

---

# idea journal

---

co-constructing body-environments

---

vol. 17, no. 02

---

2020

---

the journal of IDEA: the Interior design +  
Interior architecture educators' association



vol.17, no.02  
2020

co-constructing  
body-environments



# idea journal

---

co-constructing body-environments

---

vol. 17, no. 02

---

2020

---

the journal of IDEA: the interior design +  
interior architecture educators' association

## about

IDEA (Interior Design/Interior Architecture Educators' Association) was formed in 1996 for the advancement and advocacy of education by encouraging and supporting excellence in interior design/interior architecture education and research within Australasia.

[www.idea-edu.com](http://www.idea-edu.com)

The objectives of IDEA are:

### 1. Objects

3.1 The general object of IDEA is the advancement of education by:

- (a) encouraging and supporting excellence in interior design/interior architecture/spatial design education and research globally and with specific focus on Oceania; and
- (b) being an authority on, and advocate for, interior design/interior architecture/spatial design education and research.

3.2 The specific objects of IDEA are:

- (a) to be an advocate for undergraduate and postgraduate programs at a minimum of AQF7 or equivalent education in interior design/interior architecture/spatial design;
- (b) to support the rich diversity of individual programs within the higher education sector;
- (c) to create collaboration between programs in the higher education sector;
- (d) to foster an attitude of lifelong learning;
- (e) to encourage staff and student exchange between programs;
- (f) to provide recognition for excellence in the advancement of interior design/interior architecture/spatial design education; and
- (g) to foster, publish and disseminate peer reviewed interior design/interior architecture/spatial design research.

## membership

### *Institutional Members:*

Membership is open to programs at higher education institutions in Australasia that can demonstrate an on-going commitment to the objectives of IDEA.

### *Current members:*

AUT University, Auckland  
Curtin University, Perth  
Massey University, Wellington  
Monash University, Melbourne  
Queensland University of Technology, Brisbane  
RMIT University, Melbourne  
University of New South Wales, Sydney  
University of South Australia, Adelaide  
University of Tasmania, Launceston and Hobart  
University of Technology Sydney, Sydney  
Victoria University, Wellington

### *Affiliate Members:*

Affiliate membership is open to programs at higher education institutions in Australasia that do not currently qualify for institutional membership but support the objectives of IDEA. Affiliate members are non-voting members of IDEA.

### *Associate Members:*

Associate membership is open to any person who supports the objectives of IDEA. Associate members are non-voting members of IDEA.

### *Honorary Associate Members:*

In recognition of their significant contribution as an initiator of IDEA, a former chair and/or executive editor: Suzie Attiwill, Rachel Carley, Lynn Chalmers, Lynn Churchill, Jill Franz, Roger Kemp, Tim Laurence, Gini Lee, Marina Lommerse, Gill Matthewson, Dianne Smith, Harry Stephens, George Verghese, Andrew Wallace and Bruce Watson.

**publishing**

© Copyright 2020 IDEA (Interior Design/Interior Architecture Educators' Association) and AADR (Spurbuchverlag) and authors

All rights reserved.

No part of the work must in any mode (print, photocopy, microfilm, CD or any other process) be reproduced nor – by application of electronic systems – processed, manifolded nor broadcast without approval of the copyright holders.

ISSN 2208-9217

ISBN 978-3-88778-917-6

Published by Art Architecture Design Research (AADR): [aadr.info](http://aadr.info).  
AADR publishes research with an emphasis on the relationship between critical theory and creative practice. AADR Curatorial Editor: Dr Rochus Urban Hinkel, Melbourne.

IDEA (Interior Design/Interior Architecture Educators' Association)  
ACN 135 337 236; ABN 56 135 337 236

Registered at the National Library of Australia

*idea journal* is published by AADR and is distributed through common ebook platforms. Selected articles are available online as open source at time of publication, and the whole issue is made open access on the idea journal website one year after its date of publication.



**IDEA** Interior Design/  
Interior Architecture  
Educators Association

**idea journal editorial board**

Dr Julieanna Preston, Executive Editor, Professor of Spatial Practice, Massey University, Wellington, New Zealand

Dr Anthony Fryatt, Program Manager, Bachelor of Interior Design (Hons), RMIT University, Melbourne, Australia

Dr Susan Hedges, Senior Lecturer, Spatial Design, School of Art and Design, Auckland University of Technology, Auckland, New Zealand

Dr Antony Pelosi, Senior Lecturer, Interior Architecture, Victoria University of Wellington, New Zealand

Dr Luke Tipene, Lecturer, School of Architecture, University of Technology Sydney, Sydney, Australia

Professor Lois Weinthal, External Advisory Member, Chair of the School of Interior Design, Ryerson University, Toronto, Canada

**cover image**

Animation by Jo Bailey (2020) of "Giacometti Strata, Bioscleave" (2015).  
Robert Bowen, Photographer

**online publication editor**

Dr Antony Pelosi, Senior Lecturer, Interior Architecture, Victoria University of Wellington, New Zealand

**copy editor**

Dr Christina Houen, Perfect Words Editing

**design + production**

Jo Bailey, School of Design, Massey University, Wellington, New Zealand

**correspondence**

Correspondence regarding this publication should be addressed to:

Dr Lynn Churchill  
c/o *idea journal*  
Interior Architecture  
Curtin University  
GPO Box U1987  
Perth 6845  
Western Australia

[l.churchill@curtin.edu.au](mailto:l.churchill@curtin.edu.au)

**co-constructing body-environments:  
provocation**

Presenters at *Body of Knowledge: Art and Embodied Cognition Conference* (BoK2019 hosted by Deakin University, Melbourne, June 2019) are invited to submit contributions to a special issue of *idea journal* "Co-Constructing Body-Environments" to be published in December 2020. The aim of the special issue is to extend the current discussions of art as a process of social cognition and to address the gap between descriptions of embodied cognition and the co-construction of lived experience.

We ask for papers, developed from the presentations delivered at the conference, that focus on interdisciplinary connections and on findings arising from intersections across research practices that involve art and theories of cognition. In particular, papers should emphasize how spatial art and design research approaches have enabled the articulation of a complex understanding of environments, spaces and experiences. This could involve the spatial distribution of cultural, organisational and conceptual structures and relationships, as well as the surrounding design features.

Contributions may address the questions raised at the conference and explore:

- + How do art and spatial practices increase the potential for knowledge transfer and celebrate diverse forms of embodied expertise?
- + How the examination of cultures of practice, Indigenous knowledges and cultural practices offer perspectives on inclusion, diversity, neurodiversity, disability and social justice issues?
- + How the art and spatial practices may contribute to research perspectives from contemporary cognitive neuroscience and the philosophy of mind?
- + The dynamic between an organism and its surroundings for example: How does art and design shift the way knowledge and thinking processes are acquired, extended and distributed?
- + How art and design practices demonstrate the ways different forms of acquiring and producing knowledge intersect?

