be pursuing, and finally adopts that inferred objective as its own. There are echoes here of several of the other essays in this volume. For instance, Eric Schwitzgebel discusses the idea of our concern for others as being rooted in an empathic reaction of coming "to want or loathe what they want or loathe."[28] Ashley J. Thomas and colleagues describe how aspects of the relationship between a carer's goals and the cared-for person's goals can represent a reversal of a normal power relationship: namely, instead of the more powerful and capable individual subordinating the other to carry out their own goals, they do the opposite and assign the goals of the less capable, cared-for person to themselves.[29]

This is indeed an important dimension of care, and IRL does seem to capture aspects of a caregiving relationship. There are nontrivial technical challenges, to be sure: for instance, "indexical" issues where we must take care that the AI system has the correct frame of reference when inferring the reward function to pursue. If it sees me reaching for a coffee cup, it should pursue the reward function for getting *me* the coffee, not obtaining the coffee for *itself*.[30] Handled correctly, the IRL framework allows us to imagine a domestic robot, for example, that can do approximately what an eighteen-month-old can do: see us reaching for an object beyond our grasp and hand it to us, or see us approaching a door with our hands full and open the door. In elder care, we could imagine such a system helping a human to stand up, to traverse to the bathroom, and so forth.

With this said, IRL – and more broadly the adoption of a cared-for person's goals as the caregiver's own – does not by itself fully constitute what we would want or expect from a caregiving relationship. To start, IRL is by default limited to the things that we ourselves can demonstrate, even if imperfectly. For a child with limited motor skills, or an elder with limited mobility, this might pose a challenge. Second, there are many aspects of care that involve providing help in ways not explicitly asked for or modeled. Finally, caregiving – especially for children – often requires *denying* explicit requests and physically intervening *against* behavior, rather than facilitating it. What reward function does this sort of caregiving behavior pursue?

The current state of play in AI alignment research can be said to have begun with a 2017 collaboration between DeepMind and OpenAI, then the world's two premier AI research labs, centered on the question of how to get a simulated bipedal robot to perform a backflip.[31] At first glance, this was simply the helicopter project with a different form factor. But there was a subtle, and crucial, difference: while the Stanford helicopter project used expert RC pilots to supply the demonstration data, it's nearly impossible to get a bipedal robot to perform a backflip using buttons and joysticks. (And most people can't do a backflip, so that form of demonstration was also out.) Despite the fact that people cannot specify a backflip directly in numerical terms, nor can they demonstrate one, they can nevertheless immediately recognize a backflip when they see it.

Might that be enough?

The system would begin by wriggling around at random, and then present the user with two video clips and ask them which they preferred: which was infinitesimally closer to what the user had in mind? The user would select one of the two clips, and the process would repeat. After just a few hundred of these comparisons, over the span of about an hour, the robot would be doing beautiful, picture-perfect backflips and sticking the landing.

This procedure has come to be known as "reinforcement learning from human feedback," or RLHF. OpenAI wasted little time in transferring this methodology from a kinesthetic domain to a linguistic one. Soon they were asking crowdworkers which of two passages was a better summary of a document, or which of two answers to a question they preferred.[32] Crowd-worker preferences are used to build a "reward model" that assigns numerical rewards to language outputs, and that reward model is used in turn to create a text-dialog system that learns to generate responses consistently rated highly by the reward model. This is the process behind the breakthrough success of ChatGPT and the many LLMs that have followed in its wake.[33]

RLHF once again shifts the relationship between human and machine. Compared to IRL, which takes a roughly "second-person perspective," adopting the user's goals directly, RLHF can be thought of as taking a roughly "third-person perspective": it presents the response that would be maximally approved of by a focus group. This is a sort of *democratic* notion of care, for better or worse.[34] Indeed the question of whose values – whose reward function – these systems embody has become central to this technology and is likely to remain so. The exact degree of input that is appropriate from states, the companies that build these systems, the third-party raters, and the individual users themselves is not obvious.

Having established, broadly, the mathematical foundations of human-AI interaction as they stand in the mid-2020s, at the precipice of a broad deployment of caregiving technologies – large and small, physical and virtual – we are now in a position to consider the conceptual issues that will shape how these systems behave – and how they ought to.

I opened this discussion with points of reference in the science-fiction canon, and it is worth revisiting those texts with the framework of AI alignment now more firmly in mind. Remembering that both Forster and Bradbury present us with what are essentially *cautionary tales*, we can use the Machine and the Happylife Home as foils, and, in the context of real-world AI alignment, see what they reveal to us about a normative account of machine care. The first of these themes is the combination of acceptance and empowerment.

In "The Machine Stops," Forster's humans come to think of the Machine in terms that range from the parental to the divine: it "feeds us and clothes us and houses us; through it we speak to one another, through it we see one another, in it we have our being." Yet all is not well – not at all – with the kind of care that the Machine provides. For one thing, we come to learn that "Each infant was examined at birth, and all who promised undue strength were destroyed." Forster's narrator describes this as if it were regrettable but necessary: "Humanitarians may protest, but it would have been no true kindness to let an athlete live; he would never have been happy in that state of life to which the Machine had called him; he would have yearned for trees to climb, rivers to bathe in, meadows and hills against which he might measure his body." Here is perhaps Forster's first lesson for us about the nature of care. Care requires the caregiver to accept the cared-for *as they are*. There is very clearly something wrong with a caregiver *killing* someone for whom their style of caregiving would not be helpful.

Tragically, the human relationships in "The Machine Stops" suffer from precisely this same fault. That Vashti's son Kuno needs her to visit him *in person* is our first clue. He wishes to be seen (both literally and figuratively): to be understood, accepted, recognized, not judged. He understands that he cannot get this from the Machine, nor from his holographic interactions, including with Vashti herself. Unfortunately, we learn that he cannot get it from Vashti either. Her empathy is limited, and her visit brief. By existing in a world in which at least a certain category of human needs is so routinely and automatically met, they have lost a core part of their humanity: the ability to support one another.

Over the course of the story, Kuno radicalizes. "Cannot you see," he says, "that down here the only thing that really lives is the Machine?" It caters to human desires in an immediate sense, but the shape of their lives, the nature of their relationships to each other, their sense of imagination and of what is possible, are all confined within the terms the Machine sets. That is not care.

True care must include, crucially, empowering people to care for each other, and also to no longer *need* care. In this, Forster's Machine is a failure. It caters to a subset of needs while fundamentally disempowering people: from caring for each other, from caring for themselves, and most of all from a life independent of the Machine itself. "We created the Machine, to do our will, but we cannot make it do our will now," Kuno says. "The Machine develops – but not on our lines. The Machine proceeds – but not to our goal."

Likewise in Bradbury's vision, the family's relationship with the Happylife Home oversteps the mark when it disempowers them as caregivers for one another. George and Lydia hire a psychologist to assess them, and he admonishes them: "You've let this room and this house replace you and your wife in your children's affections. This room is their mother and father, far more important in their lives than their real parents."[35] We have seen how, in children, the impulse to help others is a deeply rooted one, present almost from birth. This, it would seem, is one of the few needs that neither the Machine nor the Happylife Home can provide.

The Home is described in terms that are sometimes inspiring: "the nursery caught the telepathic emanations of the children's minds and created life to fill their every desire."[36] But more often, we see its effect on the adults and children alike as enfeebling. When the father, George, announces that he plans to turn the machinery off for a period, the children rebel: "That sounds dreadful! Would I have to tie my own shoes instead of letting the shoe tier do it? And brush my own teeth and comb my hair and give myself a bath?"[37]

In the real world, we often hear techno-optimists arguing that humans can use the time and energy that future AI systems will free up from errands such as these to pursue intrinsically meaningful activities like the arts. In Bradbury's conception, however, the Home's enfeeblement comes equally to the arts. "I didn't like it when you took out the picture painter last month," says the son, Peter. "That's because I wanted you to learn to paint all by yourself, son," George replies. "I don't want to do anything but look and listen and smell; what else *is* there to do?"[38] The machine has reduced participation to passive consumption.

The celebrated Lebanese-American poet Kahlil Gibran, in his book *The Prophet*, uses the metaphor of an archer to describe parenthood: "You are the bows from which your children as living arrows are sent forth."[39] It is a process of preparing the child to be free and self-sufficient. Indeed, parenthood involves, as psychologist Nim Tottenham puts it, a "seeming paradox: initial dependence gives rise to independence."[40] Of course, later-in-life care, and in particular hospice care, cannot have this exact character. But it still retains something of its spirit: to the extent possible, the caregiver prepares the cared-for person for an experience of their own, whether that experience is early adulthood or death. The caregiving relationship may be good in itself, but it is not an end in itself.

Ironically, the second theme of caregiving exists in a slightly paradoxical tension with the first. Despite the fact that caregiving requires us to see and accept the cared-for person on their own terms, and to empower them to pursue their goals, including the goal of no longer needing our care, caregiving, especially of children, is *not* carte blanche. Indeed, sometimes the most caring thing a parent can do for their child is to physically intervene between the child and the object of their desire – or simply to say *no*.

On what basis can this be justified?

Perhaps nothing in science fiction more memorably embodies the horror of a machine-human relationship breaking down than the moment in *2001: A Space Odyssey* when HAL denies Dave's request to open the doors to let him back on the ship: "I'm sorry, Dave, I'm afraid I can't do that."[41] And yet Bradbury points out that there are horrors of acquiescence, too. The children in "The Veldt" become increasingly disturbed and moody, and the virtual world their nursery creates for them amplifies, rather than mollifies, this darkness. Their play space becomes something violent and eerie: namely, the titular veldt, in which lions and vultures feed on flesh while screams echo in the distance. The psychologist that George and Lydia hire is instantly concerned, concluding that "the room has become a channel toward – destructive thoughts, instead of a release away from them."[42] It is a line that feels discomfitingly allegorical for any twenty-first-century users of recommender systems and social media.

By default, the "revealed preferences" or "reward function" of a compulsive gambler, say, or a compulsive shopper, put an IRL system in the position of an *enabler*. On what basis, then, do we – and might a machine – *deny* the apparent wants of a human user?

There are a number of theories that are perhaps best explored in the philosophy literature, but we can easily enumerate several candidates.

Perhaps we, as parents, simply have our *own* reward function, which can conflict with the assumed goals of the child's. In other words, our desire to have our child not be electrocuted overrides our child's desire to put a metal object into an electrical socket. RLHF embodies a certain communal (if hegemonic) form of this: today's language models will typically decline to assist a user who wants to build a bomb, extort a coworker, commit fraud, or anything else that violates the preferences of certain others (be it the state, the company, and/or the focus group who provided preference data).

Perhaps we assume not only the child's *present* goals but some notion of the goals of their *future self*; surely the adult our child will become will be grateful we didn't let them electrocute themselves as a child, and they might even be grateful that we limited their candy intake and screen time. We have seen stirrings of this sort of movement in critical perspectives on technology: for instance, the Time Well Spent movement of 2016, which encouraged social-media companies to optimize for the *retrospective* preferences rather than in-the-moment impulses of their users.[43]

Perhaps we have some way of understanding that human goals are sometimes in conflict with one another, and as carers, we aspire to serve the "higher" purposes.

AI researchers are beginning to imagine ways of approaching these ideas within the context of reward modeling and alignment.[44]

And perhaps we have some more objective notion of well-being – we care not only about what you *want* but what's *good for you*. Neuroscientist Kent Berridge, for instance, has shown that "wanting" and "liking" comprise two distinct reward systems in the brain.[45] It's not clear which form of rewards social-media companies, for instance, are even *trying* to cater to. There is clearly an information asymmetry to be overcome here. From the perspective of, say, developers at Netflix, they have a wealth of data about what people will click and how long they will watch it. It's much less clear whether a late-night TV binge was *good* or *bad* for them – either in their own retrospective opinion or according to some more objective metrics. But true care aspires to go beyond the cared-for's needs in the moment, and so should our machine helpers, even at their most quotidian.

We have seen, in sum, how deeply ingrained the notion of machine care is, not only in the science-fiction imagination – where it ranges from the utopian to the horrific – but also in the aspirations of the field of artificial intelligence, and in the minds of policymakers looking to artificial intelligence for solutions to a future crisis-level shortfall in care workers.[46] As AI alignment research has progressed by stages – from code to rewards to demonstrations to preferences – so has the relationship that increasingly pervasive AI systems have with their human designers and human users. This progression has come to resemble, at least in certain dimensions, a relationship of care – but there is much to be desired, many open problems to be addressed, and many normative questions to be considered.

It is often said that we don't fully understand something until we've taught it to someone else; indeed, the very act of teaching something is often an important last step in distilling or sharpening our own inchoate knowledge. The prospect of machine care is just such an opportunity. As is so often the case, the process of trying to formalize core aspects of the human experience is revealing to us what care really *is* – and perhaps even how much we have yet to understand about it. Let us take this moment, then, as an opportunity – if a somewhat urgent one – to confront and explore just what it means to care and be cared for, including by one another.

ABOUT THE AUTHOR

Brian Christian is an author and researcher whose work explores the human implications of computer science. He is affiliated with the Human Information Processing Lab at the University of Oxford, the AI Policy and Governance Working Group at the Institute for Advanced Study in Princeton, N.J., and the Center for Information Technology Research in the Interest of Society and the Center for Human-Compatible AI at the University of California, Berkeley. He is the author of *The Most Human Human* (2011), *Algorithms to Live By* (with Tom Griffiths, 2016), and *The Alignment Problem* (2020).

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Paying for Expanded Care Provision

Robert H. Frank

Children receiving better care grow up earning more, paying more in taxes, committing fewer crimes, and needing less help from government. That these and many other benefits of investment in care cannot be captured by private parties is what underlies the powerful case for public investment. Yet many voters resist such investment in the belief that the necessary taxes would require painful sacrifices. This belief, however, rests on a simple cognitive illusion. Since the wealthy already have what anyone might reasonably need, their ostensible concern is whether higher taxes would make it more difficult to buy life's special extras. But because such things are inherently in short supply, the ability to purchase them depends almost exclusively on relative bidding power, which is completely unaffected by top tax rates.

In a landmark 2014 study, economists Raj Chetty, John Friedman, and Jonah Rockoff found that elementary school students who had been assigned to better teachers (as measured by their effect on standardized test scores) are less likely to bear children as teenagers and more likely to attend college.[1] Chetty, Friedman, and Rockoff also estimated that replacing a poor teacher with an average one would boost the present value of students' lifetime income by approximately $250,000 per classroom. Students taught by better teachers not only earn more and pay more in taxes, but they also commit fewer crimes and need less help from government-supported programs.

