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Leaky Bodies and Environments: Infant feeding and design

Sutherland, Sally

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Leaky Systems: Infant feeding and design

Sally Sutherland

School of Architecture, Technology and Engineering, University of Brighton

It is well established that breastfeeding or chestfeeding is immensely beneficial to breastfeeding mothers, chestfeeding parents, and infants throughout their life spans. There are wide-ranging and far-reaching benefits to increasing breastfeeding rates in all areas of the world (Victora et al., 2016). Despite the many benefits, recorded rates in the UK remain among the lowest in the world (Renfew et al., 2012). Mainstream British culture, support, and literature positions infant feeding as a personal choice and a local issue. However, choosing how to feed a child is not an open and unrestricted choice (Brown, 2021). This illusion of choice is coupled with public health messaging encouraging new mothers and birthing people to exclusively breastfeed or chestfeed their children. However, parents and infants are surrounded by a systemic and cultural lack of support to do so, placing the mother or parent in a double bind. Shame and guilt commonly occur in association with infant feeding experiences, regardless of how a child is fed (Jackson et al., 2021). In this paper, I argue that it is possible and necessary to move outside binary expectations of infant feeding dyads, expanding the field of vision or situation of focus when seeking to understand UK infant feeding practices. I argue that human bodies and (often designed) environments are 'leaky' and permeate each other. This leakage happens in different ways, from the physical to the cultural and behavioural. The consequences of the leakage are substantive and insidious. I discuss how lactating bodies, feeding bodies and eating bodies are among many interrelating leaky ecological bodies. Furthermore, these and other ecological

and environmental systems, matters and meanings' leak' into and between infant feeding and design. I argue that how infants are fed (in the UK or elsewhere) is a critical issue of planetary health, that issues of planetary health impact infant feeding bodies, and that these relationships are mediated by design. Therefore, recognising and discussing 'leaky systems' in and through design enable possibilities for understanding and responding to complex planetary health issues.

KEYWORDS: leaky bodies, leaky systems, leaky design, design research, design and motherhood, design and childhood, design and parenthood, infant feeding, design and health, planetary health, breastfeeding, chestfeeding, motherhood, parenthood, childhood, feeding, eating, lactation

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Presentation summary

Using infant formula milk is by far the most common way to feed babies and infants in the UK. However, UK infant feeding practices and norms have far-reaching consequences for human and planetary health. This paper uses the term 'planetary health' as "the health of human civilization and the state of the natural systems on which it depends"(Whitmee. et al., 2015).

Significant environmental and ecological impacts of not breastfeeding come from the production, packaging, and distribution of infant formula milk (Karlsson et al., 2019) as well as from the landfill that results from the teats, bottles and sterilisers needed for the practice of bottle feeding (Brown, 2021). Social impacts also result from increased healthcare costs and the need for doctor and hospital appointments and resources, which in turn also have further environmental impacts (Joffe et al., 2019). Therefore, the 'design' of breastfeeding has significant 'planetary health' impacts. Many of these impacts are displaced harms affecting people, climate, ecological and environmental systems in distinctly different parts of the world from where individual feeding 'practices' are occurring.

In this paper, I argue that a ‘leaky system’ approach that takes leaky bodies, leaky environments and leaky design seriously may enable design modes and methodologies that engage in the complex situation of UK infant feeding in a meaningful way.

Leaky bodies

By recognising humans as ecological beings and not separate from 'nature' (Shiva, 2020), human bodies become part of and not separate from complex ecosystems of matters and meanings. By this, I mean that bodies in an infant feeding dyad 'leak' into the environments that surround them, most obviously through a direct physical process such as lactation, sweat, vomit, breath, language or blood. Similarly, the physical environment leaks back into the bodies that humans inhabit, for example, through food, air, toxins, norms, rituals or paradigms. These matters and meanings cannot be separated (Barad, 2007).

Human changes to environments and environmental issues also 'leak back' into human, maternal and lactating bodies. This leakage is materially evident in the complex composition of human milk. The first recorded environmental pollutant found in human milk was the insecticide DDT in 1951 (Mead, 2008). Just over a decade later, Rachel Carson's (1962) book Silent Spring which connected environmental health with human health, kicked off a successful campaign to ban DDT. Nevertheless, due to the widespread use of the insecticide, a 2008 study recognised that DDT is being recorded in human milk tested worldwide (Mead, 2008). Recent studies into human milk have detected microplastics for the first time (Ragusa. et al., 2022) and highlight the impact of diet, lifestyle, and environmental pollutants on human milk composition (Pajewska-Szmyt. et al., 2019). Nevertheless, due to the low levels of toxins, feeding infants human milk with toxins remains much more beneficial than feeding them infant formula (Brown, 2021).

Leaky design

This physical and material leaking into and out of human bodies is a consequence of design and design decisions which impact diet, lifestyle, and environmental pollutants. Therefore, I argue that extractivist and polluting materials, modes and methods used in design, are partly responsible or complicit in ongoing environmental health issues,

made evident by how they leak back into lactating and infant bodies. By complicit, I include both active and passive involvement and how that shapes people's experiences and actions. I argue that design research must consider how the environment permeates bodies in the infant feeding dyad and work to lessen the toxins in human milk.

The UK-designed world also hosts norms, power systems, systems of oppression, and ideologies which do not or are complicit in not supporting breastfeeding and chestfeeding practices. Infant formula feeding norms and related messages are embedded within spaces, objects, systems, and structures. They impact how women, parents, and infants can or cannot negotiate infant feeding 'choices' (Sutherland, 2023). These largely invisible but highly significant impacts are rarely discussed, despite insidiously affecting infraordinary everyday lives, lifelong human health inequities and planetary health.

Leaky systems

Approaching infant feeding systemically with design, I argue that any related ‘systems’ are situational, not static or fixed, and these systems are leaky.

While seeking to improve human, maternal, and infant health outcomes by enabling more supportive and inclusive infant feeding practices, the wider contexts of planetary health are also not separable from the direct impacts on individual humans. Design approaches to health-related practices that do not acknowledge planetary and broader health entanglements can result in responses that are not resilient or sustainable and potentially harmful to wider global and human health. Therefore, I argue that it is naïve to falsely separate UK public breastfeeding issues from planetary health challenges.

This example illustrates how attending to “leaky systems” in localised and immediate human health needs and including broader ecologically systemic implications of health-related practices provides a contextualisation that may enable new explorations. A ‘leaky systems’ approach enables repertoires for engaging design in the complex situation of UK infant feeding, moving away from rationalist taming or short-term solving of isolated problems.

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