These and other initial provocations for the conference can be found on the conference web-site: <https://blogs.deakin.edu.au/bok2019/cfp/>.

**reviewers for this issue**

Charles Anderson  
Cameron Bishop  
Rachel Carley  
Felipe Cervera  
Harah Chon  
Chris Cottrell  
David Cross  
Rea Dennis  
Pia Ednie-Brown  
Scott Elliott  
Andrew Goodman  
Stefan Greuter  
Shelley Hannigan  
Mark Harvey  
Susan Hedges  
Jondi Keane  
Meghan Kelly  
Gini Lee  
Marissa Lindquist  
Alys Longley  
Olivia Millard  
Belinda Mitchell  
Patrick Pound  
Remco Roes  
Luke Tipene  
George Themistokleous  
Russell Tytler  
Rose Woodcock

## in this issue

- 08** introduction: unknowingly, a threshold-crossing movement  
**Julieanna Preston**
- 13** enacting bodies of knowledge  
**Jondi Keane**  
**Rea Dennis**  
**Meghan Kelly**
- 32** 'how do I know *how* I think, until I see what I say?': the shape of embodied thinking, neurodiversity, first-person methodology  
**Patricia Cain**
- 58** how moving is sometimes thinking  
**Shaun Gallagher**
- 69** movement, narrative and multiplicity in embodied orientation and collaboration from prehistory to the present  
**David Turnbull**
- 87** 'stim your heart out' and 'syndrome rebel' (performance artworks, autism advocacy and mental health)  
**Prue Stevenson**
- 105** gentle house: co-designing with an autistic perception
- 121** sympathetic world-making: drawing-out ecological-empathy  
**Pia Ednie-Brown**  
**Beth George**  
**Michael Chapman**  
**Kate Mullen**
- 144** shared reality: a phenomenological inquiry  
**Jack Parry**
- 163** embodied aporia: exploring the potentials for posing questions through architecture  
**Scott Andrew Elliott**
- 180** embodiment of values  
**Jane Bartier**  
**Shelley Hannigan**  
**Malcolm Gardiner**  
**Stewart Mathison**

- 201** sensing space: an exploration of the generation of depth and space with reference to hybrid moving image works and reported accounts of intense aesthetic experience  
**Sally McLaughlin**
- 215** sound, silence, resonance, and embodiment: choreographic synaesthesia  
**Lucía Piquero Álvarez**
- 230** musicking as ecological behaviour: an integrated '4e' view  
**Michael Golden**
- 248** everything of which I was once conscious but have now forgotten: encounters with memory  
**Mig Dann**
- 265** re-presenting a dance moment  
**Ashlee Barton**
- 275** hidden worlds: missing histories affecting our digital future  
**J Rosenbaum**
- 289** is my body out of date? the drag of physicality in the digital age: re:presenting and re:playing bodies and knowledge across time and space  
**Elly Clarke**
- 326** seeing not looking  
**Anne Wilson**
- 335** dance as a social practice: the shared physical and social environment of group dance improvisation
- 350** performance and new materialism: towards an expanded notion of a non-human agency  
**Alyssa Choat**

# introduction: unknowingly, a threshold-crossing movement

**Julianna Preston**

Executive Editor

*idea journal*

It is in this special issue that the editorial board holds true to our promise to expand the horizons and readership of *idea journal* while reaching out to associated and adjacent art, design and performance practices and drawing connections to seemingly distant disciplines. The articles in this issue have provenance in a 2019 conference event, Bodies of Knowledge (BOK), which was guided by a similar interdisciplinary ethos. With an emphasis on cultures of practice and communities of practitioners that offer perspectives on inclusion, diversity/neurodiversity and disability, this conference, and this subsequent journal issue, aim to increase knowledge transfer between diverse forms of embodied expertise, in particular, between neuroscience and enactive theories of cognition.

This brief description suggests that there are shared issues, subjects and activities that have the potential of generating new understanding in cross-, inter- and trans-disciplinary affiliations and collaborations. My experience in these modes of inquiry points to the importance of identifying what is shared and what is not amongst vocabulary, concepts, pedagogies and methods. Holding these confluences and diverges without resorting to strict definition, competition or judgement of right and wrong often affords greater understanding and empathy amongst individuals to shape a collective that is diverse in its outlooks, and hopefully, curious as to what it generates together because of that diversity.

**cite as:**

Preston, Julianna. 'Introduction: Unknowingly, a threshold-crossing movement,' *idea journal* 17, no.02 (2020): 08 – 12, <https://doi.org/10.37113/ij.v17i02.412>.



The breadth of the knowledge bases represented within this issue necessitated that the peer reviewer list expanded once again like the previous issue. It was in the process of identifying reviewers with appropriate expertise that the various synapses between scholarly and artistic practices became evident. It is these synapses that shape sturdy bridges between the journal's existing readership, which is predominantly academics and students in interior design, interior architecture, spatial design and architecture, and the wide range of independent scholars and practitioners, academics, and students attracted to BOK's thematic call for papers, performative lectures and exhibitions. At the risk of being reductive to the complexity and nuances in the research to follow, I suggest that the following terms and concerns are central to this issue, aptly inferred by its title, 'Co-Constructing Body-Environments': spatiality; subjectivity; phenomenology; processual and procedural practice; artistic research; critical reflection; body: experience. All of these are frequent to research and practice specific to interiors. In this issue, however, we find how these terms and concerns are situated and employed in other fields, in other ways and for other purposes.

This is healthy exercise. To stretch one's reach, literally and metaphorically is to travel the distance between the me and the you, to be willingly open to what might eventuate. Imagine shaking the hand of a stranger—a somatic experience known to register peaceful intent, respect, courage, warmth, pressure, humour, nervous energy, and so much more. This threshold-crossing movement is embodied and spatial; it draws on a multitude of small yet complex communication sparks well before verbal impulses ensue. This significant bodily gesture sets the tone for what might or could happen. Based on my understanding of the research presented in 'Co-Constructing Body-Environments,' I propose that this is a procedure in the Gins and Arakawa sense that integrates theory and practice as a hypothesis for 'questioning all possible ways to observe the body-environment in order to transform it.'<sup>01</sup> I call this as *unknowingly*—a process that takes the risk of not knowing, not being able to predict or predetermine, something akin to the spectrum of 'throwing caution to the wind' and 'sailing close to

the wind’. My use of the word ‘unknowingly’ embraces intuition where direct access to unconscious knowledge and pattern-recognition, unconscious cognition, inner sensing and insight have the ability to understand something without any need for conscious reasoning. Instinct. The word *unknowingly* also affords me to invoke the ‘unknowing’ element of this interaction—to not know, to not be aware of, to not have all the information (as if that was possible)— an acknowledgement of human humility. I borrow and adapt this facet of unknowingly from twentieth-century British writer Alan Watts:

This I don’t know, is the same thing as, I love. I let go. I don’t try to force or control. It’s the same thing as humility. If you think that you understand Brahman, you do not understand. And you have yet to be instructed further. If you know that you do not understand, then you truly understand.<sup>02</sup>

*Unknowingly* also allows me to reference ‘un’ as a tactic of learning that suspends the engrained additive model of learning. Though I could refer to many other scholarly sources to fuel this concept, here I am indebted to Canadian author Scott H. Young’s pithy advice on how to un-learn:

This is the view that what we think we know about the world is a veneer of sense-making atop a much deeper strangeness. The things we think we know, we often don’t. The ideas, philosophies and truths that guide our lives may be convenient approximations, but often the more accurate picture is a lot stranger and more interesting.<sup>03</sup>

In his encouragement to unlearn—dive into strangeness, sacrifice certainty, boldly expose oneself to randomness, mental discomfort, instability, to radically rethink that place/ your place/ our place, suspend aversions to mystery, Young’s examples from science remind us that:

Subatomic particles aren't billiard balls, but strange, complex-valued wavefunctions. Bodies aren't vital fluids and animating impulses, but trillions of cells, each more complex than any machine humans have invented. Minds aren't unified loci of consciousness, but the process of countless synapses firing in incredible patterns.<sup>04</sup>



**Figure 01:**

Meeting the horizon; A still image from *Shore Variations*, a 2018 film by Claudia Kappenberg that reimagines *Waning*, a 2016 live art performance by Julieanna Preston. <https://vimeo.com/user11308386>.

In like manner to the BOK2019 conference which was staged as a temporally infused knowledge-transfer event across several days, venues, geographies and disciplines, I too, ingested the materials submitted for this issue in this spirit of unknowingly. The process was creative, critical, intuitive, generative and reflective—all those buzz words of contemporary research—yet charged with substantial respect and curiosity for whatever unfolded, even if it went against the grain of what I had learned previously. For artists, designers, architects, musicians, and performers reading this journal issue, especially academics and students, this territory of inquiry may feel familiar to the creative experience and the increasing demands (and desires) to account for how one knows what one knows in the institutional setting. ‘Explain yourself,’ as the review or assessment criteria often states. If you are faced having to annotate your creative practice or to critically reflect on aspects that are so embedded in your making that you are unaware of them, I encourage you to look amongst the pages of this journal issue for examples of how others have grappled with that task such that the process is a space of coming to unknow and know, unknowingly.

There are a few people I would like to acknowledge before you read further. First, huge gratitude to the generosity of the peer reviewers, for the time and creative energy of guest editors Jondi Keane, Rea Dennis and Meghan Kelly (who have made the process so enjoyable and professional), for the expertise of the journal's copy editor Christina Houen and Graphic Designer Jo Bailey, and to AADR for helping to expand the journal's horizons.

Okay, readers, shake hands, consider yourself introduced, welcome into the *idea journal* house, and let's share a very scrumptious meal.

### **acknowledgements**

*I am forever grateful for what life in Aotearoa/ New Zealand brings. With roots stretching across the oceans to North America, Sweden, Wales and Croatia, I make my home between Kāpiti Island and the Tararua Ranges, and in Te Whanganui-A-Tara/ Wellington. I acknowledge the privilege that comes with being educated, employed, female and Pākehā, and the prejudices and injustices that colonialism has and continues to weigh on this land and its indigenous people. I am committed to on-going learning and practicing of Kaupapa Māori.*

### **notes**

- 01 Jondi Keane, 'An Arakawa and Gins Experimental Teaching Space; A Feasibility Study,' *INFLeXions* 6 (2012), accessed 29 October 2020, [http://www.inflexions.org/n6\\_keane.html](http://www.inflexions.org/n6_keane.html).
- 02 Alan Watts, *Creating Who You Are* (Video) (n.d.), accessed 29 October 2020, <https://vimeo.com/76888920>.
- 03 Scott H. Young, "The Art of Unlearning" (2018), accessed 29 October 2020, <https://www.scottheyoung.com/blog/2018/04/12/the-art-of-unlearning/>.
- 04 Young (2018).

# enacting bodies of knowledge

**Jondi Keane**

Deakin University

[0000-0002-6553-3313](tel:0000-0002-6553-3313)

**Rea Dennis**

Deakin University

[0000-0002-6214-3504](tel:0000-0002-6214-3504)

**Meghan Kelly**

Deakin University

[0000-0002-2839-5943](tel:0000-0002-2839-5943)

## abstract

This article discusses a range of issues that arise when bringing together researcher-practitioners around the intersection of art and science, body and environment. Although prompted by the issues raised at the second international Body of Knowledge: Art and Embodied Cognition Conference, the article addresses over-arching concerns around transfer of knowledge that are played out at conferences, through exhibitions and performance, and in publications.

The researchers of embodied cognition and arts practitioners/performers share a fascination with the way cognitive ecologies emerge to reveal the modes of thinking, feeling, moving and making that enact features of our shared environment. While theorists explore how enactive theories of cognition observe and track these dynamic changes, practitioners tend to reflect upon the changes their practice initiates. The intersections of these diverse research approaches that co-exist on common ground, highlight the need for space and air to allow tensions, blind spots, opportunities and potentials for knowledge production to become perceptible; to spark productive conversations.

This article considers the conference as an instance of enactive research in which communities of practice gather in an attempt to change encounter into exchange. In this case, the organisational structure of the conference becomes a critical design process that enacts an event-space. Consequently, if the event-space is itself a research experiment, then conferral, diversity, inclusion and cultural practices become crucial qualities of movement to observe, track and reflect upon. The activities within and beyond the conference indicate the extent to which creative research platforms alongside embodied enactive research projects must collaborate to draw out the resonances between diverse modes of acquiring knowledge and co-constructing the environment.

## cite as:

Keane, Jondi, Rea Dennis and Meghan Kelly . 'Enacting Bodies of Knowledge,' *idea journal* 17, no.02 (2020): 13-31, <https://doi.org/10.37113/ij.v17i02.407>.

## keywords:

practice-led research; enaction; embodied cognition; diversity and inclusion; interdisciplinarity

This special, guest-edited journal issue occurs at the fortuitous alignment of concerns shared by *The Body of Knowledge: Art and Embodied Cognition conference (BoK2019)*<sup>01</sup> and the *idea journal*, with its focus on spatiality and interiority. Honouring the ethos of the conference, the issue draws together eclectic, interdisciplinary, creative practice research. This introduction addresses the process of bringing these works into the journal and points to the alignments and aspirations of both the conference and the special journal issue. To that end, we address the tension that runs though, across and beyond the two modes of disseminating research: a conference and a journal.