These findings suggest that investments in higher quality teaching would yield enormous dividends. But as with other investments in care provision discussed in this volume, a large proportion of the relevant returns is public. Because individuals in a position to make the necessary investments cannot capture these returns, private incentives are insufficient to secure these resources. That, in a nutshell, is the case for public investment in care.

In a well-functioning democracy, voters would empower legislators to invest in additional care whenever the returns from doing so exceed the cost. But as other essays in this volume suggest, that does not appear to be happening in the United States.

Many government officials seem to recognize that the nation would benefit from substantially greater investment in care provision. The proximate cause of the shortfall is taxpayer resistance. Voters might acknowledge that greater investment

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in care would yield high returns, but they also appear to believe that those returns would not compensate for the consumption reductions required by higher taxes.

In this essay, I will describe simple, unintrusive changes in tax policy that would more than suffice to finance major increases in care provision, and also to eliminate shortfalls in other important categories of public investment. The central claim I will defend is that taxpayer resistance to these changes stems from a garden-variety cognitive illusion that paying higher taxes would make it more difficult to buy life's special extras.

Economic orthodoxy's claim that market incentives promote efficient outcomes rests on the deeply implausible assumption that the satisfaction provided by any good is a function of only its absolute attributes. That is clearly not true of an interview suit. If you are one of several similarly qualified applicants aspiring to land the same investment banking job, it is strongly in your interest to look good when you show up for your interview. But looking good is a relative concept. It means looking better than rival candidates. All else equal, if they show up in three-hundred-dollar suits off the rack, you will be more likely to make a favorable first impression, and more likely to get a callback, if you show up in a bespoke suit costing several thousand dollars.

Recruiters may not be able to recall even the color of the suit you wore, but they will have sensed whether you looked the part. Spending more is thus rational from the individual job seeker's perspective, but irrational from the perspective of job seekers as a group. They may understand that it would be better if all had spent less. But if others were spending more, no one would have reason to regret spending more as well.

Evaluation is often heavily context-dependent, which has profound implications for welfare economics. The behavioral scientists who study the determinants of human flourishing have produced a large and contentious literature that speaks to this claim.[2] One of the least controversial and most consistent findings in this literature is that, beyond a point long since passed in the industrial nations, across-the-board increases in many forms of private consumption yield no measurable gains in either health or life satisfaction. When all mansions double in size, those living in them become neither happier nor healthier than before. Nor are marrying couples any happier today than in 1980, even though constant-dollar outlays for their wedding receptions are now more than three times what they were then.

Most income gains since 1980 have accrued to people in the top fifth of the earnings distribution, and within even that group, the lion's share went to the highest earners. Spending levels for these people were already well past the point at which further increases served merely to shift the frames of reference that shape what is deemed adequate.

An imposing body of careful scientific research thus provides no reason to believe that Americans were meaningfully better off in, say, 2019 (the last year before the COVID-19 pandemic began) than in 2012, even though the inflation-adjusted total value of the nation's goods and services was more than $3 trillion higher in 2019.

The waste we incur on a grand scale would be of little interest if there were nothing practical that could be done about it. Yet just a few simple, unintrusive policy changes could improve matters greatly. For instance, we could scrap the progressive income tax in favor of a far more steeply progressive tax on each family's annual consumption expenditure. People would report their incomes to the tax authorities as they do now, and then document how their stock of savings had changed during the year, as many already do for tax-sheltered retirement savings accounts. Taxable consumption would then be calculated as income minus savings minus a generous standard deduction. Tax rates would start low, then escalate as taxable consumption rose.

Taxing only spending would require that rates on the highest levels of taxable consumption be higher than the highest current tax rates on income. They could indeed be much higher since rates under the current income tax are constrained by the effort to not inhibit savings and investment. (Under a progressive consumption tax, higher top rates actually encourage savings and investment.)

This simple policy change would also encourage people to choose smaller houses, spend less on automobiles and interview suits, and reduce outlays on wedding receptions, coming-of-age parties, and the like. Because those changes would merely shift the relevant frames of reference that define what we consider to be adequate, they would be essentially painless. In contrast, revenue from the tax could fund increased investments in care, medical research, infrastructure refurbishment, climate change mitigation, and a host of other things that actually matter.

If higher taxes would pay for public investments whose utility would more than compensate for the corresponding reductions in private consumption, why don't voters generally, and prosperous voters in particular, support politicians who favor those investments?

My answer is that voter resistance stems from a simple cognitive illusion: voters believe that having to pay higher taxes would make it more difficult to buy what they want. Like many illusory beliefs, this one may seem self-evident; yet for prosperous voters, it is completely baseless.

When someone asks, "How will an event affect me?" the natural first step is to try to recall the effects of similar events in the past. When high-income people try to imagine the impact of higher taxes, Plan A is thus to summon memories of how they felt in the wake of past tax increases. But that strategy does not work in the current era because most high-income people alive today have experienced steadily declining tax rates. In World War II, the top marginal tax rate in the United States was 92 percent. By 1966, it had fallen to 70 percent. In 1982, it was 50 percent, and it is now just 37 percent. Apart from brief and isolated increases almost too small to notice, top marginal tax rates have fallen steadily since their World War II peak. Similar declines have occurred in other countries.

When Plan A fails, we go to Plan B. Because paying higher taxes means having less money to spend on other things, a plausible alternative cognitive strategy is to estimate the effect of tax hikes by recalling earlier events that resulted in lower disposable income – an occasional business reverse, for example, or a losing lawsuit, divorce, or housefire, maybe even a health crisis. Rare is the life history that is completely devoid of events like these, which share a common attribute: they make people feel miserable.

More important, such events share a second feature, one that is absent from an increase in taxes: they reduce our own incomes while leaving others' incomes unaffected. Higher taxes, in contrast, reduce all incomes in tandem. This difference holds the key to understanding what I have elsewhere called "the mother of all cognitive illusions."[3]

As most prosperous people would themselves be quick to concede, they have everything anybody might reasonably need. If higher taxes pose any threat, it would be to make it more difficult for them to buy life's special extras. But like an effective interview suit, a special extra is a relative concept. To be special means to stand out in some way from what is expected. And almost without exception, special things are in limited supply. There are only so many penthouse apartments with sweeping views of Central Park, for instance. To get one, a wealthy person must outbid peers who also want it. The outcomes of such bidding contests depend almost exclusively on relative purchasing power. And since relative purchasing power is completely unaffected when the wealthy all pay higher taxes, the same penthouses end up in the same hands as before.

Prosperous Americans might reasonably object that higher tax rates would put them at a disadvantage relative to oligarchs from other countries in the bidding wars for trophy properties in the United States. But that disadvantage could be eliminated easily by the imposition of a stiff purchase levy on nonresident buyers.

The mother of all cognitive illusions implies that societies can enjoy the fruits of additional public investment without having to demand painful sacrifices from anyone. If that strikes you as a radical claim, that is because it is. Yet the claim follows logically from only one simple premise: that beyond some point (again, one that has long since been passed in the West), across-the-board increases in most forms of private consumption do little more than raise the bar that defines what people consider adequate. No one in the scientific community seriously questions this premise.

The bias toward private over public spending bears a striking resemblance to the modern left's description of market failure, which was shaped in large measure by the writings of economist John Kenneth Galbraith. As he put it in his 1958 book *The Affluent Society*, "The family which takes its mauve and cerise, air-conditioned, power-steered, and power-braked automobile out for a tour passes through cities that are badly paved, made hideous by litter, blighted buildings, billboards, and posts for wires that should long since have been put underground."[4] The automobile features he described are no longer considered luxuries. If he were alive today, however, he would still insist that people would be happier if society spent more on public goods and less on private goods. But he and I propose strikingly different accounts of the causes of this imbalance.

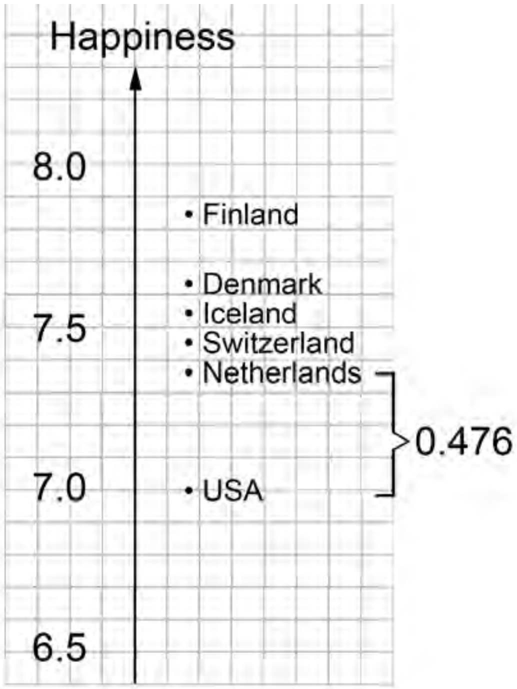
For example, in his 1967 book *The New Industrial State*, Galbraith attacked free-market enthusiasts' insistence that consumer demands stem from informed decisions based on self-interested preferences, which firms try to satisfy in the least costly ways.[5] In place of that narrative, he offered his "revised sequence," which echoed Karl Marx's disdain for powerful corporate interests: firms offer what is cheapest and easiest for them to produce, then use Madison Avenue wizardry to bamboozle consumers into buying it.

In contrast, the account of market failure I have sketched in this essay accepts economic orthodoxy's assumptions that consumers are rational and that markets are workably competitive. Its point of departure is the observation that choices we find attractive as individuals often lead to outcomes we dislike. As in the familiar stadium metaphor, all stand to get a better view, only to discover that no one sees any better than if all had remained comfortably seated. As I put it in the title of a forthcoming book, standing to see better is *Smart for One, Dumb for All*. The emphasis on private consumption over public investment results from a similar conflict between individual and collective interests.

Galbraith's account of spending imbalance has drawn heavy criticism from free-marketeers, who have long voiced skepticism about his claim that consumers are easily bamboozled. They remind us that although the Ford Motor Company launched its new Edsel with one of the biggest ad campaigns in history, the car failed miserably and was discontinued within two years. To those who insisted that advertising can persuade people to buy useless products, critics responded plausibly that Madison Avenue should be even more effective at promoting goods that deliver real value.

Although Galbraith and I offer different reasons for wasteful spending patterns, we both claim that people fare better in societies where there are higher rates of public investment. Available evidence supports this claim. Much of this evidence comes from the *World Happiness Report* (Figure 1), in which people in countries around the globe are periodically asked the following question:

Figure 1
Average Happiness Levels Across Countries



Source: John F. Helliwell, Richard Layard, Jeffrey D. Sachs, et al., *World Happiness Report 2022* (Gallup, Oxford Wellbeing Research Centre, the UN Sustainable Development Solutions Network, and the WHR Board, 2023). Figure by the author.

on a ten-point scale, how satisfied are you with your life as a whole these days (where zero means "not at all satisfied" and ten means "completely satisfied")?[6]

By this simple metric, Finland, Denmark, Iceland, Switzerland, and the Netherlands are consistently among the five happiest among countries worldwide. Those five and the next ten countries in the world happiness rankings tax top earners more heavily and spend significantly more on public goods than the United States (ranked sixteenth) does.

Although being happy is of course not the only goal in life, there is ample reason to view higher happiness scores as a good thing. As the *World Happiness Report* points out, higher scores are closely linked to country characteristics known to promote human flourishing. These include, among others, income per capita, "social support, healthy life expectancy, freedom, generosity, and [absence of] corruption."[7] It is thus a reasonable conjecture that most people would consider it a positive outcome if a policy change made them happier without compromising other goals they care about.

Critics have long objected that higher top marginal tax rates would reduce incentives to work hard and take risks. But those concerns find little support in cross-national studies, some of which use a country's number of billionaires per capita as a measure of the strength of its entrepreneurial incentives. For instance, although the top marginal tax rate in Sweden is 52.3 percent, more than 15 percentage points higher than in the United States, the country has more than 50 percent more billionaires per capita than the United States.

If spending patterns that seem smart for one are in fact often dumb for all in the ways I have described, then simple, unintrusive tax policy changes could eliminate sufficient waste to cover not only the shortfalls in care investment identified by other authors in this volume but also those in many other pressing public investment categories.

AUTHOR'S NOTE

Portions of this essay are adapted from my forthcoming book *Smart for One, Dumb for All: Reflections of a Radical Pragmatist*.

ABOUT THE AUTHOR

Robert H. Frank is the H. J. Louis Professor of Management Emeritus and Professor Emeritus of Economics at the Johnson Graduate School of Management at Cornell University. He is the author of *Under the Influence: Putting Peer Pressure to Work* (2020), *Success and Luck: Good Fortune and the Myth of Meritocracy* (2016), and *The Darwin Economy: Liberty, Competition, and the Common Good* (2012), among other books.

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A Worldview of Care & a New Economics

Elizabeth Garlow & Anne-Marie Slaughter

This essay draws upon scientific insights around care and caregiving, alongside new economic proposals, to distill a worldview of care. This worldview proceeds from an abstraction of human nature and needs that is both individual and relational, departing from Maslow's hierarchy of needs by putting the need for belonging and connection with others on the same plane as self-actualization. In doing so, we reflect on the ways care is only narrowly valued in our status quo economy and current systems of measurement, and encourage a more holistic understanding of value and wealth, rooted in relational terms. We put forth some ideas for how policymaking processes could draw upon a worldview of care to support economic reforms.

Imagine a group of new parents sitting in a circle, feeding, soothing, and talking to their infants. Within our status quo economy, the only way to capture "value" from these activities is if each parent passes their child to another parent and charges for the services they provide. Some kind of "transaction" must occur. This example illustrates one of the many ways that market-based values and relational values diverge. It is drawn from the work of economist Tim Jackson, who argues that care and other sectors in which "time spent by people in the service of each other is the core value proposition" are chronically undervalued in an economy where "rising productivity is viewed as the engine of progress."[1]

When we look at those parents and their children, we see care as a service embedded in care as a relationship, a profound relationship, and the first one infants experience. To develop an economy and society that can properly uphold the value we assign to that relationship requires an ability to understand, appreciate, and, where appropriate, measure the value not just of goods and services, but of connection to other humans. We cannot capture the value of care with the economic measures that exist today.

This essay offers a conception of human nature and needs that encompasses individual and relational dimensions, leading to a richer conception of human nature and development. Care is at the core of that development, but its significance goes beyond whatever physical or emotional need it meets. That first experience of connection to other human beings then leads to broader experiences of care

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and connection shared across a lifespan. We argue that recognizing the essential nature of care and connection for our well-being underpins a relational paradigm that transforms how we measure value in our economy and society more broadly.

