

69 Dag Svanæs, "Interaction Design for and with the Lived Body: Some Implications of Merleau-Ponty's Phenomenology," *ACM Transactions on Computer-Human Interaction (TOCHI)* 20, no. 1 (2013): 8, DOI: <https://doi.org/10.1145/2442106.2442114>.

70 David Kirsh, "Embodied Cognition and the Magical Future of Interaction Design," *ACM Transactions on Computer-Human Interaction (TOCHI)* 20, no. 1 (2013): 3, DOI: <https://doi.org/10.1145/2442106.2442109>.

71 Shusterman, *Thinking Through the Body*.

72 Arran Gare, *Philosophical Foundations of Ecological Civilization: A Manifesto for the Future* (London: Routledge, 2016).

73 Peter Dalsgaard, "Pragmatism and Design Thinking," *International Journal of Design* 8, no. 1 (2014): 143–55.

74 Kimbell, "Rethinking Design Thinking: Part I," 285–306.

Merleau-Ponty's view of perception as an interactive, whole body experience. Svanæs also discusses the importance of movement and the *kinaesthetic sense* for creativity in the design process.⁶⁹ In the context of performing arts, David Kirsh studied the way expert dancers learn new dance phrases. He found that the imperfect simulation of new phrases – a process called marking – is a better method of practicing than performing complete phrases.⁷⁰ He likens this to the creation of a model or sketch. The notion that incomplete, analogue and gestalt representations are better for learning complex dance phrases resonates with our understanding of sketches and prototypes as representations of the implicit dimension of experience. At the same time, Kirsh draws some of his views on perception from a different stream of embodied cognition than the one we have discussed. The finer points of this are beyond the scope of this article but would be worth exploring in future research. Some connections have also been made between the burgeoning interdisciplinary field of somaesthetics and HCI.⁷¹ These interdisciplinary connections are fascinating and full of potential for further exploration, theoretically and empirically.

More broadly, a move beyond dualisms of objective and subjective, which necessitates dialectical thinking, is underway in many disciplines. This context is a theoretical movement, which philosopher Arran Gare terms "speculative naturalism."⁷² Design thinking benefits from being situated in existing, well-developed theories, as already suggested by some.⁷³ Today's complex problems demand an understanding of human creativity that does not privilege any one discipline but explores the potential contribution of specific skills and paradigms. The fact that design thinking de-politicizes design for management⁷⁴ is a problem. Humanity is currently facing genuinely complex problems. To even begin to solve these, we need to stop the jostling for position in pre-set economic agendas and seek possibilities for change inherent in our common humanity.

Commentary

Making Sense of Design Thinking

Alissa N. Antle, School of Interactive Arts + Technology,
Simon Fraser University, Canada

aantle@sfu.ca

<https://doi.org/10.1016/j.sheji.2017.10.003>

It is no accident that the word "sense" appears in the expression "making sense." We traditionally interpret making sense as an activity that largely occurs in the mind. This is because the phrase is a metaphor, and like most metaphors, we instantly and uncritically associate it with a meaning. Upon careful inspection, the phrase betrays the bodily origins of thinking

and reasoning which are – in embodied accounts of cognition – grounded in the senses. While embodied cognition is a relatively recent addition to academic dialogue,¹ the language we use to describe cognition suggests that we have always known that the senses are involved in thinking and reasoning about the world.

The stated goal of Karin Lindgaard and Heico Wesselius's article² is to make sense of design thinking by bringing the senses back into the understanding of how designers think and reason during design activity.

To achieve this, the authors begin by introducing several key ideas from an embodied account of cognition. They introduce sense making processes including metaphor theory, visual gestalts, and felt experience, and suggest that these processes may be foundational in designers' material practices. They situate their work as fitting into the academic discourse about design thinking as a cognitive style, as articulated by Lucy Kimbell, and take a stance on design activity as reflective practice as articulated by Donald Schön. The authors state that their contribution is "suggestive

rather than definitive.”³ They suggest that the value that an embodied account of cognition may have for explaining design thinking is to provide an alternative to the overly structured and logical accounts put forward by those like Herbert Simon. The authors state that the end goal of their article is to ensure that dialogue continues around this phenomena from a scholarly perspective, in contrast to accounts of design thinking from the perspectives of industry and management, which the authors suggest are often anecdotal.