The overarching issues include the status of practice-led research and the value it is assigned in relation to other modes of enquiry, knowledge acquisition and production.

As scholars and practitioners who draw upon numerous creative methods that involve community engagement, we, the guest editors, feel it is important to outline and address the intersection of challenges which are made evident in these two interrelated yet distinctive events. In doing so, we will make a number of claims regarding the contexts and relationships of the diverse perspectives and the cultural practices on which they draw. Through this, we aim to advance on the conference proceedings to highlight the ecosystems within which practice-led research occurs, including creative industries, academia, social, cultural, and geo-political, so that the impact of the arts becomes apparent and transparent. Using systems theorist and polymath Gregory Bateson's famous definition

of information, we might go as far as to say that 'art,' or more precisely, creative practices, is the 'difference that makes a difference.'

Bateson states:

The explanatory world of substance can invoke no differences and no ideas but only forces and impacts. And, per contra, the world of form and communication invokes no things, forces, or impacts but only differences and ideas. (*A difference which makes a difference is an idea. It is a 'bit,' a unit of information*).<sup>02</sup> [emphasis added]

In a later essay, Bateson opens this definition to all information; in 'Form, Substance, and Difference,' he states, 'The technical term 'information' may be succinctly defined as any difference which makes a difference in some later event.'<sup>03</sup> At the turn of the last century, Marcel Duchamp, painter turned conceptual artist, deftly demonstrated, by renaming and exhibiting the ready-made urinal, *Fountain* (1917): calling something 'art' imports an entire context, set of social practices, and readings that significantly alter the context of a space, object or relationship. Even the artist's signature destabilises the identity boundaries of convention, where the pseudonym 'R. Mutt' operates across several registers: designating false authorship, symbolising the status of the art object as a cross-breed mutt, and requiring the meaning of the work to be surmised by looking outside the object at the object-context relationship. Yet not all art seeks to reveal meaning. Art making and creative practice also engender inquiry and enable us to question

assumptions about meaning and what constitutes knowledges.

Art provides a threshold concept for joining and separating ideas, contexts, histories, material qualities, and varieties of experience. Hence, when art is studied through the lens of embodied cognition, it triggers a difference within an existing set of relationships. The alteration, although perhaps imperceptible, results from the maker setting into motion myriad processes—participant, viewer and community. Because art is a fluid concept that both initiates change and also designates a category of activity, its impact cannot be reduced to a single variable, but must be understood as one amongst many. In effect, art is always the indication of an ecology of practices that touches upon, entangles with, and affects many fields of activity and enquiry. Such an ecology arises from the intersection of communities of practice and diverse perspectives. As a result of its slippery and generative capacity, Art allows complex conditions and relationships to emerge which cannot be pre-stated in advance. Therefore, when invoking art to qualify a set of relationships, one must accept the risks of collective and collaborative meaning-production and of singular interior experiences of meaning. How knowledge is acquired is as important as how it operates and is used, which is precisely what is at stake when embarking on practice-led research.

Embodied practices are cultural/enculturated practices. Research on social cognition, intersubjectivity, and embodied cognition offers vital connections between research that

observes and describes versus research that participates and reflects upon the conditions with which a research project engages. One of the issues that arises when art intersects with the academy is how art attains a value as research. If, as Bateson suggests, the bit of information that art represents is an idea, or perhaps more accurately, a proposal about the use of concepts, it is our assertion that, rather than allow a concept to operate solely in its home discipline, creative practitioners deploy concepts as creative devices. Depending on one's point of view, this is either innovative and indicative of lateral thinking, or a derivative and superficial use of ideas out of context. As a result, art practice is often the subject or object of research, perhaps providing questions for further study, rather than contributing to other discourses such as philosophy, social sciences or cognitive science, which often discuss art, artworks and artists.

It is still contentious to align art with research, as art has been under-utilised as a mode of acquiring and producing knowledge. Increasingly, contemporary art and creative processes are becoming a way of understanding the impact of histories on meaning-production and working out the extent of the impact in situ. However, even the art community is divided on where knowledge sits in relation to art practice, disputing whether it resides in the form of research such as 'practice-based', 'practice-led' or 'practice as' research. These disputes arise along lines of cultural identities, education systems, and art history, playing out their biases within culture. Yet, over the past four decades,

there is a growing body of scholarship arguing that art-based research, material thinking, and embodied knowledge should be regarded as equals in the academy (Butt, Roger and Dean, Barrett and Bolt, Ingold, Kershaw and Nicholson, Pink, McNiff).<sup>04</sup> This counterbalances prominent voices such as James Elkins,<sup>05</sup> who would argue against the knowledge that art offers when considered as a research project contributing to a knowledge economy. Artist Patricia Cain addresses Elkins' scepticism of art as research in her BoK2019 keynote<sup>06</sup> and subsequent essay (included in this issue) in which she discusses her personal interaction with Elkins' critical response to her PhD and subsequent book.<sup>07</sup>

As already noted, there are many reasons why the arts have a dysfunctional relationship with historical modes of research.<sup>08</sup> What must be considered is how creative practitioner-researchers approach research and investigation—the processes, material and spatial engagements, as well as the values and metrics they deploy and the position they assign themselves in the enquiry. In contrast, philosopher Evan Thompson, in his keynote address at the *Body of Knowledge Conference* in 2016 (held at UC Irvine), understands that art plays a valuable role in knowledge production through a cognitive ecology in which 'cultural practices orchestrate cognitive capacities and thereby enact cognitive performances.'<sup>09</sup> Thompson notes that the motivation for his talk was to

draw attention to these [existing practices of mindfulness in the arts] and the need for a research collaboration

between the kind of expertise embodied in these practices and cognitive science<sup>10</sup> and emphasising that 'these practices need to be brought into the fold of cognitive science research on mindfulness practices.'<sup>11</sup>

Thompson's concluding remarks reinforce the call for multidisciplinary research collaborations:

What I am envisioning is not that they [mindfulness movement practices in the arts] just become another object of study—though that can be part of what happens—but they embody a kind of expertise; the practitioners embody a form of expertise—that is itself a form of investigation and research and that it needs to be on an equal footing with cognitive science because the tendency in our culture is to valorise and prioritise the science, and I don't think that is going to do justice to what we want to do.<sup>12</sup>