All around us, alarms are sounding on the devastating consequences of growing disconnection in our society, and the way it is bound up with an economics rooted in market fundamentalism. We draw on the findings of our colleagues about the science of caregiving, using their insights to flesh out a stylized mode of human nature, *sapiens integra*, that places equal weight on individual and relational needs.[2] We also describe and reflect on current economic proposals and experiments that offer an alternative to the status quo. These proposals display commonalities that anchor relationships of care between humans in a larger context of human and planetary connection. We work inductively to identify these strands and weave them together with scientific insights to generate a worldview of care.

We suggest that this worldview can undergird reforms needed to uphold healthy and fulfilling connections to past, present, and future generations of people, to other-than-human beings of all kinds, to our living planet, and perhaps even to a larger transcendental presence that many call the divine.[3]

In our current industrial-digital economy, which measures value in terms of the quantity, price, and consumption of goods and services, care is defined as a service. It *is* a service, in the sense that it is something one human being does for another, as opposed to a "good," which is an object that can be bought and sold. But this definition captures only the physical activities of care such as feeding, bathing, dressing, accompanying. It ignores or denies the emotional dimension that arises from a connection between two human beings. From this perspective, the essence of care is not a service but a relationship.[4] In fact, as our friend and colleague Hilary Cottam suggests, care is best understood as both a service *and* a relationship. [5]

The word "care" itself carries a strong emotional valence. "I care for you" generally means "I like or love you."[6] "I care about you" at least means friendship. "I will take care of you" suggests a relationship of affection and protection. This kind of relationship is common in families, whether biological or chosen, or among friends and community members who know and value one another, and typically doesn't include paid services. But even in the context of paid caregivers, when the carer and the care recipient have no prior emotional connection, for a service to be worthy of the word *care*, the carer must, at minimum, treat the person being cared for with consideration, respect, and concern for their well-being.[7]

The core of this relationship is a sustained connection to another human being. Other essays in this volume summarize the state of knowledge in neuroscience, psychology, evolutionary biology, and other disciplines about the precise nature of that relationship in different contexts. For children, it should ideally be a relationship that provides security, safety, protection, a buffer from stress, and a foundation for trust.[8] In their essay, Elizabeth Fetterolf, Andrew Elder, Margaret Levi, and Ranak B. Trivedi explore the extent to which robots might substitute for human carers in caring for seniors, reflecting on the vital importance of "interactions and dyadic human relationships to patient well-being." Interestingly, they suggest that it may be the inevitable ups and downs of a human-to-human relationship – the "unpredictability, mistakes, and emotional risks taken by caregivers" – that cements the necessary emotional bond, as contrasted with the invariant programmed reactions of a robot.[9] We argue a similar dynamic could be present in long-term care, particularly in instances of caring for those with disabilities and chronic illness.

Somewhat paradoxically, however, the best care recognizes dependence while encouraging independence. According to Ashley J. Thomas, Christina M. Steele, Alison Gopnik, and Rebecca R. Saxe, "The goal in caregiving is not to pool individual capabilities but often to increase the capabilities of the cared-for."[10] To the extent possible, carers should enable autonomy, encouraging growth and development in children or any care recipients who can still expand their capabilities.[11] Physician Atul Gawande has described this autonomy as "the freedom . . . to be authors of our own lives."[12] A carer should still be able to provide an elderly person with what he calls their "best day possible," however they define it.[13]

Since human beings, as Maisha T. Winn and Nim Tottenham explain, are an "an altricial species, a species born without the ability to live independently," we are born with "an innate expectation and need for caregiving."[14] Traditional models of human development, however, assume a linear movement from dependence to independence and back to dependence over the course of human lives. That is physically accurate for most human beings, but clearly inadequate for well-being. Increasingly, with evidence surrounding deaths of despair, indices and policy efforts to measure and prioritize happiness, and the U.S. Surgeon General's report on a national epidemic of loneliness and isolation, it is reasonable to hypothesize an *ongoing* need for connection that can be just as strong as the need to separate, individuate, and lead independent lives.[15]

Over time, connections develop a relational identity – defining ourselves *in relation to* others – that exists alongside an individual identity. Our status as parent, child, sibling, spouse, friend, or community member is a critical part of our overall identity. Indeed, a core driver of the feminist movement was the desire of women to have an individual identity that was more than mother, daughter, sister, wife. At the same time, women have not wanted to give up those relational identities just because they now have more freedom to pursue individual desires and achievements. We want both.

A further dimension of the need for connection is the desire for belonging, the connection to a larger group or community. Sociologist Allison Pugh explores and catalogs different types of "connective labor."[16] After reviewing scores of studies linking loneliness and isolation to negative health effects, she concludes:

"Belongingness is crucial to human thriving . . . 'almost as compelling a need as food.'"[17] Psychologist Abraham Maslow recognized this need long ago in his famous "hierarchy of needs," in which "love and belongingness needs" sit above "safety needs" and below "esteem needs" as motivators of human behavior (Figure 1).[18]

Maslow's hierarchy places the need to connect and belong at a lower level than the need to self-actualize or reach our individual potential. Suppose instead we posit that these dual needs – to connect to others and to separate from them – are equally important, not only in early life, but throughout life; a partial account of fundamental human needs could look like Figure 2.

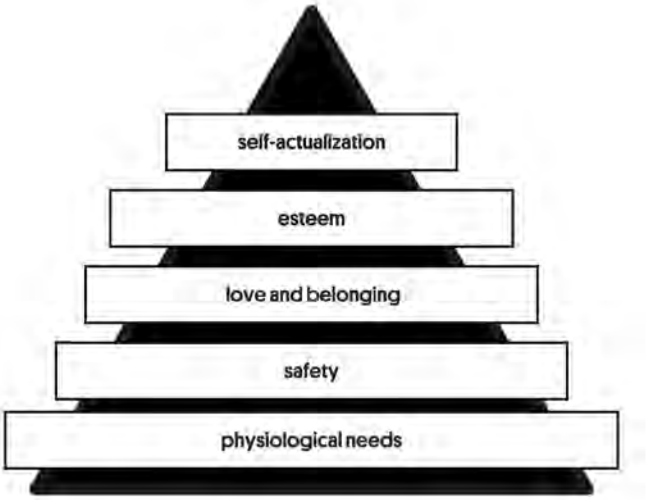
Ongoing work in the natural and social sciences will develop more nuanced and empirically grounded models of human development and motivation. For our purposes, this conception of needs underpins the abstraction of what Anne-Marie Slaughter and Hilary Cottam have called *sapiens integra*, who *"seeks to* develop her unique self and to develop strong relationships with others."[19] *Sapiens integra* is no less and likely far more grounded in science than the Enlightenment abstraction of human nature described as *homo economicus* and in law as "the reasonable man." Alison Gopnik characterizes these assumed beings, which underlie a contractual view both of the market economy and the social contract, as "independent, autonomous, reciprocal decision-makers exchanging goods."[20]

Gregg Gonsalves and Amy Kapczynski posit a dichotomy between care as an intimate activity, a "kind of activity and commitment that happens between *particular* persons, commonly within the family," and as a social activity, "the life-sustaining activities and infrastructures that enable all other things we do."[21] From our perspective, however, it is valuable to array these conceptualizations of care along a spectrum, rather than contrast them (see Figure 3). Both are based on the importance of seeing and creating connection – among humans and between humans and the natural world. The principal difference is the level of activity at which that connection is perceived and practiced.

At one end of our spectrum of connection is a state of oneness or near fusion. Gopnik describes this as "the expansion of the self" to "prioritize the values and interests of another."[22] Less clinically, consider the countless love poems and songs across history in which lovers describe themselves as two hearts beating as one. New parents also often describe the expansions of their identity this way.

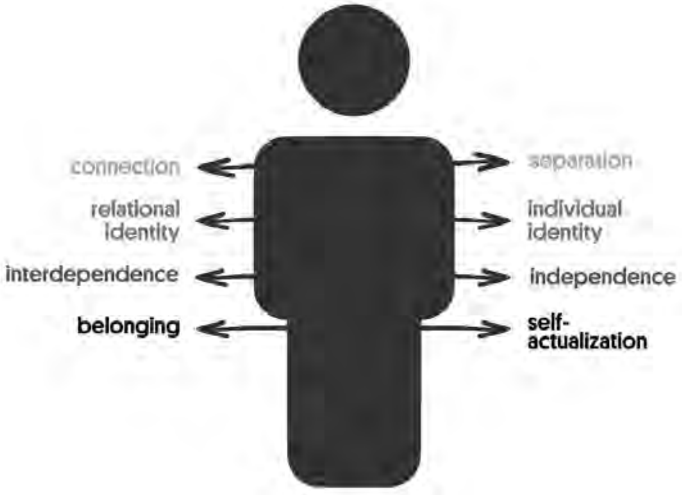
Next to near-oneness are the close relationships and commitments that help define us: we are children, parents, spouses, siblings, friends. Then come a variety of identities that depend on relationships with specific professional carers in our lives: patient, client, student, mentee, advisee. The flip side would include doctor, nurse, therapist, lawyer, teacher, coach, mentor, and many other professions in the "care-plus economy" that involve connective labor.[23] For most of us, our lives will unfold across various points along this spectrum. Consider the dynamics of relational inti-

Figure 1
Maslow's Hierarchy of Needs



Source: Figure by the authors based on Abraham Maslow's theory.

Figure 2
An Account of Coexisting Human Needs



Source: Figure by the authors.

Figure 3
A Spectrum of Human Connection

Source: Figure by the authors.

macy described by activist Mia Birdsong: "We exist, not as wholly singular, autonomous beings, nor completely merged, but in a fluctuating space in between."[24]

This spectrum can easily include the kind of social care that Gonsalves and Kapczynski call for "among intimates, but also in public."[25] Indeed, these are the "activities of provisioning, care-giving, and interaction that produce and maintain social bonds."[26] Care reflects and responds to the vital need for human connection, whether at the family, friend, community, or society level.

Where this spectrum cannot reach is, by very definition, to the "arms-length transactions" that characterize commodified market activities. The phrase "arms-length transaction" implies sufficient distance between two humans that any dealings between them will not be colored by an intimate relationship. In legal and financial contexts, the term is used to indicate parties to an agreement or deal who are independent and on equal footing. Anthropologist and economist David Graeber has argued that our economic system actively requires the breakdown of nonmonetary forms of exchange, which are often seen in caring relationships, thereby making us "strangers" so that we'll use money to manage our economic transactions.[27]

An economy that recognizes the critical role of connection in human well-being would value caring relationships of many different kinds. It would deliver support through adequate wages and benefits for paid caregivers, and new economic and social supports for unpaid caregivers. It would also point to the long-term value of healthy, sustaining connections to nature and the planet as well as to other human beings.

This section uplifts economic proposals that are enacting transformative visions for the economy through relational principles and processes.[28] These, like many other models, originated or gained traction during the COVID-19 pandemic, when our current system's failures were acutely visible and a confluence of flexible public investment and imaginative partnerships rose to meet the moment. What we see in these models is a commitment to creating the conditions to enable care to flourish in our lives.

These proposals reflect a broader movement to transition from a vision of progress rooted in short-term economic growth to holistic and longer-term visions for the thriving of people, places, and the planet. The Wellbeing Economy network of governments around the world point to a desire to question the nature and purpose of the economy.[29] Many nations and communities are asking what truly matters for well-being today and for generations to come. In such inquiries, the purpose of the economy – one system embedded within a broader ecology of systems – becomes to serve our individual and shared well-being, a state of being that requires strong relationships and a sense of belonging.

In the United States, a federal-level effort prompted by the COVID-19 pandemic focuses policymaking on long-term individual and community resilience, while addressing disparities in well-being. The Federal Plan for Equitable Long-Term Recovery and Resilience draws upon the Vital Conditions for Health and Well-Being framework, which outlines conditions necessary for well-being such as "belonging and civic muscle," a "thriving natural world," and "basic needs for health and safety."[30] This effort aims to systematize approaches to policymaking that more effectively and efficiently address issues undergirding individual and community well-being nationwide.

To that end, the U.S. Departments of Commerce and Treasury co-led an effort through the Census Bureau's Opportunity Project initiative in 2022 to create new measures of progress through the use of open federal data and in collaboration with private sector data and technology experts.[31] It is clear that these efforts are not intended to impose a top-down framework for policymaking, but rather serve as organizing mechanisms for federal infrastructure to become more aligned, as well as more people- and place-oriented.

Local places, in turn, are birthing new systems for economic transformations rooted in local context. Such efforts are underway in Washington State, for example, where a coalition of organizations began coalescing around a vision for systemic change in the state's economy during the pandemic, articulating a vision of "an economy that is rooted in democracy and self-determination, is sustainable and equitable, and creates shared economic well-being."[32] The Washington State Department of Social and Health Services convened a technical advisory group to shift the state's thinking on economic recovery through the use of comprehensive measures of progress beyond GDP.

This initiative helped catalyze the "Just Futures" project, a collaborative of advocacy organizations working to engage frontline communities in creating a vision, a definition, and measures for equitable economic recovery, and to hold the state accountable to implementing that vision. The project calls for a shift from a consumerist and colonial mindset to a worldview grounded in caring and sacredness.[33] In this framework, the economy "values care, uses resources conscientiously, prioritizes ecological and social well-being for people and the planet."[34]

The Just Futures project emphasizes insights gained from listening sessions with community members about how they experience Washington's economy and what the government can do to improve it. Amid ample reflection on financial insecurity, insufficient benefits, a lack of dignified working conditions, and other structural barriers, participants also described their desire for essential neighbor and family care, as well as support for navigating assistance programs and accessing essential goods. Many also shared a desire to have resources to engage in more forms of mutual care in their communities.[35] The Just Futures project has committed both to incorporating the knowledge and expertise of those most affected by poverty and injustice and to sharing power and resources with them. Work is ongoing to incorporate community assemblies to cocreate solutions via government funds through the Washington State Environmental Justice Council. Through these strides, Washington is seeking to transform economic and environmental structures from within by valuing care, participation, and cocreation.

Another emergent model is the ʻĀina Aloha Economic Futures (AAEF), a coalition of over 2,700 community members and 540 organizations that have come together to craft a new economic policy framework for Hawaiʻi centered on connection and care for the land and waters (ʻĀina), well-being, and equity.[36] Hawaiʻi has struggled with unemployment, low-wage work, and a high cost of living, making it difficult for many local, particularly Native Hawaiian, residents to thrive. Today the islands rely heavily on fragile supply chains for moving goods to and from the mainland. The pandemic also exposed the fragility of an economy centered primarily on tourism.

The pandemic led to the launch of an economic recovery task force. After requesting and being denied participation, fourteen Native Hawaiians launched an effort to galvanize native voices and values to help inform Hawaiʻi's economic recovery.[37] The AAEF framework was developed to draw upon native Hawaiian values and perspectives to reimagine Hawaiʻi's social and economic fabric. It centers Indigenous Hawaiian philosophy rooted in an ancestral worldview that considers natural systems as existing in relationship, as kin.

