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DEBATE

Introduction: Debating Desirable Aging Futures through Technology

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Introduction: Debating Desirable Aging Futures through Technology

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“Nature becomes a department of human enterprise, and we discover that it was never autonomous. [...] The distinction between the natural and the cultural is revealed for the cultural construction it always was.”
(Strathern 1995, 430)

Cultures of Entrapment

In the 1995 essay “Future Kinship and the Study of Culture” Marilyn Strathern diagnoses significant shifts in the relations between ‘nature’ and ‘artifice’ throughout the modern history of the concept of culture. She argues that these relations – and thus how these concepts are distinguished – have radically changed under late 20th century de-industrialisation, which she documents across the analogical domains of culture, the (sub)urban, and kinship. For each of these domains, technologization prompts both a diagnosis of the contemporary – “nature becomes a department of human enterprise” – and a revelation – “and we discover that it was never autonomous” (Strathern 1995, 430).

Focusing particularly on how the popularization of reproductive technologies in Britain affected kinship imaginaries in the 1990s, however, Strathern encountered an ethico-epistemic situation of entrapment. She remarks that, although technologization is increasingly eroding metaphoric analogies of body and machine that have long substantiated distinctions between the natural and the artificial, the ghostly remains of this distinction keep haunting imaginaries of future kinship. Or, to put it differently: what we find in the contemporary world is the “*ability* to breach the difference” (434) between bodies (that live) and machines (that work) and imagine new conjunctions between them. Yet, the debate on reproductive technologies’ futures shows that this creative ability is entrapped by the echoes of a *cultural* distinction between nature and artifice. Strathern (1995, 434) concludes:

“Technological innovation invites us to think innovatively about how persons are born and the relatives to whom they are born. Yet instead of the potential, the creation of unique individuals and unplanned effects, the future seems increasingly trapped by present choice. It is as though creativity were trapped by artifice.”

There is a contemporary link between the technologization of reproduction and current issues in the anthropology of aging: the demographic reality of a greying population mirrors a declining fertility rate

and correlates with an increasing problematization of elder care. Both for reproduction and elder care, technological innovations are predominantly represented as a solution to the problem of ‘failed nature’ and as a means to restore a purportedly ‘natural’ state – genetic procreation or aging-in-place respectively. But the motivation for selecting this quote for a debate in anthropology and aging goes beyond this thematic link. More fundamentally, in “Future Kinship,” Strathern contributes to a growing feminist anthropological and STS tradition (Mol 2002, 2008; Pols 2015; Puig de la Bellacasa 2011, 2012, 2017) of thinking *through* technology as an “inventive mediator” (Mol 2008, 57) that articulates new relations between the possible and the desirable in the production of the real. For anthropologists of aging and the life course, this statement thus prompts a number of questions: What are the roles of technology in imagining, articulating, and realizing desirable aging futures? If the entrapment of creativity persists today, where, how, and why is it reinforced, and with what consequences? Conversely, how do new sociotechnical realities challenge and inspire the methodological and conceptual toolkit of scholars in anthropology and aging?

For the journal’s second edition of its debate section, *Anthropology & Aging* had the unique opportunity to hold a live debate around these questions of ‘kin’ during the EASA Agenes Conference 2024 at Ca’ Foscari University of Venice in March 2024 with the apposite theme “Kinning, Moving, and Growing in Later Life.” The podcast of this event, moderated by anthropologist Jason Danely and Debate section editor Christine Verbruggen, can be listened to [here](#). Drawing from a variety of sociotechnical assemblages of aging, kinship, and care, in different locations (India, Australia, the United Kingdom), each of the debaters responded to Strathern’s invitation to work affirmatively with contemporary enactments of technology. In the next paragraphs, we briefly introduce the debaters’ arguments in favor of or against the central statement, focusing on three related facets of Strathern’s provocation – new kinship imaginaries, posthuman affirmations, and anthropologies of/with aging futures.