I find it encouraging that more and more research domains concerned with human sense making are beginning to explore and apply theories of embodied cognition. The article does a service to those in the design community who are not familiar with embodied cognition. That said, an embodied account of cognition has been prevalent in the human-computer interaction and interaction design literature for some time now.⁴ However, the application of this model of cognition to understanding how designers work has been largely absent – and it is here that this article makes its greatest contribution.

Lindgaard and Wesselius provide a succinct and relatively clear introduction to the re-emergence in the twentieth century of the notion that the body matters in cognition. A notion that challenges the established dualistic theories that have been dominant in Western thought for much of the last 300 years thanks to Cartesian dualism and the mind-body split. The authors adequately explain metaphor theory and visual gestalts and then turn their attention to the description of the feeling of bodily movement in a situation as a sense of fit. In the latter account, they move away from established theories, and in doing so, they appear to struggle to provide a coherent explanation of how – and why – the body and mind work together during design activity. They touch on the relationship between emotion and cognition and put forward a hierarchical model in which preconscious processes including emotion guide action and set the tone for subsequent interpretation of sensory information and application in abstract reasoning. They define a sense of fit as when “feeling emerges – initially as the sense of how well an action might meet the demands presented by the situation”⁵ and then argue that this feeling informs subsequent abstract reasoning. The role of the body in this account is to offer simulations that precede perceptions that rise to the surface of consciousness and provide a feeling that something is a fit or is not quite right for a particular design situation. Upon reading this description, I found no account of how emotion might create an impetus to

act in way that would lead a designer to have a feeling about the rightness of a solution. It is possible that by “feeling” the authors are referring to *qualia*⁶ – our subjective experience of how things seem to us in a particular situation – which may or may not involve action. It is also possible that this feeling or *qualia* that drives decision making around the rightness of a solution may be what Daniel Kahneman refers to as intuitive thinking.⁷ Intuitive thinking is grounded in perception. It is predictive, automatic, often unconscious, and associatively coherent. The challenge with rooting a model of design thinking in this type of experiential bodily feeling is that these processes may not be the best basis for decision making in design. As Kahneman warns, there are many problems with intuitive thinking, including faulty heuristics and unrecognized biases that impact judgment and result in cognitive errors.⁸ A second concern that I have with this section is that when the authors introduce Eugene Gendlin’s work, they state that “cognition has two sides – this felt sense, and symbols.”⁹ Here, the authors veer away from a core assumption of embodied cognition – abstract reasoning is inseparable from bodily sensations.

In the realm of interdisciplinary work, definitions provide a common language for readers from disparate backgrounds. One of the challenges presented by Lindgaard and Wesselius’s article is that they do not adequately define what they mean by felt experience in the context of design thinking and design activity. Nor do they go far enough, when they describe embodied processes, to provide an account of how and why the body matters for design thinking. However, I think this can be addressed by extending what the authors started and clarifying why an embodied account of cognition matters for designers, design researchers, and design theorists.

If we begin with the work of Donald Schön – the scope set by Lindgaard and Wesselius for their article – design thinking is *reflective practice*. This practice consists of iterative problem framing and solution generation in which materials – sketches, prototypes, storyboards, and the like – play a role in a designer’s understanding or sense making in the context of a design problem. We can then define design thinking by drawing on George Lakoff and Mark Johnson’s work on metaphor theory,¹⁰ extending the ideas introduced by the authors.

Metaphor theory explains how bodily experiences lead to neural patterns called gestalts or image schemas, which we use to understand our physical and perceptual experiences. Image schema and gestalts are generalizations. They structure many of our

Download English Version:

<https://daneshyari.com/en/article/7431129>

Download Persian Version:

<https://daneshyari.com/article/7431129>

[Daneshyari.com](https://daneshyari.com)