> The goal is an economy that takes care of our ʻāina, that is regenerative, that is equitable, that supports the many and not just the few, and that honors the ʻike of our kūpuna (ancestral knowledge) that fed this place in abundance for centuries. Our ancestral economy was circular. Nothing went to waste. It was equitable. This isn't a utopian vision. Hawaiʻi can be a leader in creating an Indigenous circular economy.[38]

The AAEF coalition initiated an extensive, open participatory engagement process to develop concrete proposals reflected in a policy playbook and self-assessment tool. These proposals have sparked policy reforms including a farm-to-school bill mandating that public schools throughout the state source at least 30 percent of school meal ingredients from local producers by 2030; and detailed resolutions for county governments to support a circular economy as a criterion for future policy decisions.[39] With growing input from the community, the coalition also developed the Huliau Action Agenda, which calls for the development of supports that foster family well-being, such as "longer paid maternity and paternity leave, programs that nurture strong and engaged parenting, anger management training, and access to affordable child and senior care centers."[40]

These proposals are inspired by a practice of economics through intimate, place-based relationships developed over generations. This practice includes, for example, looking to historical closed-loop agriculture and aquaculture systems, which continue to be maintained today, and using ongoing observation and experimental learning in nature as our teacher on how to build a regenerative social and economic fabric.

In light of recent natural disasters, the coalition drafted a declaration outlining a set of values to guide state economic planning, pointing to the role of human beings as hosts of the earth and its limited resources.[41] The declaration invites a long-term view, calling for government to embrace "integrative ways to balance power and benefit."

These emerging economic models illustrate dissatisfaction with status quo approaches, even as GDP is rising and official measures of unemployment are falling. Efficient progress across these typical indicators neither guarantees equitable outcomes nor meets deeper needs expressed around care and connection.

The emergent practices described above flesh out what an economy and society might look like with care at the core. If we combine that practice with the scientific findings set forth in this volume of *Dædalus*, building on decades of work in evolutionary biology, psychology, anthropology, neuroscience, and other related disciplines, we can articulate a worldview of care that can be used as both a lens on the world and a foundation for reform. Such a worldview rests on the following propositions:

1. *Strong connections are essential to human health and well-being; disconnection or misconnection can be fatal.* Care is a human being's first experience of positive connection to another human, a connection that is necessary for food, safety, and healthy development. Over the course of a lifetime, those connections correlate strongly with mental and physical health. In contrast, to be disconnected or misconnected (connected to those who abuse, neglect, or exploit

you) is devastating to human health and well-being. As Fetterolf, Elder, Levi, and Trivedi highlight in their essay, today's epidemic of loneliness is especially pronounced among the "fifty-three million family caregivers who shoulder significant responsibilities of managing chronic and serious health conditions among adults."[42] In August 2024, the U.S. Surgeon General issued an advisory on the mental health and well-being of parents, remarking on the tremendous pressures they face.[43] What often goes unquestioned are the structural causes that contribute to the burdens on these caregivers, including growing economic precarity and a lack of time and support, alongside the widespread forces of "status anxiety, and disconnection from meaningful work that afflicts Americans in the age of neoliberalism."[44]

2. *The human experience must be understood through both an individual and a relational lens.* Understanding care as a relationship invites us to move from neoclassical theory's abstraction of *homo economicus,* which Margaret Levi argues we should have rejected long ago, to *sapiens integra,* a whole being who needs both separation *and* connection and who develops in both directions over the course of a lifetime.[45] The resulting life experiences develop both individual and relational identities. Seeing the world through this lens directly challenges foundational assumptions about individual agents constituting society and the economy through their choices. It points to the reality that we can be separate and connected at the same time and that both identities and sets of experiences can and should receive equal weight.
3. *Grounding in care, rather than command and control, encourages horizontal forms of human connection to cocreate systems.* The processes that Washington and Hawai'i have undergone to develop new economic futures frameworks were deliberately relational and inclusive. Through multiple rounds of consultation, representative committees, and community assemblies, there have been multiple pathways for direct input and cocreation. These approaches in Hawai'i and Washington point to the need for sharing power through more inclusive forms of cocreation and cogovernance.[46]
4. *A relational lens opens a broader conceptualization of value and wealth and necessitates new economic measures.* In our current system, care is understood as a service, and the value of that service is grossly misplaced. In a system that uses price as its signal of value and centers productivity, the only way we have succeeded in assigning a high monetary value to care is when it involves advanced credentials. The challenge becomes to develop a "relational economics" that can capture the value of the relationship itself, beyond the service provided within that relationship. Political philosopher Adrien Pabst and economist Roberto Scazzieri argue that "relationships matter more than transactions," considering intergenerational bonds as "more prima-

ry than contract."[47] Today we fail to value many different forms of human grouping, as well as communities of humans and other-than-human beings. Expanding our understanding of value can help shift us out of a lens of commodification and scarcity and usher in genuine wealth through quality relationships and, as Gonsalves and Kapczynski argue, having the time to do what we care about.

Ai-Jen Poo, the United States' leading apostle of care, argued a decade ago that the U.S. "elder boom" offers an opportunity to "reorganize society so that in all phases of life we can count on love, connection, and care."[48] The articulation of a worldview of care can help guide the cultural and policy shifts as well as the transformative economic proposals necessary to make this reorganization happen. While the economy is by definition a system of social connection, in which we engage in production and exchange with one another, market fundamentalism has elevated individualism and competition as the defining characteristics of our human social relations at the expense of care and connection. An economic paradigm that is structurally dependent on the commodification of value fails to facilitate the time and resources to cultivate and engage in authentic connection.

In practice, economic and social policy designed through a lens of care would look very different. This essay does not articulate a comprehensive policy agenda based on a worldview of care; rather, drawing on the conception of human nature and the practical examples we present here, we suggest some concrete policies and outline some of the broader design principles and directional characteristics of policies rooted in a worldview of care.

- *Assume that every worker will be a caregiver and care receiver at some point in their life.* Seeing all human beings in the context of their relational identities (parent, spouse, child, sibling, relative, friend) as well as their individual identities, and given the care needs of all human beings at some point in their lives, it is reasonable to assume that all workers will need various kinds of support in both time and money for caregiving.
- *Provide targeted human and material supports for families with children under five years of age, those engaged in long-term care for people with disabilities and chronic illness, and for seniors who live alone.* Families with children under five face enormous stresses on their money and their time, during a period when strong, secure relationships are essential for the well-being and development of children. We can explore the use of subsidies that provide stability and predictability for those families and that also grow their ability, together with vulnerable seniors, to seek and extend care through their connections.[49]

- *Formally recognize varying forms of commitments to caring relationships.* Policies can support healthy and strong connections in ways that strengthen our capacities for giving and receiving care. There is much room to grow and ritualize forms of connection in groups that expand beyond biological family. As Gopnik has argued, we could and should institute new forms of commitment ceremonies and embrace legal status to formally mark and uphold such intimate connections.[50]
- *Design and deliver policies through relational processes.* Hawai‘i and Washington engaged in robust relational processes, prioritizing participation and public engagement, and creating opportunities to grow in trust and connection through shared events, commissions, and community assemblies.[51] The importance of participation and engaging lived experience is growing as a principle for policy design and delivery. The U.S. federal government is in the process of developing a framework for participation, and more work is needed in this realm.[52]
- *Align public funding and technical assistance to prioritize participation and cocreation.* Hawai‘i, Washington, and other places developing transformative economic proposals have benefitted from flexible funding assistance that catalyzed multistakeholder coalitions and long-term visioning to inform COVID-19 recovery efforts.[53] Policymakers should draw upon learnings from the impacts of such programs to shape future federal funding and technical assistance. We see evidence of that happening with the design of a recent competition implemented by the Economic Development Administration, but the overall level of resourcing has declined.[54]
- *Think and act for long-term community and ecological well-being through care.* Examples in this essay underscore the need for economic relief that serves immediate needs, while also pointing to a bigger transformative vision of how current and future generations can care for themselves and one another. We see this as connected to the argument made by Gonsalves and Kapczynski in their essay that "A political economy and politics oriented to care would require its own theory of value," and requires new legal and institutional innovations.[55] Policies to enhance economic security are not sufficient on their own, but can help create the conditions to work toward long-term structural transformations.
- *Adopt indicators that align with transformative visions and goals for the economy.* New indicators of progress can be tools to promote broader systems change through setting goals, framing issues, creating common terms, and shifting venues.[56] We see this in the vital conditions framework, as well as initiatives developed by Washington and Hawai‘i: vital conditions incorporate the concept of "multisolving indicators," inviting policy "recommenda-

tions in which a change grounded in one vital condition strengthens five or more vital conditions."[57] A worldview of care also elevates the importance of more robust measures such as a national housing loss rate, and those that help us understand Americans' relational lives, embeddedness in communities, and access to time to care and spend on what feels important.[58]

- *Design working lives aligned to social and ecological well-being, and offer time and the ability to use time in ways that are meaningful.* Examples in this essay point to the need not only for jobs to offer financial security and predictable and stable working lives, but also to align to the needs of a society in transition. This includes both the "how" and "what" of our working lives. For example, the AAEF policy playbook proposes "green workforce" jobs and support for regenerative systems and businesses (through which we give as much or more than we take), particularly in the areas of conservation, agriculture, and tourism.[59] A lens of care also invites consideration of how we design working lives with flexible time to contribute to volunteerism and other nonmonetized ways of connecting with and providing for one another.

There is an ache today for something better, for ways of living full lives rooted in what matters to us. From our perspective, this ache points to something quite profound: a longing to experience care and connection more fully with one another, the places we call home, and our planet. We are swimming and often sinking in an economic system that has failed to ascribe value to so much of what helps us flourish.

This essay lifts up the vitality of care and connection in human development, and explores alternative economics in practice. However, these emergent efforts lack a coherent framework that would support a shift to durable economic systems change. A worldview of care that emerges from a richer conception of human nature encompassing our individual and relational dimensions is one possible framing to help move us toward an economics that fully embraces the caring relationships that hold our lives together.

ABOUT THE AUTHORS

Elizabeth Garlow is a Senior Fellow in New America's New Practice Lab and a Co-Founder of Francesco Collaborative. She has published in such journals as *The Longeran Review* and *The Washington Center for Equitable Growth*.

Anne-Marie Slaughter, a Member of the American Academy since 2002, is the CEO of New America and the Bert G. Kerstetter '66 University Professor Emerita of Politics and International Affairs at Princeton University. She is the author of *The Chessboard and the Web: Strategies of Connection in a Networked World* (2017), *Unfinished Business: Women, Men, Work, Family* (2015), and *The Idea That Is America: Keeping Faith with Our Values in a Dangerous World* (2007).

ENDNOTES

[1] Tim Jackson, "An Economy That Works," Centre for the Understanding of Sustainable Prosperity, December 19, 2016, https://cusp.ac.uk/themes/aetw/tj-growing_prosperity.

[2] Hilary Cottam, *Welfare 5.0: Why We Need a Social Revolution and How to Make It Happen* (UCL Institute for Innovation and Public Purpose, 2020), 24. See also Hilary Cottam, *A Radical New Vision for Social Care* (The Health Foundation, 2021).

[3] In his essay in this issue, Zachary Ugolnik reflects on how various religious traditions open up the possibility of care as a relationship not just between the giver and receiver, but nested within other relationships, such as with gods and spirits. This expansive conceptualization of care unsticks us from an entrenched mythology of human nature that has overemphasized the individual at the expense of care and connection with one another, as well as with a deeper sense of meaning and purpose. Zachary Ugolnik, "Divine Care: Care as Religious Practice," *Dædalus* 154 (1) (Winter 2025): 150–165, https://www.amacad.org/daedalus/divine-care-care-religious-practice.

[4] Anne-Marie Slaughter and Hilary Cottam, "We Need a New Economic Category," *The Atlantic*, September 3, 2021, https://www.theatlantic.com/ideas/archive/2021/09/new-economy-caregiving/620160; and Anne-Marie Slaughter, "Care Is a Relationship," *Dædalus* 152 (1) (Winter 2023): 71, https://www.amacad.org/publication/daedalus/care-relationship.

[5] Hilary Cottam participated in the workshops that led to this volume. In one of the discussions, she made the point that instead of seeing care as either a service or a relationship, it can be seen as both, and also in a third incarnation as a kind of longing. We have embraced the dual approach.

[6] Care also has a very different meaning: a worrying responsibility, obligation, or burden. Think of "carefree," Shakespeare's "raveled sleeve of care" in *Macbeth*, act 2, sc. 2, line 49, or the phrase in countless songs and poems "take my cares away."

[7] We are grateful to Gregg Gonsalves and Amy Kapczynski for the addition of "concern for their well-being," a formulation they attribute to economist Nancy Folbre. Gregg Gonsalves and Amy Kapczynski, "The Social Life of Care," *Dædalus* 154 (1) (Winter 2025): 224–239, https://www.amacad.org/daedalus/social-life-care.

[8] See Maisha T. Winn and Nim Tottenham, "Looking Back to Look Forward: Leveraging Historical Models for Future-Oriented Caregiving," *Dædalus* 154 (1) (Winter 2025): 70–81, https://www.amacad.org/daedalus/looking-back-look-forward-leveraging-historical

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[9] Elizabeth Fetterolf, Andrew Elder, Margaret Levi, and Ranak B. Trivedi, "Technology & the Dynamics of Care for Older People," *Dædalus* 154 (1) (Winter 2025): 127, https://www.amacad.org/daedalus/technology-dynamics-care-older-people.

[10] Ashley J. Thomas, Christina M. Steele, Alison Gopnik, and Rebecca R. Saxe, "How Do Infants Experience Caregiving?" *Dædalus* 154 (1) (Winter 2025): 16, https://www.amacad.org/daedalus/how-do-infants-experience-caregiving.

[11] Winn and Tottenham observe, "the protection afforded by the caregiver is bedrock upon which children feel free to take risks and explore their environments." Winn and Tottenham, "Looking Back to Look Forward," 75. With regard to eldercare, Thomas, Steele, Gopnik, and Saxe point out the ways in which carers will decide to privilege the goals of the person being cared for, even when the carer does not agree with those goals. Thomas, Steele, Gopnik, and Saxe, "How Do Infants Experience Caregiving?"

[12] Atul Gawande, *Being Mortal: Medicine and What Matters in the End* (Henry Holt, 2014), 140.

[13] Ibid., 248.

[14] Winn and Tottenham, "Looking Back to Look Forward," 74.