What has yet to be fully implemented is the way to recognise a common footing for art in relation to cognitive science. Thompson advocated for more transparency, greater co-operation, and for a slowing down, in order to ensure that research projects are multidisciplinary, suggesting that participants in any research project should go out of their way to identify diverse roles and perspectives, and include an ethnographer who would keep track of knowledge practices throughout the development of the research. Drawing upon Thompson's insights, we assert that



a rationale for the value of multidisciplinary research projects can be found in research on embodiment. That is, a cognitive ecology such as a research culture is a dynamic and precarious system in which attention is paid to the way any change in the system affects all the relationships in the system. A single disciplinary perspective is not adequate to address the complexity of human behaviour, perception and action, and a slowing down optimises subtle observation and durational knowledge production. Slow is critical when aiming to critique hegemonic practices, particularly at the level of the institution.<sup>13</sup> Slowing down also opens spaces for non-linguistic meaning making that is central to aesthetic experience and aesthetic knowledge production.<sup>14</sup> Pink champions visual and sensory ethnographic research, which has gained traction due to its emergence from visual and kinaesthetic artistic practices.<sup>15</sup> The imperative—not to reduce life to a series of isolated fragments—is an approach through which enactive theories of cognition align with creative arts practices. Thus, the aim is to valorise what Sheets-Johnstone<sup>16</sup> terms the moving body thinking, or as Beverly Farnell<sup>17</sup> suggests, the body as something to think from rather than to think about.

Research that involves thinking through making and making through moving and performance demands a critical engagement between, within, and around the practitioner, the creative outcome, and the context. Each configuration has a role to play in our understanding of new knowledge. Writing about research in art and design, Maarit Mäkelä emphasises the central importance of

the process in practice research, stating:

The product of making—i.e. the artefact created in Art and design practice—is conceived as having a central position in the research process. In this context, the artefact can be, for instance, a painting, a photograph, a designed object, a composition or a dance performance.<sup>18</sup>

Therefore, the *Body of Knowledge Conference* and this special issue of *idea journal* allows communities of practitioners across all fields to connect with and contribute to the field of cognitive research which has been discussed and debated internationally across the fields of art, including dance, theatre, music, fine and applied arts and design.

### **the site of spatiality: conference as an interdisciplinary practice environment**

The next significant issue to consider is spatiality, and the place and motions that set knowledges into action and orchestrate the visibility of diverse knowledge practices. Australian Aboriginal knowledge is premised on a deep connection to the land on which they live. Understood through their bodies and linking them back through their ancestors, their relationship to the land is material, cultural and spiritual.<sup>19</sup> Situating the conference at the Burwood campus of Deakin University entangled the event and the researchers and delegates who gathered within this way of knowing and invited a particular attention to the valuing of the differences within and across the way cultures conserve and enact knowledge.

In this way, the conference attempted to foreground the unique expression of the lived knowledges of Indigenous Australians through what is referred to as an Acknowledgement of Country. There are a great number of acknowledgements used in Australia with variation in length, tone and sentiment. Situated on *the land of the Wurundjeri people*, the conference gathering at Deakin University's Burwood campus acknowledged that *the present site of the Melbourne Burwood Campus is located on the land of the Wurundjeri people. They belong to these lands, have walked on them for thousands of years, and continue to care for them and nurture them.*

Performing the acknowledgement highlighted the intersection of time, place and cultural knowledges. While such actions do not erase the history of violence that is intrinsic to the Australian national identity, they do serve to recognise the entanglement of ancient knowledge and the deep connection and affect that gathering collectively can activate. The acknowledgement performs a certain set of attentions and as Ingold identifies, foregrounds culture as the origin of the forms, and nature as the provider of materials.<sup>20</sup> Performing the acknowledgement also acts to witness the way in which knowledge is a layering of events, actions, experiences, and encounters across and over time, and that knowledge is not just linked to the human condition nor to social contexts. The action engenders an affective ripple which enacts and draws attention to our collective experience as bodies. Feeling builds on this affect and accumulates as layers of knowledge

that inform practice research, which are also transformed by ongoing and repeated practice-based exploration. Such is the lived experience in art and design where affect bubbles up through our visceral perception, through what Clough terms 'the sensate body.'<sup>21</sup>

Artistic practice as research articulates the body as the form through which insights are expressed. Through movement, gesture, sensing and feeling, this non-word mode of knowing is expressed through skilled hands, bodily awareness, or the highly trained bodies that have accrued knowledge through a discipline of practice over many years. The material body offers a source of positive knowledge, a site of active change. The knowledge that accrues over time with attention to embodied somatic practice is not singular. It interacts with itself in the body and with the body in the environment. It is recognised body to body but not when it is looked for or at, so much as when it is felt, and felt for. In movement practices, this knowledge forms as a material sediment in somatic form and acts to make the world my body. Just as the feeling of morning seeps into us as we walk, such knowledge accumulates and aggregates into a personal and unique praxis that is 'arrived at through extremely high levels of creative synthesis, as well as spiritual, emotional, aesthetic, and political individuality.'<sup>22</sup> Yet, this knowledge is so often out of reach as we have become increasingly sedentary, adapted to indoor and virtual worlds and disconnected from nature and the haptic and tactile knowledges of a material relational existence. The conference

set out to interrogate this state through a focus on noticing: to follow the sun; to sit by the window, to walk outdoors within the dynamic peripatetic sessions on offer; to practise honouring the ways we know that resist linguistic translation; and to value the labour of the writer, behind which are situated the labour of the artist, the researcher and of the artist as researcher. In creating conditions to facilitate sensory experiences in this way, *The Body of Knowledge Conference 2019* interrogated the intersection of the capacity of theories of cognition to describe body-environment systems and the capacity of practice research to enact, materialise, instantiate and contextualise the potential of enactive descriptions. In this way, the conference was construed as an interdisciplinary practice environment that folded together the space of conferral, modalities of presentation and display, and the potential for further research.

### **the site of intersection: conference as an interdisciplinary practice environment**

At the heart of this discussion, and central to this journal issue, is the way in which the experience of the creative practitioner-researcher sits precisely at the intersection between descriptions provided by theories of cognition, particularly enactive theories, and experimental production of enactive systems and relationships produced by arts practice and research. In the study of embodied cognition, art can be considered as an enactment of complex affective fields in which embodied, embedded, expanded, situated, and distributed modes are more

perceptible, and therefore more accessible to be studied. Importantly, the creative practice researcher enacts these explorations in non-reductive, real time experiments. A creative-practice approach to experimentation aims to learn from the production of difference and ongoing feedback in the dynamic system of practice—that is to say, the art-life project. The art-life project might be characterised as an unwillingness to consider the concerns that are focused upon in art practice as separate from those which bear upon the ‘realisation of living’ (the subtitle of Maturana and Varela’s 1980 book *Autopoiesis and Cognition*).<sup>23</sup>