Kinning, Growing, and Moving in Later Life

As the only debate participant coming out against the statement, Gomathy Kamala Naganathan seeks to actively contest the situation or entrapment that it problematizes. In “Technology as Co-actor in Kinning and ‘Desirable’ Aging,” Kamala Naganathan draws on ethnographic participation in older adults’ practices of rooftop gardening in a city in Kerala – the most ‘aging’ state of India – to conceptualize aging as a process of co-becoming or ‘kinning’ with human and more-than-human others. Reading Strathern’s statement through her participants’ experiences she finds that, much more than a technologically assisted solution to urban waste management and food safety, rooftop gardening provides Kerala older adults with the means and opportunities to re-imagine fulfilling and active aging lives and futures. Their aspirations do not follow from a ‘natural’ aging process, nor are they immanent in the technologies themselves. Rather, Kamala Naganathan analyzes, the desirable is the contingent effect of the ongoing correspondence between human and more-than-human others: biotechnologically assisted rooftop gardening provides older adults with opportunities “to make kin through becoming parents to their plant children,” (Kamala Naganathan, this issue) while digital technology provides them with the means to be informed and build and maintain a community and a living. The author not only challenges technological determinism, but also contests the negative depiction of aging as a ‘natural’ process of degeneration and loss. Instead, following Gangadhar Karalay (2024), she argues for “a life course perspective on aging” – aging as a “result of a collection of social experiences (positive or negative) brought about by a changing social world to an individual throughout their lifetime” (Kamala Naganathan, this issue) – to decenter aging as a problem of care. Reframing aging and caring as co-emerging in ecologies of support (Duclos and Criado 2020) can, in turn, have important consequences for how, why, and to what ends gerontechnology is developing (see also Panchadhyayi, Sheahan, and Hernandez, this issue).

In “Digital Kinship: The Future Calling,” Shivangi Patel similarly analyzes the role of technology at the intersection of physical, financial, and social health, but does so from the vantage point of care collectives among her research participants – 25 Indian transnational families consisting of globally migrated adult children and their aging parents living alone or with spouses in India. Today, Indian kinship practices that have long facilitated elderly care within the patriarchal family are challenged by inter- and intranational migratory flows prompted by sociodemographic changes. By arguing in favor of the central statement, Patel – like Strathern – expresses her concern for articulating new analytical concepts and introducing new methods and fieldsites in response to these emerging sociotechnical realities. From her participants, she learns that, on the one hand, ‘new’ technologies like Information Communication Technologies (ICTs) contribute to the continuity of care through kinship relations – through, for example, calling frequently as a form of distant care (see also Ahlin 2020) – while, on the other hand, these technologies also significantly alter modes of co-presence and generate new forms of care – such as children that become migrant IT workers and make the online bookings for the healthcare appointments of their parents in India. Following a material-semiotic approach (Ahlin 2020; Mol 2002; 2008; Pols 2015) Patel asks whether the prominence of new practices (e.g., calling, texting, WhatsApp, ...) and spaces (e.g., mobile phones, laptops, iPads, ...) of care should not be reflected in our understandings of kinship, care, and aging. Conversely, she wonders whether traditional ‘cultural’ conceptualizations of these ‘natural’ phenomena are not constraining the scholarly analysis of emerging sociotechnical phenomena. For kinship arrangements where digital technologies play a significant role, Patel (this issue) coins the term “digital kinship.” Although her aging participants witnessed that they felt more – not less – connected through the use of digital technologies, both intergenerationally and among their own age-groups, Patel also adds that the longing for touch, smell, and physical proximity persists in digitally mediated care and kinship relations. Should we, in other words, still consider a ‘natural’ limit to the stretching of our imagination of aging, kinship, and care, or is this limit an artificial one?

Stretching ‘the Human’ with Care

Strathern’s essay on “Future Kinship” is an anthropological contribution to a larger debate in the late 1980s and 1990s among (feminist) anthropologists, STS scholars, and other critical thinkers (see also Braidotti 1988; Haraway 1989; Ingold 1988) about what it means *to be human*. This is articulated in particular relation to technology and other more-than-human entities. Unlike transhumanists, these posthuman scholars are concerned with thinking affirmatively about hybridization as an ontological state, while, like Strathern, accounting critically for the anthropocentrism and humanism that continues to pattern and restrict processes of co-becoming.