[15] Anne Case and Angus Deaton, *Deaths of Despair and the Future of Capitalism* (Princeton University Press, 2020); and Morgan Chalfant, "A Bipartisan Pair Aims to Solve America's Happiness Problem," Semafor, April 23, 2024, https://www.semafor.com/article/04/22/2024/a-bipartisan-pair-aims-to-solve-americas-happiness-problem. See also Gallup, "Gallup Happiness Report," https://www.gallup.com/analytics/349487/world-happiness-report.aspx (accessed May 1, 2024); and Vivek H. Murthy, *Our Epidemic of Loneliness and Isolation: The U.S. Surgeon General's Advisory on the Healing Effects of Social Connection and Community* (Office of the U.S. Surgeon General, 2023).

[16] Allison Pugh, *The Last Human Job: The Work of Connecting in a Disconnected World* (Princeton University Press, 2024).

[17] Ibid., 13. Pugh's quote comes from Roy F. Baumeister and Mark R. Leary, "The Need to Belong," in *The Handbook of Social Psychology*, ed. Daniel Todd Gilbert, Susan T. Fiske, and Gardner Lindzey (McGraw-Hill, 1995), 497–529.

[18] Abraham H. Maslow, "A Theory of Human Motivation," *Psychological Review* 50 (4) (1943): 370–396.

[19] Hilary Cottam, "Revolution 5.0: A Social Manifesto," December 10, 2019, 3, https://www.hilarycottam.com/wp-content/uploads/2019/12/Social-Revolution-5.0-_dec19.pdf. For the joint provenance of the concept, see Cottam, *A Radical New Vision of Social Care*, footnote 20.

[20] Alison Gopnik, "Caregiving in Philosophy, Biology & Political Economy," *Dædalus* 152 (1) (Winter 2023): 59, https://www.amacad.org/publication/daedalus/caregiving-philosophy-biology-political-economy.

[21] Gonsalves and Kapczynski, "The Social Life of Care," 225.

[22] Gopnik, "Caregiving in Philosophy, Biology & Political Economy," 59.

[23] Slaughter and Cottam, "We Need a New Economic Category." For a definition and discussion of connective labor, see Pugh, *The Last Human Job*.

[24] Mia Birdsong, *How We Show Up: Reclaiming Family, Friendship, and Community* (Hachette Books, 2020), 19.

[25] Gonsalves and Kapczynski, "The Social Life of Care," 225.

[26] Ibid., drawing on the work of Nancy Fraser.

[27] David Graeber, *Debt: The First 5,000 Years* (Melville House, 2011).

[28] While this essay does a deep dive on two place-based examples, there are a number in practice. See, for example, Alaska Just Transition, https://www.justtransitionak.org (accessed December 5, 2024); Reimagine Appalachia, https://reimagineappalachia.org (accessed December 5, 2024); Vermont Prosperity Project, https://www.vtprosperityproject.com (accessed December 5, 2024); and Wellbeing Economy Alliance California, https://weallcalifornia.org (accessed December 5, 2024), among others.

[29] This network consists primarily of national governments, although there is an emerging network of local hubs around the world and emerging in the United States. See Wellbeing Economy Alliance, "Wellbeing Economy Governments (WEGo)," https://weall.org/wego (accessed December 5, 2024); Wellbeing Economy Alliance, "Local Hubs," https://weall.org/hubs (accessed December 5, 2024); and Scottish Government, "Wellbeing Economy Governments (WEGo)," https://www.gov.scot/groups/wellbeing-economy-governments-wego (accessed January 15, 2024).

[30] For the Federal Plan for Equitable Long-Term Recovery and Resilience, see U.S. Department of Health and Human Services, "Equitable Long-Term Recovery and Resilience: The People & Places Thriving Approach," https://health.gov/our-work/national-health-initiatives/equitable-long-term-recovery-and-resilience (accessed January 15, 2024). The Vital Conditions for Health and Well-Being is an evolution of the social determinants of health framework that has had meaningful influence in policy circles since its emergence in the early 2000s.

[31] Elizabeth Garlow, Austin Clemens, and Tony Guidotti, "What Are We Making Policy For? A Focused Effort in Measuring Wellbeing," New America, December 6, 2022, https://www.newamerica.org/new-practice-lab/blog/what-are-we-making-policy-for.

[32] The coalition included People's Economy Lab, Front and Centered, the Statewide Poverty Action Network and State Budget and Policy Center. The quotation is from Deric Gruen, "New Economy Washington: A Path Forward," November 6, 2019, https://frontandcentered.org/new-phase-1 (accessed January 15, 2024).

[33] See Climate Justice Alliance, "Just Transition Framework," https://climatejusticealliance.org/just-transition (accessed January 15, 2024).

[34] Just Futures, "Cornerstones of Collaborative Governance for a Just & Equitable Future," (Front and Centered, People's Economy Lab, and Statewide Poverty Action Network, 2023), 14, https://mcusercontent.com/48c2ade4b36927ca8b5eef71d/files/52a0fb52-d8d5-18cb-62b9-b4e4477675f1/Just_Futures_Co_Governance_Framework_final_version.pdf.

[35] Ibid., 11.

[36] *'Āina* refers to "care for the land" and *Aloha* refers to "love, peace, compassion and mutual respect"; these are references to Native Hawaiian culture and values as guiding stars for reimagining Hawai'i's social and economic fabric. 'Āina Aloha Economic Futures, https://www.ainaalohafutures.com (accessed January 15, 2024).

[37] This group included Amy Kalili, Davis Price, Ikaika Hussey, Joseph Lapilio, Kalani Ka‘anā‘anā, Kamana Beamer, Kēhaunani Abad, Keoni Lee, Lanakila Mangauil, Mahina Paishon-Duarte, Nā‘ālehu Anthony, Noe Noe Wong-Wilson, Ryan Gonzalez, and Ulalia Woodside.

[38] Quoting Dr. Kamana Beamer, "‘Āina Aloha Economic Futures: A Vision for Hawai‘i's Economy Grounded in ‘Ike Kūpuna," *Ka Wai Ola*, January 1, 2021, https://kawaiola.news/hookahuawaiwai/ina-aloha-economic-futures-a-vision-for-hawaiis-economy-grounded-in-ike-kpuna.

[39] For the playbook, see ‘Āina Aloha Economic Futures Policy Playbook, "Growing a Stronger Hawai‘i," https://docs.google.com/document/d/1GJdVPM84fA0x9UBGpii0UjBgvEiV4INr2ES5FXmRpjk/edit (accessed January 15, 2024). For the self-assessment tool, see ‘Āina Aloha Economic Futures, "Assessment Tool for Policies, Projects and Programs," https://docs.google.com/spreadsheets/d/1ibnzR_ytvHVBTXnTcTjA2u7NbnYD74FczXu2WY_7bEI/edit#gid=0 (accessed January 15, 2024).

[40] ‘Āina Aloha Economic Futures, "Assessment Tool for Policies, Projects and Programs," 7.

[41] ‘Āina Aloha Economic Futures, "‘Āina Aloha Economic Futures Declaration," https://www.ainaalohafutures.com/declaration (accessed January 15, 2024).

[42] Fetterolf, Elder, Levi, and Trivedi, "Technology & the Dynamics of Care for Older People," 120.

[43] U.S. Department of Health and Human Services, "U.S. Surgeon General Issues Advisory on the Mental Health and Well-Being of Parents," August 28, 2024, https://www.hhs.gov/about/news/2024/08/28/us-surgeon-general-issues-advisory-mental-health-well-being-parents.html.

[44] Ian Corbin and Joe Waters, "What the Surgeon General Missed about America's Loneliness Epidemic," *Newsweek*, May 16, 2023.

[45] Margaret Levi has critiqued the idea's pairing of selfish motivation and rational action, which have given rise to a cornucopia of theories and models that no longer prove useful. Instead, she has advocated for an acknowledgment of the ways human beings are "enmeshed in social connections that inform their thinking and actions." Margaret Levi, "2014: What Scientific Idea is Ready for Retirement?" Edge, https://www.edge.org/response-detail/25297 (accessed January 15, 2024).

[46] These processes intersect in interesting ways with Wendy Bowles and Samuel S. Carlin's argument that care is fundamental to reshaping democratic participation through strengthening social bonds, moving us out of a harmful market-state simplex, which entrenches us further in market fundamentalism and the state as an extension of the market. Samuel S. Carlin and Wendy Bowles, "Foundations of an Expanded Community of Fate," *Dædalus* 152 (1) (Winter 2023): 39.

[47] Adrian Pabst and Roberto Scazzieri, *The Constitution of Political Economy: Polity, Society and the Commonweal* (Cambridge University Press, 2023), 148.

[48] Ai-Jen Poo with Ariane Conrad, *The Age of Dignity: Preparing for the Elder Boom in a Changing America* (The New Press, 2015), 40.

[49] New America's New Practice Lab found in qualitative interviews with low-income families with young children that there is a notable "desire to help other community members, family, and even casual acquaintances," whether it's with childcare or various needs, which is often coupled with feeling overtaxed because of a lack of sufficient time

and resources. Sarah Gilliland, Erica Meade, and Jessica Weeden, "Family Thriving: How Social Connection Can Promote Greater Connection," https://www.newamerica.org/new-practice-lab/briefs/family-thriving-how-social-policy-can-promote-greater-connection (accessed April 30, 2024).

[50] Gopnik, "Caregiving in Philosophy, Biology & Political Economy," 66.

[51] Jenna Bednar argues that this kind of collaboration depends on trust, which in turn depends on feeling cared for. Jenna Bednar, "Governance for Human Social Flourishing," *Dædalus* 152 (1) (Winter 2023): 40–56, https://www.amacad.org/publication/daedalus/governance-human-social-flourishing.

[52] U.S. Federal Register, "Methods and Leading Practices for Advancing Public Participation and Community Engagement with the Federal Government," https://www.federalregister.gov/documents/2024/03/20/2024-05882/methods-and-leading-practices-for-advancing-public-participation-and-community-engagement-with-the (accessed May 1, 2024).

[53] For example, funding provided through the American Rescue Plan Act, the Economic Development Administration's Build Back Better Regional Challenge, and emergency rental assistance.

[54] For instance, the Economic Development Administration launched the Recompete Pilot Program to provide funding in distressed communities. The program has been designed based on learnings from the Build Back Better Regional Challenge grants, incorporating feedback from former grantees, such as removing the requirement for matching funds. U.S. Department of Commerce, "Recompete Pilot Program," https://www.eda.gov/careers/recompete-pilot-program (accessed April 30, 2024).

[55] Gonsalves and Kapczynski, "The Social Life of Care," 234.

[56] Christopher Nelson, Anita Chandra, and Carolyn Miller, "Can Measures Change the World?" *Stanford Social Innovation Review* 16 (2018): 43–47.

[57] Office of Disease Prevention and Health Promotion, *Federal Plan for Equitable Long-Term Recovery and Resilience for Social, Behavioral, and Community Health* (U.S. Department of Health and Human Services, 2022), 41, https://health.gov/sites/default/files/2022-04/ELTRR-Report_220127a_ColorCorrected_2.pdf.

[58] For information about the housing loss rate, see Yuliya Panfil, "America Needs a National Housing Loss Rate," Federation of American Scientists, February 22, 2024, https://fas.org/publication/america-needs-a-national-housing-loss-rate. Indicators around the health of civil society and community cohesion, such as the Social Capital Atlas from Raj Chetty and colleagues and the Mapping the Modern Agora Project by Hahrie Han, Milan de Vries, and Jae Yeon Kim are a step in the right direction but still only represent part of the picture. See Raj Chetty, Matthew O. Jackson, Theresa Kuchler, et al., "Social Capital and Economic Mobility," *Nature* 608 (7921) (2022): 108–121; Opportunity Insights Social Capital Atlas, https://socialcapital.org (accessed April 30, 2024); Milan de Vries, Jae Yeon Kim, and Hahrie Han, "The Unequal Landscape of Civic Opportunity in America," *Nature Human Behavior* 8 (2024): 256–263; and Hahrie Han, Milan de Vries, and Jae Yeon Kim, "Mapping the Modern Agora," Johns Hopkins SNF Agora Institute, https://snfagora.jhu.edu/project/mapping-the-modern-agora (accessed April 30, 2024).

[59] ʻĀina Aloha Economic Futures Policy Playbook, "Growing a Stronger Hawaiʻi."

The Social Life of Care

Gregg Gonsalves & Amy Kapczynski

While much recent writing about care casts it as an intimate and familial activity and commitment, there is a competing tradition that recognizes care as a social activity and commitment. This social concept of care is more suited to building a politics of care in a democracy, where we are committed to the equality of others. Care in its social articulation also requires public infrastructures and commitments to bring it into reality, and conflicts with the extractive imperatives of the market in our neoliberal economy. The history of public health, and insights drawn from social reproduction theory, can help us articulate the need for a new politics of care and identify the many challenges that stand in its way. Concerted social mobilization and a new social science of care will be needed if we are to address the universal need today for not only intimate but also social care.

What kind of politics might we build in the wake of neoliberalism? Inspired in part by our own work with AIDS activists, and witnessing others in parallel – from activists demanding "care not cops" to ones urging a just energy transition and rights for the disabled – we have suggested that care might provide an alternative center for our politics.[1] We believe such a politics could offer a vision capable of describing what might come after the neoliberal order because it links together a systematic critique of our current political economy with a vision of what values and institutions are worth struggling for together – ones that would allow us all to live longer and better, that would generate more freedom in how we spend our time, and that would give more meaning to our lives and our democracies.

But what is "care," and how might it help us redefine what our politics and political economy are for? And what might this have to do with the wreckage that neoliberalism has wrought? To understand this, we need to reach beyond the conception of care as fundamentally *intimate,* and instead recognize and value care as a *social* activity and commitment. Today, our embodied lives are unthinkable, unlivable without shared infrastructures of care that rely heavily on not just intimates but also the care work of strangers. We tend to overlook these infrastructures, both in our politics and in conversations about social reproduction and care – though they are essential to our lives and are systematically exploited and extracted in an economy organized by profit-seeking. We have not only weak care infrastructures in the Unit-

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ed States today but fundamentally unequal and unjust ones that extract care from some to provide it preferentially to others. If we are to reorient our politics and economy toward equality and freedom for all, it will require a focus on care in its social sense – and massive social mobilization as well as concerted efforts by academics to reorient what we measure, debate, and value in our own work.