Creative practices are said to exploit perception as action through what Alva Noe calls the ‘strange tools’<sup>24</sup> of art that enact, inflect, modulate, circumvent, appropriate, and repurpose the embodied processes. When combined with observation and reflection, the knowledge acquired from participant-practitioner-researcher is of a different order and partakes in a different idea of what it means to assign value, to collectively select the features of an environment and co-construct shared meaning. For example, Shaun Gallagher’s keynote presentation at BoK2019 included a discussion of what is called ‘marking’ in dance where a person rehearses a set of movements in a dance sequence by minimising the movement range and speed.<sup>25</sup> The bodily movement prompts a muscle memory and visualisation that allow the person to further entrain the movements, sequences, spatial arrangements, and qualities of movement into the body-person-environment. When a dance piece is ‘marked’ with other dancers, the activity

serves to align and attune movements across bodies collectively projected into a performance space. In these circumstances, the dancers' movements are more than the limited gestures they perform and call to the foreground a huge amount of knowledge that, in its squeezed and reduced form, is ready to unpack and expand into full-scale, full-speed performance mode. These ideas were deliberately applied to the conference through the way we integrated activities to foster engagement with embodied knowledges.

The BoK2019 event space was designed as a meditation on conferral. The aims of the conference program structure, in terms of the spatial, social, and enactive field being crafted for conferral, exchange, learning, and performing and reperforming the knowledge being imparted, were to petition and repetition the attention of attendees to become participants and not lapse back into a passive observer mode. This was achieved by emphasising that everything—every event, session and activity—was a mode of conversation. The keynotes were devised as conversations between two presenters which opened out to a conversation with delegates. These interactions provided opportunities to position and offer perspectives that would then be engaged by a keynote with knowledge in another fields. This innovation acted as an enabling constraint, a term used in cognitive psychology and theories of cognitive development and epigenesis to describe how any component in a system is not independent of that system.<sup>26</sup> More recently the notion of enabling constraints has been deployed to describe practice-led research or research

creation, specifically, the way concepts become embodied guides for perception and action, thinking and feeling to move from 'work to world.'<sup>27</sup>

Great care was taken in pairing the keynote and presenter and introducing them to each other well in advance of the conference, an action that allowed them time to talk and plot out a set of common issues and concerns that they could develop across their areas of interest. Notable sessions, such as Margaret Wertheim and Annalu Waller, were instances where artist, mathematician, and disability designer came together to discuss the materialisation of ideas.<sup>28</sup> As organisers of the event, we deliberately opted to 'converse' rather than to 'confer' as a way to counteract the tendency to have already-agreed upon sets of values and assumptions that underwrite and drive the event. The challenge was to find ways to seed every occasion for potential conversations.

The key points for discussion that can be identified at the intersection of academic research conferences and publication in peer-reviewed journals is the ripple effect that alternative modes of knowledge acquisition and production have on communities of practice. One issue in particular stands out in need of discussion: the way in which a practitioner, having built up an embodied practice that activates alternative, material, experiential and neuro-diverse modes of enactment, deals with the 'linguaging' of their practice. When knowledge is acquired through doing, making, moving, or bringing one thing into relation with another, the impact does

not necessarily occur in or through language. It is possible to put experiences, insights, sensations, and feelings, in the midst of their unfolding into words. But the more intensely an experience of understanding is linked to a mode of knowing, the more difficult that knowledge is to extract from that embodied process. Everyone has a different connection to language and for some it can feel like translation rather than correspondence; that is, language can approximate or resemble things it represents but rarely provides an equivalence. This feeling is often ineffable and may be the reason why a person is drawn to a particular practice in the first place. For artists and performers who become researchers, the onus is on them to articulate their mode of knowledge acquisition and production in a way that does not diminish, translate, stand in for, or explain the knowledge, but draws upon the multimodal capacity to transfer, align and coordinate modes of existence and modes of thought-feeling-action.

The challenging nature of conferral has to do with changes to the expectations of standardisation and consensus. Following the conferral, the expectations of a journal, the reading of the article, its positioning in the ongoing narrative of creative practice, establishes another set of standards for publication. To contest those boundaries is to question the academy, and therefore, we commonly stay wedded to the framework set by Eurocentric, colonised notions of research. We feel that such considerations represent an area of debate and tension that consumes an enormous amount of labour—physical, intellectual and emotional—for the researcher

when confronting perceptions of knowledge produced within and through practice. In this way, the publication of the selected papers for *idea journal* also touches on the political dimension that creative practice makes perceptible. With so much rhetoric around the value of innovation, creativity, cultural knowledge, diversity, and disability inclusion, at times there seems to be very little patience for things that are not said in a particular way. It might be noted that the very act of publishing (writing publicly) inserts a risk of undoing the specific spatiality and materiality of creative practice as well as the aims of the conferral as an event that requires ongoing discussion. If poetry is the precision of thought and science is a search for invariance, then the arts can be the *production of difference* necessary and sufficient for the opening out of research into multi-platform investigations that acknowledge different modes of knowledge.

In each of the creative arts disciplines, practitioners test the boundaries of academic narratives that frame their work. If there is to be a resistance mounted to counteract the standardisation of research narratives and the perspectives that inform the learned voices that are determining such standards, then resistance must find another path. Research pathways must reframe or re-position 'critique' to lead from legitimation practices of distancing and othering to generative practices that are less certain of their position, more tentative and ethical when encountering other modalities of knowledge. Myles Russell-Cook states 'if we are to dismantle hegemonic structures of inequity and rebuild and collaborate equally and respectfully, we need

to formulate new tools, paradigms and ways of thinking.<sup>29</sup>

As an example, the International Council of Graphic Design, now identified as the International Council of Design (Ico-D) played a major role in defining Latin American design in 1980. When analysing the role of Ico-grada, design scholar Dora Dias<sup>30</sup> referred to comments made by a dominant voice in design history, former Ico-grada president Frascara, who stated that Latin American design has its own visual vocabulary, but with a standard which is far lower than other countries. Although the statement was made years ago, it remains to be seen how the framework that led to that statement has changed in the last forty years. Resting on this point alone, and as Dias explains, comments such as these place modernity and signs of progress as imposed value systems in the recognition of economic and political survival and quality design outcomes. This evaluation of standards leads to an imbalance, favouring ideas of European superiority. Lost in this are the traits of nationality and unique local practices, and the exploration and celebration of creative outcomes. How best to tell the story of research is uncertain; productive tensions arise from the divergent voices and inconsistent overlaps between inquiry and experience, conceptual frameworks, and perceptual insights. The friction between approaches produces sparks that are evident in the diverse ways that creative practitioners are able to self-determine research outcomes versus the professional standards and expectations of the creative community. In particular, there

are impacts to the processes used to weigh, compare and assess the different modalities of and approaches to presenting, enacting, and representing knowledge. In this case, the crossover from conference to journal occurs through an embracing of first- and third-person processes, with an emphasis on spatial intelligence, social production of space, the experiences of space/place/site, and the co-construction of the body-environment. The reconfiguring of the relationship of intersubjectivity, social cognition, and interiority is a common feature to both the direction of *idea journal* and the impetus for creative practitioners to seek out affinities with studies of perception and action and theories of cognition.