In “Technologized Intimacies and Posthuman Kinship Across the Life Course,” Sayendri Panchadhyayi analyzes technologically mediated practices of (social) reproduction at the beginnings and ends of life from an explicitly posthuman perspective. Panchadhyayi argues in favor of Strathern’s statement, suggesting that it makes a case for an affirmative approach to the “process of stretching” (Panchadhyayi, this issue) the boundaries of what it means *to be human* in light of changing (kinship) futures. She explores two kinds of sociotechnical assemblages that have been designed as responses to a demographic transition, namely humanoid care robots in elder care and Assistive Reproductive Technologies (ARTs). Interestingly, for both these domains, she points to the janus face of technology – as both constructed and constructionist (Hamblin and Lariviere 2023) – and calls for a posthuman affirmation of human-technology assemblages. An affirmative approach combines an active participation in the new realities that hybridization produces with a critical recognition of the ‘entrapment’ that looms if posthuman assemblages are designed and studied according to humanist standards, to the extent that they reinforce existing inequalities and violences. For example, as

Panchadhyayi analyzes, whereas anthropomorphic care robots can support older adults to live at home, be less dependent on kin, communities, and other caregivers, they are currently being developed and implemented in a culture of technosolutionism and ageism that, like in Japan, reproduces an idealized past of kin-based care. On the other hand, because of the porosity of sociotechnical assemblages, “posthuman subject-material entities are in a state of continuous construction and reconstruction” (Panchadhyayi, this issue) and have the potential to deterritorialize these imaginaries and contribute to an otherwise. For ARTs there is a similar paradox: on the one hand ARTs have “retooled the public and private discourse on reproduction and kinship” (Panchadhyayi, this issue) by extending the opportunities for genetic procreation to middle-aged women and same-sex couples, amongst others. On the other hand, the critical question remains whether ARTs do not simply reinforce existing kinship norms and impede women’s emancipation from compulsory reproduction. Taken together, Panchadhyayi’s work highlights the need for a posthuman ethics (Braidotti 2019) to design, implement, and analyze technologies. Her contribution connects Strathern’s provocation with the work of posthuman scholars such as Amelia De Falco (2020, 40), who starts from speculative fiction on humanoid care robots to show “the friction of posthuman entities operating within humanist care frameworks.”

Thinking *with* Technologies *with* Futures of Aging

In “Future Kinship,” Strathern reflects on the future of (the concept of) kinship through a critical consideration of the social temporalities of technology. The sensationalism in the public debate on reproductive technologies in the 1990s in Britain, she (1995, 432) argues, came from the future orientation of the debate: “what is taken for granted, is that technology is about the future.” Since it is indeterminate in which socio-economic and ethico-political ecologies new technologies will ever thrive, in this future dimension “the parameters of the technology seem self-determining” (Strathern 1995, 432). Following this techno-determinism – in both techno-optimism and in techno-pessimism – humans are producing technologies that are *themselves* considered to be capable of realizing particular futures, including those that are no longer ‘human.’ Paradoxically, however, such techno-determinist reasoning reinforces the essentialization of what the ‘naturally human’ is: judgments about the desirability or the ‘good’ of technological developments depend on whether or not they are considered to enable or corrupt ‘human’ desires (e.g., for procreation before the age of infertility, for care in the community, for family-based kinship) and thus on the projection of essentialized humanity into the future. In such a circular reasoning, it is not clear how humans and their technologies could ever coproduce social change beyond their contemporary ‘humanity’ and it is exactly this anachronism that is the situation of entrapment that Strathern brings to our attention.

Conversely, decentering ‘the human’ in the co-becoming of human and technology, we are confronted with the fact that ‘we’ – contemporary humans – do not know what ‘we’ – future humans – will desire, because “if there are seemingly no barriers to what is open to artificial intervention, then there are seemingly no givens either, and nowhere else for law and traditional ethics to exist” (Strathern 1995, 433). A central issue when considering the role of technology in desirable aging futures and in the development of technologies, then, is to think pragmatically and creatively about how to imagine future possibilities, their humans, and contingent ethics beyond determinism.

This methodological and ethical challenge is taken up by two debaters, Miguel Gomez-Hernandez and Jacob Sheahan, who share a background in design anthropology. Gomez-Hernandez draws on Futures Anthropology (Pink and Salazar 2017), design ethnography (Pink et al. 2022), and design+ethnography+futures (Akama et al. 2018) to conceptualise aging futures with people. He combines an immersive move – “moving ourselves into futures and paying attention to how we move