The word *care* has Old English roots. It comes from *caru*, which first meant sorrow or grief, and then came to mean concern and provision. Nothing in the word suggests that care should be limited to the family. Yet many conversations about care begin with the family and treat relationships between parents and children as the ur-type. This conception of care emphasizes *care as intimate*, a kind of activity and commitment that happens between *particular* persons, commonly within the family. Care theorist Virginia Held adopts this view when she argues that the "central focus of the ethics of care is on the compelling moral salience of attending to and meeting the needs of the particular others for whom we take responsibility," such as "caring for one's child."[2] Alison Gopnik also understands care as an intimate commitment and activity. For Gopnik, care "typically emerges in the context of close personal relationships," and is "evolutionarily rooted in biological kinship relationships," even if "not restricted to those relationships."[3] For Anne-Marie Slaughter, care is a "relationship," or "a sustained connection between two people; a caring relationship is a loving, affectionate, or at least respectful and considerate connection."[4]

This concept of care-as-intimate draws on work in psychology, biology, and theories developed by difference feminists to argue that people can willingly subordinate their needs to others. A politics of care based on this conception asks that social institutions protect and promote these kinds of relationships, including beyond the nuclear family. Gopnik, for example, wants public policy to enable more opportunities for intimate care by expanding the contours of marriage or providing other kinds of legal recognition of caring relationships, such as allowing siblings the formal recognition of a care relationship.

There is another concept of care that treats care as a *social* activity and commitment. Care in this context is defined as the life-sustaining activities and infrastructures that enable all other things we do. This tradition of care is associated with political theorists Joan Tronto and Bernice Fisher, who define care as "everything we do to maintain, contain, and repair our 'world' so that we can live in it as well as possible."[5] Care, understood in this way, focuses on what materialist feminists call activities of "social reproduction." These are the "activities of provisioning, caregiving and interaction that produce and maintain social bonds," and sustain people "as embodied natural beings, while also constituting them as social beings."[6]

Care understood this way is found among intimates, but also in public among strangers. This is the "care" that corresponds to health care, childcare, and home care. In this social conception, care is a kind of undervalued work that people do – often women, immigrants, and people of color – that becomes embodied in material infrastructures that help organize and ensure the provision of care to others, even others whom we may never know.

The social conception of care implies affective commitment too – the "concern" and "worry" you find in the etymology of the word – but does not conflate care with the feeling of love or commitment we expect characterizes a relationship with a child or parent. Health care, day care, and home care should not be expected to provide this kind of intimate love. But good care in these settings requires affect we commonly call care: close attention to particular persons and commitment to their well-being.

Infrastructures of care can also only be sustained if we feel social concern for others we will never meet. In this way, social care depends profoundly on commitment and feeling, though of a different kind than intimate care. That we were ever able to build a politics that established care infrastructures, threadbare though they may be today, is a monumental collective achievement. It reflects the fact that humans are what biologists call an "ultra-social species," not just capable of but inclined to care beyond kin.[7] New insights in evolutionary biology show theoretically and empirically how the social and the individual are intertwined.[8] Even slime molds cooperate, it turns out. Humans are just better at it, and can build complex social infrastructures to sustain one another – or destroy one another – at a massive scale.[9]

The social tradition for theorizing care asks us to think about care not as something any one of us is capable of providing alone, but as something that we must provide together, through social choices and commitments that can be costly. This vision of care connects to a broader critique of political economy and the widespread sense of crisis that surrounds us. The rise of capitalism, and its current neoliberal form, involved valorizing a certain kind of market relation and actor. As the Care Collective writes, "the archetypal neoliberal subject is the entrepreneurial individual whose only relationship to other people is competitive self-enhancement. And the dominant model of social organisation that has emerged is one of competition rather than co-operation. Neoliberalism, in other words, has neither an effective practice of, nor a vocabulary for, care."[10]

What is distinctive about care here is the *role* it plays in our social and material lives. Care is what allows us to live longer and better, and what must be distributed equally to all if we are to live in a just society. Care in its social form thus can be understood as a predicate of real freedom, as philosopher Martin Hägglund describes:

> To live a free life, it is not enough that we have the *right* to freedom. We must have access to the material resources as well as the forms of education that allow us to pursue our freedom and to "own" the question of what to do with our time. What belongs to

> each one of us – what is irreducibly our own – is not property or goods but the time of our lives.[11]

Neoliberalism oriented our politics toward the maximization of profit and wealth. Hägglund urges us to redefine wealth, to recognize that "the more free time we have to pursue the activities that matter to us, the wealthier we are."[12] In this vision that centers care, "own[ing] the question of what to do with our time" requires both time and the ability to decide to use that time for what is meaningful to us – as well as the acknowledgment of the dependences we have upon others.[13] This dependence is not just between intimates, but between all of us as social beings who all deserve the regard and material supports that might enable us to live freely. We need infrastructures of care and a commitment to equal care for all, so that each of us might be "freed up" to live our lives as well and as meaningfully as we can.

Care in its social sense is central to secular freedom, enabling us to live our lives with meaning. It has a politics because it is something we can alter, demand from others, and build collectively. Though we take it for granted, it was bold action from groups of activists and scholars that established the social care infrastructures we have today. Aspects of these infrastructures remain and are foundational to social reproduction, but they were also built in ways deeply marked by our political economy: they were exceptions to laissez-faire, acceptable to the extent that they protected our political economy, but foreshortened by social relations of subordination that persisted. Seeing what helped us build these infrastructures – and what limited their reach, what picked away at them until they became just bones in so many places – is important to understanding what it might take to reorient our political economy toward social care today.

Mainstream economists often describe a broad association between the rise of industrial capitalism and rising life expectancy and population growth.[14] In fact, what followed most immediately from the advent of industrial capitalism was a tidal wave of sickness and death.[15] The emergence of waged labor in urban centers both created conditions for major new outbreaks of illness and tracked shifting social relations that tolerated astronomical levels of injury, hunger, and malnutrition for workers and poor families. Many at the time, particularly the pioneers of what we today call social medicine, recognized this phenomenon contemporaneously. We only now associate capitalism with longer life for more people because of the work of early scientists and reformers, who not only helped identify the biological causes of disease, but also saw that disease had structural and social causes – and then devised institutions and scholarly practices to support infrastructures of care that could protect people. What was built in this period is in one sense astonishing, but it also never managed to displace the profit logic that defined what the modern political economy is for; and as a result, these infrastructures were partial, delimited, and undermined as soon as they began.

This dialectic is foundational to an understanding of how even as great advances were made in the nineteenth century, our profit-oriented political economy has curtailed and eroded them, especially as it was intensified in the neoliberal era. Programs and policies found support particularly in times of social and economic crises, during which they were necessary to the stability of capitalism. But they were organized in ways that did not fundamentally challenge the broader political economy, with its emphasis on the primacy of profit-seeking, and the fear of dependency. Periods of expansion were followed by the clawing back of resources and the extraction of profits from these same systems once the political pressure had subsided. But the insights of reformers in the nineteenth century have salience today as we think about how a care economy and a new politics of care might be possible.

Before the nineteenth century, diseases were commonly thought of as the result of personal failings. Illness was interpreted as a sign of god's wrath, or constitutional weaknesses of certain social groups.[16] Nonspecific environmental causes ("unpleasant odors," "poisonous vapors," miasmas blamed for cholera, bad air for malaria) were also popular theories.[17] The late nineteenth century saw the gradual emergence of germ theory linking microorganisms to disease, culminating in microbiologist Robert Koch's articulation in 1884 of his four postulates for establishing causation between the two.[18] However, a contemporaneous set of theories was on the rise as well. Rudolf Virchow, Edwin Chadwick, Florence Nightingale, and Friedrich Engels were among those who showed that social forces influence individual health in patterned ways. As they pointed out, the conditions in which we live and work can make us sick, and the lives and the deaths of the rich and the poor have starkly different trajectories.[19] They also understood that the social conditions driving ill health were remediable, that our environments could be remade to ward off sickness. This understanding gave birth to modern public health, which helped to drive the need for large-scale investments in public infrastructure development, particularly in sanitation, water, housing, and the workplace. But the story of the birth of modern public health is also the story of how new forms of social organization rose to elevate care for others and changed the way we live together. It is part of the genesis of a politics of care.

Cholera first appeared in the Western world in 1831 before germ theory was widely understood or established. At the time, miasmas were believed to be the cause of this new disease, though early advocates, scientists, and physicians began to link cholera with poor living conditions.[20] In the most severe cholera epidemic in the 1850s in Europe, the etiology of the disease was established with greater certainty. Everyone trained in public health knows the formative story of John Snow and the Broad Street pump.[21] Considered the first modern epidemiologist, Snow and a local Anglican minister, Reverend Henry Whitehead, showed through what would be an early example of a difference-in-differences (that is, a controlled before and after) study that the contaminated water from the local well was responsible for the 1854 outbreak, not miasmas or the anger of a god. What happened next was critical: Snow and Whitehead went to the St. James Vestry, the local administrative authority, to present their case and get the Broad Street pump handle removed. The victory was largely symbolic. The outbreak had already waned, and it would take several decades for Snow and Whitehead's theory on cholera to take hold. But it was the beginning of a revolutionary movement blending scientific insights with public action, leading to the so-called Great Sanitary Awakening of the nineteenth century that generated reforms in water and sanitation, housing, and urban design.[22] Here care becomes municipal and civic, and the benefits of these reforms become part of the city, shared in common citizenship.

But what controlled cholera in the Western world was not simply Snow's work to prove the disease was caused by a pathogen.[23] It was also the emergence of water provision as a public utility rather than a private good, which shifted care for others into a tangible infrastructure and into the built environment, democratizing access to clean water for the first time. In fact, in the United States, water provision became the first public utility, though the transfer from private hands happened over time from city to city. Philadelphia established a public water supply after an 1801 yellow fever outbreak raised suspicions of a connection between the disease and the "putrid matter" in drinking water for the municipality.[24] New York City didn't begin planning for public water provision until a severe cholera outbreak there in the 1830s.[25] In law, public utility regulation became a vast and critically important exception to the then-reigning idea that lawmakers could not "interfere" with the economy – the so-called ideology of laissez-faire that re-emerged in new form in the neoliberal era.

There is an intimate link in this history between material infrastructures of care and intellectual fights over the nature of freedom and the economy. Public utilities from water to electricity to transportation, and key health regulators like the Food and Drug Administration, were established in a period that heralded – even constitutionalized – "market freedom."[26] They were only possible through pitched battle between advocates, public health professionals, and private investors, which delimited market logics in the name of "the salus populi – the ability of a modernizing state to continue to provide for a democratic people's welfare."[27] While courts repeatedly struck down some efforts to shape markets, such as minimum wages and maximum working hours, they also carved out exceptions for a growing range of industries "affected by the public interest" that could be legitimately publicly regulated.[28] In fact, scholars and advocates at the time conceptualized the fight as one over the nature of the economy, arguing for a "democracy of wealth," wherein "all industrial relations are to be regarded as subordinate to human relations."[29]

These developments, while opposed by business interests, were crucial to the emergence of a national and global economy based on commodity exchange and waged labor, as they made cities, products, and waged work survivable. They appeared during times of crisis – such as the revolutions of the nineteenth century, the Great Depression, and the social unrest of the 1960s in the United States – responding to organized agitation and evolving to address these challenges, yet always operating within limits. While improvements in water and sanitation, housing, food and nutrition, and education – all the things we would call the social determinants of health – increased life expectancy and blunted disease in many places, not everyone benefited equally. The poor and nonwhite populations in the United States still suffered disproportionately what social critic Lauren Berlant characterized as a slow death: "even if individuals managed to survive numerous infectious diseases, the typical details of everyday life led inexorably to early death: the hours and conditions of work, numerous pregnancies, chronic undernutrition, domestic labor, stress, and, for many, discrimination combined to wear down over the years a body's ability to function."[30]

As the modern political economy expanded both nationally and globally, care became commodified, driven by market forces and shaped by profit motives. The market itself was structured by ideas of productivity, efficiency, and entitlement, which meant that even as care work would more frequently be paid – for example, in new growth sectors like childcare, health care, and home care – care would still be undervalued and coerced.

For instance, as waged labor emerged, we began to see the rise of classes of waged care laborers, from the domestic workers that powered households in the nineteenth century, to the category of "home care" that was born in the New Deal and that is among the fastest growing job sectors today.[31] But waged care work is subordinated and poorly compensated, even as it becomes part of a formal market.

It is well known that the paid care sector today is underpaid and underappreciated, but the reasons are less well understood. Feminist economists like Nancy Folbre provide one kind of explanation. Care work, whether paid or unpaid, "often involves more personal connection, emotional attachment, and moral commitment than other forms of work," and provides value that is hard to measure. In settings that are driven by profit and market efficiency, paid care work will be consistently undercompensated because employers fail to "see" and reward the value of good care, and because care workers' emotional investment in their work or those in their care makes them less likely to quit or strike, effectively weakening care workers' power to negotiate for better pay.[32]

Sociologists and historians describe other structural conditions that have made care work not just a realm of economic exploitation, but also of racialized and gendered coercion. Sociologist Evelyn Nakano Glenn's book *Forced to Care* describes a history of care coercion in the United States that goes back to the founding of the country, in which care is provided to some by others who are denied the same care themselves. "The social organization of care" in the United States, as she describes, "has been rooted in diverse forms of coercion that have induced women to assume responsibility for caring for family members and that have tracked poor, racial minority, and immigrant women into positions entailing caring for others."[33] Slavery was such a system, and Nakano Glenn identifies others that are more contemporary and subtle. For example, home care workers have long been excluded from labor and employment protections available to other workers, including the ability to unionize and earn overtime pay.[34] Historians Eileen Boris and Jennifer Klein have traced this long history of subordination, and shown that it is very much still with us.[35]

The care infrastructures built in the nineteenth century bear these same traces of extraction and marginalization, reproducing more of the same for the same subordinated groups. While sewage and public utilities are often seen as universal infrastructure, these public goods have never been enjoyed equally in America. Modern public health recognizes that the infrastructures necessary for good health go far beyond this, encompassing housing and decent work while also addressing systematic group subordination and inequalities. Yet these systems have never been available to all.

Public infrastructures of care are not, in theory, allocated or organized according to a logic of profit, so they remain vulnerable in a political economy that prioritizes financial gain. One feature of the neoliberal turn, in fact, is that infrastructures organized for care became more aligned with profit motives, which ultimately undermines them. Dynamics of financialization and austerity have tended to push institutions, including those providing care services, to prioritize market-measured efficiency, with effects we are just beginning to understand. For example, new empirical work shows that while hedge-fund takeovers of nursing homes were heralded as a way to increase the quality and efficiency of services, they have actually made them markedly more deadly.[36] Consolidation in the for-profit dialysis sector has had similar effects.[37] Health care settings today have become places where sickness is turned into profit – in which infrastructures of care are crafted to drive revenue for others in a form of "care extractivism."[38] Even though access to health care was expanded in recent decades in the United States, we are still far from having infrastructures that ensure equal access to the kind of freedom envisioned by Hägglund. We see significant disparities in the time we have on this earth, with people in the same city experiencing a difference of ten to twenty years in healthy life expectancy.[39] The public health literature on the social determinants of health shows how social subordination shapes health, highlighting both persistent inequities and those that have worsened in recent decades.