Understanding the value of productive tension, the 2019 BOK Conference can be considered a success in challenging existing conference formats and disrupting conference procedures. The 2019 BOK Conference was created to open ideas and demonstrate a different way of engaging with knowledge and to examine embodied practice. A year ago, in June 2019, when the conference was held at Deakin Burwood campus in Melbourne, delegates included twenty-five International visitors (NZ, Sri Lanka, Singapore, Malta, Austria, Denmark, Japan, UK, USA, CA); 20 from across Australia (Sydney, Newcastle, Adelaide, TAS, Perth; and thirty Melbournians (Deakin, RMIT, Latrobe, UoM, Monash) with declared affiliations and research interests in arts, performance and design, health, diversity, neurodiversity, disability and inclusion, cognitive science, neuroscience, social science and humanities,

institute of frontier materials, and architecture. The conference program was structured in terms of the spatial, social and enactive fields being crafted for conferral, exchange, learning, and performing and reperforming the knowledge being imparted. This allowed for petitioning and re-petitioning the attention of the attendees to become participants and not lapse back into observer mode. The presentation modes supported this aim and the exhibition aligned with the conference reconfigured the space into one of process.

The transition of the production of knowledge from a conference format to a journal challenges the design of the information again. Although the reviewers to this special edition of *idea journal* have attempted not to be bound by the academy frameworks, the reading of the papers by multiple reviewers and the process of editing for consistency resulted in us all questioning the principles under which we agreed to challenge the conferral and journal expectations. We were conscious of our biases and did not want to judge the acceptance of papers to the journal with preconceived ideas, so we focused on handling complex approaches to acquiring, transferring and connecting research practices. Examining how this point of publication was reached, we looked for well-crafted and designed thinking systems that generated effective engagement and transferral of knowledge while enabling readers to understand the content presented. The editors have followed many standard expectations of how this content will be framed, aiming for ease of understanding by observing the values of clarity, precision of

thought, and accessibility that are required for publication of research. In doing so, we attempted to celebrate the productive tensions we have experienced by providing an outcome that translates the embodied experience of the conference to a journal format.

Modes of navigation, both online and offline, augmented and interactive, suggest the vast differences between the experience of sites. At the conference delegates moved between X-building, where the keynotes were delivered, to P-building, where parallel sessions were held, to Gardener's Creek, where a peripatetic session was held, to HD building, where food and drink were available. The online space of a journal has a direct transportation from one world to another. Both are spatial, embodied and embedded in world-making activities.

### **the embedded and nested activities**

When we set out to establish the parameters of the 2019 conference, we foregrounded framing principles such as the *production of difference, interdisciplinary investigations, the opening out of research scope, dynamics of change, real time experimentation, non-linguistic forms of knowing, and variations to ways in which we might listen to and perceive new knowledge, respond, and give feedback.* Fewer parallel sessions meant that delegates were pulled in fewer directions and could attend scheduled activities in adjacent studio spaces (theatre dance studio, visual art space and lecture room, as well as outdoor areas on a green suburban campus in Eastern Melbourne). This approach facilitated access for everyone's interests and provided a platform for post-graduate students to flourish.

The layered encounter afforded by this arrangement was augmented by two bespoke conference experiences: the conference exhibition, *Thinking Room for Enacting Knowledges*, and a feedback research project entitled *Audit Traces*.<sup>31</sup> The *Audit Traces* project was composed of a group of researchers who provided a process through which reflective feedback and research knowledges could be accumulated across the conference sessions. This carefully curated yet spontaneous ethnographic process operated in tandem with the *Bodies of Knowledge* exhibition, the *Thinking Room for Enacting Knowledges*, which comprised works that are indicative of an embodied process of thinking-feeling-knowing through making, rather than works that make claims about being the result of an engagement with embodied cognition. The *Thinking Room for Enacting Knowledges* offered participants an enhanced experience of aspects of practice that may not normally be visible amongst the dominance of outcome-based works. *Thinking Room for Enacting Knowledges* was conceived as a spatial display of access, perceptibility, progression, and configurability.

Because the production of difference is crucial to the relationship of art to embodied cognition, one of the starting points and inspiration for conference activities was Patricia Cain's previous *Thinking Room* installations. The exhibiting artists in the conference exhibition gave us a glimpse—from varying starting points that include painting, drawing, architecture, dance, textile, spatial practices, and writing practices, as well as interviews and working notes—of

how 'making' holds a network of relationships differently. Each project in the exhibition was the conversation starter to a longer discussion and the proliferation of diversity.

With an intensified intersection of practices at the fore of our attention, the conference organisers put in place a structure for the *conference as event-space* that adhered to recognisable structures to a degree, but that also emphasised collective construction. Because the conference was designed to have an exhibition that directly addressed the dispositions, tendencies and diversity of approaches to practice, it provided both a celebration of process-oriented research (vs outcomes) and a prompt for research discussion around diversity and neurodiversity, cultural knowledge, and knowledge exchange. This ethos was intensified in the *Audit Traces* project, which was embedded within the conference as a redoubled meta-process. The audit tracers engaged with presentation and conference delegates to specifically capture moments of knowledge transfer (or impediments to transfer) and provide feedback to the delegates at the last keynote session of the conference. The presentation modes they observed and captured included: paper presentation, performative presentations, and peripatetic presentations.

The bespoke activities, *Audit Traces* project, and the *Thinking Room for Enacting Knowledges* exhibition, demonstrated the recursive feedback loop that is integral to reflective practice and practice-led enquiries in the Arts; that is to say, these activities



performed the ideas the way we were wanting to articulate and share them. Hence, the notion of event-spaces and their changing parameters go hand-in-hand with the ways in which contemporary modes of conferral have changed. The push back against 'splaining' and the authoritative modes of the experts on specific areas of study, gave way to intersecting practice and perspectives. This decision to focus on knowledge practices allowed dialogues to emerge that explore the limits of disciplinary knowledge by tracking and tracing transfers, moments and manifestations of knowledge that often go unnoticed.

On reflection, the spatial design of the conference, the relationship of the types of activity, and the event-spaces enabled the two research eddies to swell and flow with the currents of interest and attention, and spatially punctuate the intensification and recursive aspects by promoting sharing, conferring, and transferring knowledge through the highly attuned embodied approaches of the conference delegates. In a world rife with practices, every mode of engagement has a texture, dimensionality and duration. Its persistence or changeability is subject to infinitesimal initiating and gross blunt forces of the human-non-human condition.