and improvise along the way” as proposed by Ingold (2021) – with an ethnographic sensitivity to the narrative and multisensorial ways aging bodies imagine pasts, presents, and futures with technology. Working with the “experiential, contingent, and serendipitous everyday in the generation of imaginations” (Gomez-Hernandez, this issue) is particularly relevant when researching imaginaries of aging-in-place. Interestingly, Gomez-Hernandez combines AgeTech futures (based on a desktop review of 49 AgeTech industry reports predicting aging-technology futures) with generative AI (GenAI) to produce ‘future’ scenarios as artefacts that participate in his video-ethnographic visits in older people’s homes in Australia. The radical future and techno-solutionist imaginaries that are distilled from the AgeTech reports allow his participants to clearly articulate their desires for their future lives that, more often than not, differ from the predictions of nation-state and industry players that these AgeTech futures represent. Whereas the latter predominantly focus on safety and care and thus project the contemporary problematization of aging and care into the future, his participants imagine desirable futures from their present aesthetic and relational preferences and possibilities – from desires, hopes, and anxieties rather than from needs. Gomez-Hernandez’ methodological innovations and interventions provide a concrete answer to Strathern’s provocation, as they attest to the performativity of ‘futuring’ that, when facilitated in between creativity and artifice, has the potential to corrode cultures of entrapment.

Jacob Sheahan similarly mobilizes design anthropological theory and methodology to contest the problematization of aging and care that dominates futures of aging-in-place, and thus the development of gerontechnology. Inspired by a feminist ethics of care in technoscience (Puig de la Bellacasa 2011, 2017) he is particularly critical of a restorative notion of care (Duclos and Criado 2020) – in which care is understood as the remediation of deficits – that dominates technological advancements and reduces ‘desirable’ aging futures to safe, cheap, and ‘invisible’ aging futures. Sheahan connects three dialogues from a design anthropology perspective, to substantiate this critique and “reflect on the depth and aspirations so many have for aging-in-place” (Sheahan, this issue). First, like Gomez-Hernandez, he looks at how narratives of aging are being mirrored by artificial intelligence (AI). Sheahan draws on eight stories of aging futures with technology that were developed together with designers and aged participants. Contrasting four AI and four designer-crafted narratives, Sheahan’s research showed that the former tend to ‘humanize’ care systems – “telling tales of robots pondering ethical dilemmas or developing keen empathy for those in their care” (Sheahan, this issue) – and significantly reduce complexity and indeterminacy of everyday life. Second, and related to that, Sheahan makes a case for “friction” in design to subvert technosolutionist relations between aging, care, and technology that dominate contemporary AgeTech futures. ‘Friction’ is an affirmatively critical concept if we consider how much of technological design “has been focused on limiting and reducing this [emotional, physical, and financial] burden and increase the efficiency of care work” (Sheahan, this issue). Friction in design requires a response-able and careful (Puig de la Bellacasa 2011) relation to technology and to the indeterminacies of past, present, and future realities. This cross-temporal and intergenerational dimension is central to Sheahan’s third provocation, which focuses on the ethical and pragmatic importance of considering *our* aging futures. Response-able ‘futuring’ and envisioning future kinships, he argues, is a “process of forecasting and backcasting what aging-in-place can become” and thus of “deeply reconnecting with the realities of today” (Sheahan, this issue). Designing *our* desirable aging futures is thus also about carefully rerooting our imagination and being accountable to how we are related: with past, present, and future, human and more-than-human, near and distant kin. With his last provocation, Sheahan thus echoes what the five debaters have distilled from in between the lines of Strathern’s statement: that to live, imagine, design, and research desirable aging lives, requires the constant and often uneasy negotiation of fidelity and neglect (Zigon 2014) in a constantly changing world.

Notes

1. For an introduction to the format of the Debate as an annual section in *Anthropology & Aging*, see: Verbruggen 2023.
2. For a comprehensive overview of the similarities and differences between posthumanism and transhumanism, see: Ferrando 2013.
3. For a recent critique on the design and implementation of care robots in Japan, see: Wright 2023.