For example, "unequal access to technological innovations, increased geographical segregation by income, reduced economic mobility, mass incarceration, and increased exposure to the costs of medical care," in a set of feedback loops, can lock the poor into a "health-poverty trap."[40] As writers like Matthew Desmond have noted, poverty traps are made by design by public policies that subsidize care for some, direct resource and financial flows to others – not just to the rich but to the middle class – and leave millions of the poor behind.[41] It's not that we can't afford to address poverty in the United States, Desmond maintains, but we simply have created an economic and social architecture that incentivizes the status quo.

This kind of extraction is felt corporeally; it seeps into who we are. As social epidemiologist Nancy Krieger describes, "we literally biologically embody exposures arising from our societal and ecological context, thereby producing population rates and distributions of health."[42] The pathways that connect health to social and ecological factors are complex. Racism, for example, influences geography, which in turn can expose people to higher rates of violence or diminish access to good schools or walkable neighborhoods. It also influences individual micro-exposure to disease (because, for example, it impacts access to safe workplaces and homes) as well as groups' macro-abilities to organize to address health inequities.[43] Biology, of course, also influences disease: only people with prostates get prostate cancer. But the incidence and impact of diseases like this are profoundly shaped by socioeconomic status and race.[44]

The effects of racism on health also play out through public infrastructures and the politics around them. As historian George Aumoithe has shown, the fiscal crisis of the 1970s and the elevation of efficiency in the neoliberal era created an incentive for the rise of "Ghetto medicine," in which health care and public health infrastructure were stripped from Black and Brown communities in cities like New York.[45] This dismantling of public infrastructure over the past fifty years collided with the HIV and COVID-19 pandemics. In the 1980s, the city struggled with hospital capacity, and today it remains unable and unprepared to handle a surge in illness and death among the poor.[46] As sociologist Armando Lara-Millán has described, dynamics of disinvestment and reinvestment of health care dollars work to "redistribute the poor," shuttling them between different institutions – jails, prisons, hospitals – so some agencies can cut costs and others can accrue revenue, while maintaining an illusion that through services, care is being provided.[47] The broad social infrastructures of care that took generations to build were dismantled, with resources redirected to more lucrative care "opportunities" (such as large academic medical centers providing high-cost specialty care). Meanwhile, what was left behind in disadvantaged communities was designed to continue extracting profit at the expense of the poor.

And water and sanitation? The feel-good story of the Broad Street pump, the victory of the establishment of public water and sanitation utilities nationwide at the turn of the last century: all feel hollow when we think of the collapse of these systems in places like Flint, Michigan, and Jackson, Mississippi. In fact, half a million Americans live in households without plumbing, with hundreds of water systems in the United States operating in violation of the Safe Drinking Water Act.[48] This is a story of privatization and neglect, but also of the hollowing out of the state and public services in the name of fiscal prudence and restraint over the past forty years. From the closure of hospitals to the decay of water and sanitation services and the weakening of social protections, this systematic disinvestment in the health and welfare for America's poor, many of them people of color, is part of that legacy of advances cut short, curtailed, reversed.

Building, rebuilding, and reforming infrastructures of care should consider how these systems have been used and misused to perpetuate race and class subordination in America. And we have to learn the political lessons too – our progress in establishing infrastructures of care is fragile. Care only becomes a priority for those in power and with resources when it becomes impossible to ignore because of protests or unrest.

Can care, in its social conception, provide an alternative ethos and analytics to reorganize political economy today, and help us articulate a new politics that moves beyond the neoliberal paradigm that has governed over the last several decades? The answer will depend on the emergence and consolidation of social movements powerful enough to demand profound change – change that not only builds better infrastructures of care, but also undermines structures of social subordination and empowers low-income workers and carers within and outside the marketplace. Academics alone cannot bring about this change, but they can develop theories and conceptual innovations as well as gather data and evidence that can help us understand the present and shape the future.

Profit-oriented institutions took centuries, not decades, to develop. They needed intellectual theorization, legal and institutional innovation, and social scientific elaboration. Neoclassical economics required new theories of value – transitioning from utilitarianism toward concepts such as "Pareto-optimality" and the "Kaldor Hicks" or "wealth maximization" criterion commonly used in institutional analysis today – and along the way, they normalized the idea that it is moral for goods to be allocated to those who can pay the most.[49] Economists also developed "linking theories" that connected these philosophical concepts to both mathematics and law, claiming, for example, that the "measuring rod of money" could be used reliably to evaluate the welfare benefits of different regimes, thereby facilitating and institutionalizing logics of exchange and profit-maximization.[50] Significant legal innovations were also necessary, such as the development of the "fee simple" concept in property ownership. These changes transformed the corporation from a special and limited expression of state power into a form of private authority that could exist indefinitely and be driven by market pressures rather than public objectives.[51] New accounting and managerial techniques were essential for defining "profits" and evaluating how specific institutional and social arrangements could enable their growth.

A political economy and politics oriented to care would require its own theory of value, such as those beginning to be developed by theorists like Tronto and Hägglund. It will also require legal and institutional innovations that can concretize these values and embed them in institutional cultures. We need new policy prescriptions, to be sure – for example, to identify how to organize and secure universal or decommodified childcare, health care, home care, and social housing. But we likely also need other kinds of innovations, comparable to those made in property and corporate forms as capitalism advanced. Can we develop new legal institutions that protect organized "countervailing power" for tenants and others, building on the example of labor unions?[52] Can we identify "non-reformist reforms" that empower opponents of the carceral state to both challenge the carceral state and create care-oriented alternatives to it?[53] Theorists in and out of the academy are debating and developing ideas such as these.

Finally, the social sciences, broadly conceived to include public health science, have a major role as well. Social epidemiology already considers the larger social forces that we know shape health, influence our ability to minimize "disease or infirmity," and maximize overall "physical, mental and social well-being," a notion that comes close to Tronto's formulation of care as repairing our world so we can live in it as well as possible.[54] Despite this, for over a century, public health has largely subordinated itself to medicine, diverging from the tradition of its early pioneers. It sees itself now as part of "a technocratic exercise where state agents take steps to control disease."[55] Yet new movements are happening within public health that have begun to shift beyond a technocratic and utilitarian version of public health to scrutinize how policies, programs, and economic and welfare regimes can affect our ability to care, to be healthy in the broadest sense.[56] A new field of "political epidemiology" is emerging to help us trace how specific decisions influence health outcomes by treating policies and programs like we treat pathogens and medicines: that is, as exposures with effects we can measure. A new and explicit focus on care is emerging too, with public health academics advocating for the field to expand its study of the determinants of care, including

> wages, working conditions, housing affordability and accessibility, food security, transportation, education, childcare, environmental protections, and protections for immigrants, in addition to health and health care . . . [and] recognize that we all deserve to live in a decent and just society that cares about us, cares for us through its priorities and investments, and supports our ability to care for each other.[57]

Re-envisioning public health science in service to this kind of ethics means developing an evaluative framework built on quantitative and qualitative analyses that can measure whether these care imperatives are being met, how they are being degraded and undermined, and how they can be realized more fully across the spectrum of subjects listed above. This will require a shift in thinking beyond social epidemiology into the other, varied subdisciplines of public health science to address "local contextual factors but also to less tangible, high-level social ones" (for example, the roles of economic inequity and racial capitalism) at work in their impacts on health and on care.[58] Many scientists may resist addressing questions of justice in the context of their work, viewing them as "too political." But even in more abstract areas of epidemiology (such as mathematical modeling of disease), this resistance appears to be weakening.[59] Only by integrating the concept of care throughout public health science can we truly see how care works in the world, from child and elder care to care for our communities and our planet. The tools we use will be diverse depending on the subject. The metrics will also differ. But the broad notion of care that Tronto, Hägglund, and other theorists point us to requires this kind of comprehensive approach.

As this essay goes to press, a dark new chapter in the struggle over social care has opened up. The U.S. presidential election channeled a furious kind of reaction formation to the crisis of care, with Donald Trump and Robert F. Kennedy Jr. riding a wave of anger so many feel in response to a government that is unable or unwilling to do anything about how sick and precarious they feel. But what kinds of solutions do they have to offer? Not infrastructures of care, but a fantasy-fueled program of retribution. Instead of health care or housing, the incoming administration promises deportations.

If there is any nascent vision of the new Trump era arising at this moment, it is that we can Make America Healthy Again, whole again, through a mix of punishment for others and punishing self-improvement for the self – linking men like Kennedy, who would bring down public health in America, and alleged assassin Luigi Mangione, who in a spectacle of violence, took aim at our failing health care system, with both of them deeply fixated on the purity of their own bodies through diet and exercise. It is an era of techno-optimism where "great" men, like tech billionaires Marc Andreessen and Elon Musk, will drag us toward salvation in a "technocapital Singularity" – or retreat to their bunkers when it all explodes.[60] None of this makes much sense or has any ideological coherence. Those proposed to lead agencies in the new year have little understanding of how government works, and with their multiple conflicting agendas, chaos is more likely than anything else. We can already predict who will pay the highest price. As usual, the most vulnerable, most in need of care in our world will suffer the most: the homeless, the sick and hungry, and the immigrants and refugees who cannot go home because their homes have been laid to waste.

In the midst of all of this, our task is to rebuild the very ideal of care in its social sense, and the supermajorities and political programs must deliver it. Our earlier care awakenings came from periods of deep darkness – the industrial revolution and devastating wars and pandemics. That is small solace today, and yet no insignificant thing, as we try to imagine the future ahead, in which something rises from the ashes better than before.

ABOUT THE AUTHORS

Gregg Gonsalves is Associate Professor of Epidemiology in the School of Public Health at Yale University, Associate (Adjunct) Professor of Law at Yale Law School, and Faculty Co-Director of the Global Health Justice Partnership. He is also the Public Health Correspondent for *The Nation*. He has published in such journals as *Lancet Global Health*, *Health Affairs*, and *JAMA Network Open*.

Amy Kapczynski is Professor of Law, Faculty Co-Director of the Law and Political Economy Project, Cofounder of the Law and Political Economy blog, and Faculty Co-Director of the Global Health Justice Partnership at Yale Law School. She is the editor of *Rethinking Law* (2022) and *Access to Knowledge in the Age of Intellectual Property* (with Gaëlle Krikorian, 2010). She has published in such journals as *The Yale Law Journal*, *The California Law Review*, *Health Affairs*, and *Science*.

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Expanding the Community of Fate by Expanding the Community of Care

Margaret Levi

All of us need or give care – or both – over the course of our lives. Thus, care is a widely shared interest that can become the basis of an expanded and inclusive community of fate in which people take responsibility for those in need, even if they are strangers or unlikely to be able to reciprocate. This essay explores this claim and some of the conditions for creating such an expanded and inclusive community of fate.

Most of us share an interest in care – for children, the frail elderly, the sick, the mentally or physically challenged. This is particularly true if they are our relatives or friends, but many of us also feel obligations toward others in our society in need of care. Alloparenting, that is, the care of non-kin children, has its roots in prehistory but persists to this day.[1] A reevaluation of the role of both kin and non-kin in the provision of care across the life course is emerging with changes in demography, fertility, and mortality.[2] We may disagree intensely on who is deserving of attention personally or societally, and we may diverge on how best to provide and pay for that care.[3] Nonetheless, caring for and about others is a concern nearly all of us share. Certainly, one of the most important relationships we have as individuals and as members of society is that of caring, whether we are taken care of by others or we take care of others.

Can care and caregiving serve as the basis for the creation of the kind of democratic public that philosopher John Dewey envisioned? "Wherever there is conjoint activity whose consequences are appreciated as a good by all singular persons who take part in it, and where the realization of the good is such as to effect an energetic desire and effort to sustain it in being just because it is a good shared by all, there is so far a community."[4] For Dewey, the means for turning a disorganized and inchoate citizenry into a democratic public requires a community that shares interests, but institutions that protect (and facilitate) voting, argument, and experiments are also important. If care and caregiving are indeed a common denominator, can they serve as the basis for solidarity and costly actions on behalf of others well outside of an individual's normal circles of interaction? Can caring become the basis of an expanded and inclusive community of fate, those with whom we perceive our desti-

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nies to be entwined? We all have some small community of fate, usually with members of our family and others we hold dear. But is it possible to develop a broader, more encompassing community of fate among those with whom we are unlikely to ever interact? If we determine that it is, we must then consider how to enable people to learn of and believe in others' needs, and we must develop means for resolving inevitable disagreements about what actions to take and when.

Community of fate is a concept derived from the old union slogan, "An injury to one is an injury to all" and elaborated by me and John Ahlquist.[5] Earlier and often important historical figures have expressed similar ideas. Martin Luther King Jr., for example, claimed, "we are caught in an inescapable network of mutuality, tied in a single garment of destiny."[6]

Ahlquist and I were able to provide a proof of the possible through investigation of certain longshore worker unions in Australia and the United States.[7] These are organizations whose primary aims are economistic: improvement of wages, hours, benefits, and working conditions. Yet their members choose to engage in costly political actions on behalf of distant others who are unlikely to reciprocate directly. They express solidarity with those who could not help the union effort; it is solidarity for prosocial ends. Their motto has become a guiding principle in the form of a commitment to prevent and to mitigate the injuries others experience.

An additional finding concerns the mechanism for deciding whom to help and how. These are unions that practice a form of participatory democracy that permits discussion of the information that inspires the action and builds loyalty, trust, and respect of difference among the participants. Such governance and decision arrangements also facilitate deliberation and agreement to extend the community of fate to strangers the union members would probably never meet and from whom they could expect little, if anything, in return for their support.

It is worth emphasizing that reciprocity in such a community of fate is not the one-to-one idea of a direct return for a gift or favor. Reciprocity here implies community responsibility. That is one reason votes or deliberation or some other collective decision-making process is essential. A subgroup of the community of fate is defining and then making an investment in others in a larger community. The expectation is not of direct reciprocal payback but a shared understanding that when subgroup members are in need, others from the larger community will step in to help. It is a sense of community responsibility and morality that motivates those not part of an affected population to march and sacrifice for the civil and human rights of peoples being denied those rights. Those fighting to save the earth from humanmade degradations are not expecting thank you notes from the earth.