References

- Akama, Yoko, Sarah Pink, and Shanti Sumartojo. 2018. *Uncertainty and Possibility: New Approaches to Future Making in Design Anthropology*. London, UK: Bloomsbury Academic.
- Ahlin, Tanja. 2020. "Frequent Callers: 'Good care' with ICTs in Indian Transnational Families." *Medical Anthropology* 39 (1): 69-82. <https://doi.org/10.1080/01459740.2018.1532424>
- Braidotti, Rosi. 1988. "Organs without Bodies." *Differences: A Journal of Feminist Cultural Studies* 1: 147-161. <https://doi.org/10.1215/10407391-1-1-147>
- _____. 2019. "A Theoretical Framework for the Critical Posthumanities." *Theory, Culture & Society* 36 (6): 31-61. <https://doi.org/10.1177/0263276418771486>.
- DeFalco, Amelia. 2020. "Towards a Theory of Posthuman Care: Real Humans and Caring Robots." *Body and Society* 26 (3): 31-60. <https://doi.org/10.1177/1357034X20917450>
- Duclos, Vincent, and Tomás Sánchez Criado. 2020. "Care in Trouble: Ecologies of Support from Below and Beyond." *Medical Anthropology Quarterly* 34 (2): 153-73. <https://doi.org/10.1111/maq.12540>
- Ferrando, Francesca. 2013. "Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms." *Existenz* 8 (2): 26-32.
- Hamblin, Kate, and Matthew Lariviere, eds. 2023. *Care Technologies for Ageing Societies: An International Comparison*. Bristol, UK: Policy Press.
- Haraway, Donna. 1989. "The Biopolitics of Postmodern Bodies: Determinations of Self in Immune System Discourse." *Differences* 1: 3-43. <https://doi.org/10.1215/10407391-1-1-3>
- Ingold, Tim. 1988. "Tools, Minds, and Machines: An Excursion in the Philosophy of Technology." *Techniques et Culture* 12: 151-176.
- _____. 2021. *Imagining for Real: Essays on Creation, Attention and Correspondence*. Milton Park, UK: Taylor & Francis Group.
- Karalay, Gangadhar. 2024. *Sociology of Ageing: A South Asia Perspective*. Milton Park, UK: Taylor & Francis
- Mol, Annemarie. 2002. *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
- _____. 2008. *The Logic of Care: Health and the Problem of Patient Choice*. London, UK: Routledge.
- Peine, Alexander, Barrie Marshall, Wendy Martin, and Louis Neven, eds. 2021. *Socio-gerontechnology: Interdisciplinary Critical Studies of Ageing and Technology*. Abingdon-on-Thames, Oxfordshire, UK: Routledge.
- Pink, Sarah, and Juan Francisco Salazar. 2017. "Anthropologies and Futures: Setting the Agenda." In *Anthropologies and Futures*, 1st ed., edited by Juan Francisco Salazar, Sarah Pink, Andrew Irving, and Johannes Sjöberg, 3-22. London, UK: Routledge.
- Pink, Sarah, Vaike Fors, Debora Lanzeni, Melisa Duque, Shanti Sumartojo, and Yolande Strengers. 2022. *Design Ethnography: Research, Responsibilities, and Futures*. London, UK: Routledge.

- Pols, Jeannette. 2015. "Towards an Empirical Ethics in Care: Relations with Technologies in Health Care." *Medicine, Health Care and Philosophy* 18 (1): 81-90. <https://doi.org/10.1007/s11019-014-9582-9>
- Puig de La Bellacasa, Maria. 2011. "Matters of Care in Technoscience: Assembling Neglected Things." *Social Studies of Science* 41 (1): 85-106. <https://doi.org/10.1177/03063127103880301>
- _____. 2012. "'Nothing Comes Without its World': Thinking with Care." *The Sociological Review* 60 (2): 197-216. <https://doi.org/10.1111/j.1467-954X.2012.02070.x>
- _____. 2017. *Matters of Care: Speculative Ethics in More than Human Worlds*. Minneapolis: University of Minnesota Press.
- Strathern, Marilyn. 1992a. *Reproducing the Future: Essays on Anthropology, Kinship and the New Reproductive Technologies*. Manchester, UK: Manchester University Press.
- _____. 1992b. *After Nature: English Kinship in the Late Twentieth Century*. Cambridge: Cambridge University Press.
- _____. 1995. "Future Kinship and the Study of Culture." *Futures* 27 (4): 423-435. [https://doi.org/10.1016/0016-3287\(95\)00014-N](https://doi.org/10.1016/0016-3287(95)00014-N)
- Verbruggen, Christine. 2023. "Care as Critique and Debating the Ageless Self." *Anthropology & Aging* 44 (1): 86-91. <https://doi.org/10.5195/aa.2023.482>
- Wright, James Adrian. 2023. *Robots Won't Save Japan: An Ethnography of Eldercare Automation*. Ithaca, NY: Cornell University Press.
- Zigon, Jarrett. 2014. "Attunement and Fidelity: Two Ontological Conditions for Morally Being-in-the-World." *Ethos* 42 (1): 16-30. <https://doi.org/10.1111/etho.12036>