There are several additional noneconomic benefits from action that can also be motivating. One is "the pleasure of agency," the feeling of efficacy derived from acting.[8] Another is the empowerment that comes with participation in a collective action or civic duty.[9]

In an article written in the emergency stages of the COVID-19 pandemic, I expressed my belief that the pandemic would produce an expanded and inclusive community of fate.[10] As with so many predictions by political scientists, I was wrong. It most certainly did not in the United States or indeed in any country in the world where politicians and other leaders chose to fuel cleavages and misinformation to their individual advantage.[11] There were a few notable national exceptions, but in too many locales, division and conflict over the nature of the threat and the safety mandates accompanied governments' efforts to protect their populations. It is worthwhile sorting out the reasons for that variation, but the aim of this essay is to figure out how to create an expanded and inclusive community of fate that should, in principle, encompass almost everyone in a particular society, perhaps even across the whole world.

One possible unifying interest is protection from the environmental and climate threat. Although the issue remains a continuing source of discord and polarization, there is also a growing movement for change. Young people have led the way, worrying about their futures, yes, but also the future of the earth and all its species. Climate change and environmental concerns could serve – perhaps are already serving – as the soil for cultivating an expanded and inclusive community of fate.

The "Social Science of Care" project headed by Alison Gopnik that formed the basis for this volume of *Dædalus* turned my attention in another direction. I'm part of this project as one of the non-psychological social scientists. And why am I part of it? One reason is that care is an important aspect of a moral political economy, a large-scale program at the Center for Advanced Study in the Behavioral Sciences at Stanford University, from which the care project evolved.[12] Equally as significant, almost all (perhaps all) of my work focuses on relationships. Some of it considers the conditions and institutional arrangements: that is, the rules of the game, under which individuals, organizations, and institutions establish their trustworthiness and on how groups of individuals develop forms of solidarity that might lead them to act in the interests of others. I am also concerned about when those relationships are reciprocated, when they are not, and when it matters or does not matter if they are.

As the care project has evolved, I have become increasingly aware of the community of fate that care and caregiving creates. We have all been babies, and all of us have parents. Many of us are parents, and some of us will grow old and frail or need health facilities. We'll require care and give care. We rely on each other, on companies that insure us, and on organizations that provide for us. As Elizabeth Garlow and Anne-Marie Slaughter explain in their essay in this volume, the assumption, indeed the finding that is the basis of these claims, is that humans are relational beings.[13] While they have individual goals, they also seek and maintain connections that stimulate them to care for and about others.[14] Indeed, as Ashley

Thomas and her coauthors note in this volume, infants come to "understand care relationships as intimate, altruistic, and asymmetric."[15] As the authors conclude, not only does this affect caregiving in early life, it also has implications for the attitudes and behaviors of the adults the infants become.

In the contemporary world, caregiving occurs over the life course, even after death, and it comes in multiple forms.[16] The carers may be family members, groups designed to provide help, religious organizations, or governments.[17] They may volunteer their services or be paid. They can be human or technological.[18] Caring often combines many of these forms, as illustrated in the essay in this volume on the frail elderly.[19] As the importance of public subsidy and services increases, it is increasingly important how we measure care and its provision, and that we figure out what it is likely to cost and how to cover those costs.[20]

It is also worth exploring how the state can be a means of expanding the community of fate and making it more inclusive. From the Deweyan perspective, a state accountable to the public enables that public to sustain itself and its members to articulate their interests effectively.[21] What does it mean to incorporate care into the role of the state? One possibility: the government has an obligation not only to safeguard its population from external threats but also to provide for their needs throughout the life course and given differential resources and capacities to secure nonstate care – be it familial, organizational (for example, religious), or market-based. Of course, this varies over time and place.[22] A more minimal strategy is that government provides background conditions by setting standards for the facilities and providers of care. Both of these approaches assume that care is limited to the servicing of needs of those the state accepts as its responsibility. Yet the word "care" also connotes an emotional attachment, the carer wants what is in the best interest of the cared-for, even if it requires some self-sacrifice on the part of the carer. Care has the additional connotation of listening to those being cared for and responding, as much as possible, to their concerns. It requires relationships between those receiving care and state actors that involve mutual trust or at least beliefs that the one who has hierarchical power has the interests at heart of the more dependent partner in the relationship. Thus, state agents are to provide care but also care about the responses and reactions of those for whom they have responsibility.

Long ago, I wrote about a kind of social contract between the government and its population when governments demand extractions such as taxes or military service.[23] The individuals affected are willing to engage in quasi-voluntary compliance, complying because they think they should but with a backdrop of coercion given that the behavior was legally mandated. Such a social contract requires promises from both sides. The population has to believe and find credible government promises that they will receive certain benefits in return for their compliance: public goods, security, and so on. Their compliance further depends on a belief that government is not only competent to provide those benefits and services but also that it keeps its promises as best it can. In addition, the people expect that the government will provide benefits according to the standards of fairness of the day. Finally, the government has to give its population confidence that it can identify and punish free riders so that those complying don't feel like suckers.

These conditions equally apply to the provision of care, in which there must be cooperation between the cared-for, carers, family members, and government. Governments also have a role in establishing the trustworthiness of those providing care, given that the cared-for are generally vulnerable due to age (young or old) and capabilities (mental or physical). Trustworthiness of government agents depends on at least two features. The first is that the agents are competent to provide the care. The second is that the cared-for and their families believe that the government and their paid caregivers have their interests at heart. For both, institutional safeguards and resources are essential for ensuring these conditions are met.

This is not to imply that paid caregivers are incapable of finding and securing the training they need. Nor does it imply that caregivers never develop an emotional attachment and commitment to the person being cared for; many do and should. But personal efforts and attachments neither can nor should be counted on. It is essential to have governmental and institutional safeguards to protect the cared-for, as well as to ensure that the carers are safe and have what they need to do their jobs. Are both the carers and cared-for free from abuse, verbal and physical? Do they have the diapers, playpens, walkers, medicine, instructions, and other tools they need?

But there is another set of conditions. There have to be ways to incorporate the voices and concerns of those to whom care services are provided, as well as their families and others implicated in their well-being. This is not to suggest directly asking small children or the extremely frail elderly or others who lack or have lost their capacity to self-advocate. But it does require recognizing that most of those needing care are embedded in their own personalized community of fate, that their destinies are entwined with those of others who are concerned about and affected by the person(s) requiring care. These can be family members, but the circle could also include friends, physicians, social workers, teachers, paid workers, or pastoral counselors.

Here it is worth attending to the approach Hilary Cottam takes in *Radical Help*.[24] Her work is grounded not on randomized controlled trials (RCTs) but on what I have come to label RWEs, or real-world experiments.[25] They are proofs of the possible. Cottam advocates recognizing the complexity of the problem and all the relevant actors, listening to what they think they want and need, and then both reconciling their objectives and coordinating their actions. Sometimes this involves simply listening but sometimes it also requires providing options for opportunities that had not previously been considered. This may mean new services or coordination and a reduction of redundancies among those already offering help.

The role of the state in generating an expanded and inclusive community of fate around care and caregiving goes beyond regulation and consultation of the affected. It implies active engagement in creating and enabling the interconnections and awareness of others on which a community of fate depends; it involves helping to produce that community and/or taking advantage of preexisting communities. Governments across the globe have helped construct neighborhoods that are intergenerational and diverse in ways that facilitate caring in all stages of life and with the added advantage of multiple cultural resources.[26] All communities are networks of individuals who are somehow related to each other through one node or another, but they could also be virtual communities.[27] Digital tools allow connections among a much wider array of people across a country and even nations, but the trick is to find a means to create a collective identity (for example, a neighborhood or a common cause) that is the basis for mobilization and contributes to societal welfare.

The form and quality of social cohesion can reinforce existing attitudes and values or transform them. An emphasis on personal attainment or on exclusivity tends to exacerbate the divergence between the interests of the individual and society as a whole. Free riding, violation of norms governing common pool resources, and other self-serving acts dominate over actions that uphold a common good. When citizens find their comfortable social identities and ways of life under challenge, they may well retreat to the comfort of insular and exclusionary communities of fate. Particularly affected are those who remain rooted in their traditional homeland and whose reliance is on family, neighbors, and church rather than on government or the corporation, the worlds political scientist Elinor Ostrom, sociologist Arlie Hochschild, and political scientist Katherine Cramer portray.[28]

Individuals in relatively narrow communities of fate can become increasingly alienated from the society at large, especially as their livelihoods and homes become less secure due to the kinds of demographic, climatic, economic, and technological pressures felt today. Digital tools and social media can and often do contribute to alienation and polarization. But they can also be – under the right conditions – the means for expanding a positive, productive, and progressive community of fate. We know something about those conditions in traditional and historical spaces of work, neighborhood, and politics. We are just beginning to learn what works in the new spaces created by the digital world.

Several pathways exist for making people aware of their social connections and enabling them to act. One is through socialization.[29] The other is organizational. Organizations that are structured in ways that bring people together and foster their commonalities can evoke both empathy and respect for differences.

Political scientist Hahrie Han documents the making of such bonds and connections in explaining how participants embedded in a multiracial evangelical organization were able to change their attitudes to each other and to prejudiced members of their larger society as they acted to create support for a universal preschool program.[30] Labor organizer and sociologist Marshall Ganz makes a similar point with his examples of how the relationships developed in civic associations can become commitments to larger social causes when conscious organizing involves relationship building, storytelling, strategy, and developmental leadership committed to democratic structures and practice.[31]

In the view presented here, the state can help provide care, but it should also be expected to contribute to the creation of an expanded and inclusive community of fate around a mutual interest in care. Everyone is likely to be a provider and a recipient of care over the life course; all are dependent on other individuals as well as the government at some point. Government has a potential role in both revealing the interdependencies of the various actors across communities and making those relationships productive and viable, assisting in forming a public care network. This means reducing the frictions and the costs, both monetary and cultural. How to improve the capacity of national and local governments in building a community of care deserves further exploration. So, too, does consideration of how international governance and philanthropic organizations can work to do the same across national boundaries.

It is crucial to create an expanded and inclusive community of fate with recognition of mutual interdependence, social connectedness, and the creation of empathy for all those brought into this broad and caring community. A healthy society requires provision for the common good while also addressing the unique needs of each individual. Reciprocity is key, but it is not one-to-one or symmetric. As in the labor unions studied by Ahlquist and me, reciprocity is a community-level responsibility. Building on preexisting bonds – be they related to a neighborhood, religious institution, government, or another source of connection – the organization nourishes the responsibility of that community to its own members but also to strangers, often distant strangers, who deserve recognition as members of the larger human community. It is far less about reciprocity between individuals than about a community responsibility to take care of and stand up for those in need.

The best way of achieving an expanded and inclusive community of fate around care and caring is to develop relationships of mutual understanding and some degree of trust and empathy through a process that engages the community members in determining the kinds of policies and practices most suited to their needs. But this cannot be a simple expression of preferences. It requires deliberation and debate, learning and unlearning. It requires giving people the tools of agency that will enable them to work collectively to identify and then mobilize for their common good. And, in turn, it requires organizations and leadership that enable individuals to develop their voices and autonomy. This essay and others in this volume argue that the provision of care services is only part of the story. Also essential is caring about and listening to those who need help. Despite considerable progress as reflected in these pages, there is so much more to learn about how to achieve care in all its senses. That is the next step.

AUTHOR'S NOTE

I have presented versions of this essay in multiple venues: in June 2024, at the opening convening of the Cohesive Capitalism program at the London School of Economics, and at the Berggruen Institute symposium on "What is Universalism" in Venice; in October 2024, at the Oxford Philosophy, Law, and Politics Colloquium; and in November 2024, at the Instituto Carlos III-Juan March de Ciencias Sociales, Universidad Carlos III de Madrid. I want to thank all the participants at those sessions who gave me invaluable feedback. I am also indebted to Ashley Thomas and Alison Gopnik for their probing questions at our April 2024 meeting of "The Social Science of Caregiving." Zachary Ugolnik, Anne-Marie Slaughter, Ruth Chang, Henry Farrell, and John Ahlquist gave me extremely useful suggestions as I revised for publication.

ABOUT THE AUTHOR

Margaret Levi, a Member of the American Academy since 2001, is Professor Emerita of Political Science, Senior Fellow at the Freeman Spogli Institute for International Studies, and Faculty Fellow of the Center for Advanced Study in the Behavioral Sciences at Stanford University. She is also Jere L. Bacharach Professor Emerita of International Studies in the Department of Political Science at the University of Washington. Among her books are *Of Rule and Revenue* (1988), *Consent, Dissent, and Patriotism* (1997), and *In the Interest of Others: Organizations and Social Activism* (with John Ahlquist, 2013).

ENDNOTES

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[2] Claire M. Growney, Caitlin Zaloom, and Laura L. Carstensen, "The Human Geography of Care," *Dædalus* 154 (1) (Winter 2025): 98–16, https://www.amacad.org/daedalus/human-geography-care.

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[17] Zachary Ugolnik, "Divine Care: Care as Religious Practice," *Dædalus* 154 (1) (Winter 2025): 150–165, https://www.amacad.org/daedalus/divine-care-care-religious-practice.

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[24] Hilary Cottam, *Radical Help: How We Can Remake the Relationships between Us and Revolutionise the Welfare State* (Virago, 2019).

[25] For other examples of RWEs in caregiving, see Garlow and Slaughter, "A Worldview of Care and a New Economics"; and Maisha T. Winn and Nim Tottenham, "Looking Back to Look Forward: Leveraging Historical Models for Future-Oriented Caregiving," *Dæda-*

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O, Responsibility

Jane Hirshfield

On one side,
irretrievable spires and cobbles,
ladders, arpeggios,
boletes, apples, oysters,
lists and languages lost under sand.

On the other,
what can be wrestled with still,
reconnoitered,
returned to, repaired.

O, responsibility!
Tied to the feast of your stanchion
like a tired donkey.

With commensurate ears
one could hear the old music in you—

some June-singing thrush

or distant,
one-stringed instrument,
made of maple wood, rabbit skin, horse hair—

neither separate from nor completing the cries of the famished.

ABOUT THE AUTHOR

Jane Hirshfield, a Member of the American Academy since 2019, is the author of ten poetry books, including *The Asking: New and Selected Poems* (2023); *Ledger* (2020); *The Beauty* (2015); *Come, Thief* (2011); and *Given Sugar, Given Salt* (2001). She is also the author of two essay collections: *Ten Windows: How Great Poems Transform the World* (2015) and *Nine Gates: Entering the Mind of Poetry* (1997).

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Inside back cover: The Golden Age of Dutch art included many portraits of children and families. Gabriël Metsu's painting *The Sick Child* effectively portrays both how ill and helpless the child is (Metsu painted the work during a plague in Amsterdam) and how the child's condition elicits care and concern from the mother in the picture, as well as the viewer. Four hundred years later, it's still hard to look at this picture without wanting to help. *The Sick Child* (c. 1660) by Gabriël Metsu. Oil on canvas, 32.2 cm × 27.2 cm.

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