### **feedback–feedforward**

We are writing this introduction from Melbourne during stage 4 restrictions to reduce the community infection rate of Covid-19. New Zealand had just avoided a second wave outbreak after months of low or no new recorded cases. That all

seems long ago and far away. The pandemic has heightened our embodied awareness of everyday interactions and brought our cognitive intra-actions to the surface, especially how we link and separate from our environment, our neighbours, communities, non-human companions and material life. Very much like turning a shirt inside out, our experience of lockdown is often one of introspection and turning inward in order to turn out, inside-out, and towards others. The last year has made our life into laboratories for noticing, and modulating the links we deem to be of, near, or external to ourselves. The lively conversations and tensions, clashes and affinities—taken for granted in conference settings—have evaporated and moved to long term memory.

One thing that has persisted from the conference and was highlighted by the keynotes is a notion of the precarity of our situation socially, culturally and politically. The ten keynotes came from (or presented online keynotes from) USA, EU, UK and AUS. All of the keynote presenters entered into dialogue with their paired presenter to enliven the key note conversations and parse out the intersection of their perspectives and approaches and the way in which knowledge moves, ebbs and flows from one context to another one timeframe to another.<sup>32</sup>

Precarity as cultural value and the role of precariousness in the investigation of the embodied condition of self-organisation have overlaps too strong to ignore. Evan Thompson elaborates by stating: 'We need an additional condition to make operational

closure non-trivial, and this condition is that of *precariousness*'; he goes on to say:

A precarious process is such that, whatever the complex configuration of enabling conditions, if the dependencies on the operationally closed network are removed, the process necessarily stops. In other words, it's not possible for a precarious process in an operationally closed network to exist on its own in the circumstances created by the absence of the network.<sup>33</sup>

The precarity of maintaining life at the cellular level exists across every scale of action and is not unlike the struggle of self-individuating or holding communities together. As researchers, we must be open and closed at the same time and, as practitioners, we must re-enter the varying events and extents through which different modes of existence persist.

All the activities at the conference emphasised process in order to demonstrate ways of producing real time feedback loops. These activities were focused on amplifying, accentuating, attenuating and holding up the ways in which knowledge is offered and transferred. The conference was infused with a notion that the sharing and transfer of knowledge is not separate from the enactments of knowledge, and ways of thinking are realised in papers, performances, installations, and participatory events. In an effort to initiate modest and practical ways in which to enact and transfer knowledge and encourage collective attunement, the submissions for this special issue were

selected because they perform the ideas under investigation and foreground their discipline lens while reflecting upon the boundary limits of their own investigations.

Through these approaches, connections, intersections and interventions, we suggest that the western notion of knowledge should be replaced by the word 'learning' as a much more accurate description of how research platforms operate and what practice approaches offer: constant and ongoing processes of leaning. The incessant aspect of practice is also what sustains practitioners to continue working and attracts other people to generate momentum and new questions.

It is useful to consider the several questions that arose from the juxtaposition of the diverse and complex approaches to practice-led research. The first question focuses on how cognition, when considered as awareness distributed throughout the body and into the environment, contributes to and affects other enquiries and discourses differently when observed rather than reported on from within the field which is the focus of the study. The second question is, can or should a person investigating cognition through the lens of enaction consider themselves outside the sphere of the investigation? If the answer is no, then the material and embodied practices, individual and collective, of which the investigation consists, become the creative variables in the organisation and implementation of modes of enquiry. The next question arises from the previous ones and concerns how one establishes and rationalises the boundaries between life and

study, and this relationship with the categories and boundary limits of an investigation. For practice-led researchers, the setting of boundaries is a necessary fiction and intolerable conclusion, given the need to move from place to place, from one idea to another. The movement and the quality of movement and navigation across 'modes of sensing and scales of actions'<sup>34</sup> determine what impinges upon research.

From conception to conference closure, and now through to preparing the articles for this issue, we have enacted our knowledges of curation, ritual gatherings, and dramaturgy. While the articles offer insights into individual artists' processes and their unique written voice, together they embody the shared experience of the conference and the collective efforts of the conference and editorial teams. We have called upon theories of cognition as a way to understand how each modality of engagement—art, science, research and daily life—requires attention to every nuanced connection and relationship. In so doing, as we gathered these knowledges up, we recognised the way these shifted when considered as a spatial configuration and indicated the way we might hold and co-construct a shared environment.

## acknowledgements

We would like to thank the contributors to the BOK2019 conference and the authors of this special issue. We would especially like to thank Professor Julieanna Preston, the chief editor of *idea journal*, who worked tirelessly with the guest editors to bring this special issue to fruition. We thank the artists and authors whose input have been invigorating and challenging, adding to the discourse of embodied practice in ways that are both transformative and progressive. We look forward to continuing this research with each of the participants who have added great knowledge to this field of investigation.

## authors' biographies

*Jondi Keane* is an arts practitioner, critical thinker and Associate Professor of Art and Performance at Deakin University in Melbourne, Australia. For more than three decades he has exhibited, performed and collaborated on projects in the USA, UK, Europe and Australia. His research interests include contemporary art practice and theory, theories of cognition, and experimental art and architecture. His creative research consists of studio-based experiments, video and performative-installations. He publishes widely on art-science, practice-led research, theories of cognition, and the ways in which creative practices contribute to interdisciplinary inquiries that address collective concerns. Recently he has been an collaborating artist on *Venetian Blind* at the European Culture Center (Venice 2019), co-authored *Creative Measures of the Anthropocene: Art, Mobility and Participatory Geography* (Palgrave 2019) and convened and co-organised the *Body of Knowledge: Art and Embodied Cognition Conference* (Deakin 2019).

*Rea Dennis* is a performance practitioner and scholar based in the School of Communication and Creative Arts, Deakin University, where she is Head of Drama and leads the practice-as-research higher degree program. She produces theatre and performance that is embodied and socially engaged and designs interdisciplinary provocations as live art, material, and multimedia, and participatory installations to interrogate questions of embodied knowing, perception and affect in identity,

and to explore narratives of sustainability, nature and felt experience. Rea has published on refugee performance, actor training and telematic performance. Her performance and multimedia works have been presented in UK, USA, Taiwan, UK, Brazil, New Zealand and Australia.

Associate Professor *Meghan Kelly* is a visual communication designer and academic, serving as the Associate Dean (Teaching and Learning) in the Faculty of Arts and Education and senior lecturer in Visual Communication Design at Deakin University, Melbourne, Australia. Her research interests are in exploring issues surrounding identity creation and representation in a cross-cultural context, and the process to achieve respectful, culturally owned outcomes in professional design practice. Kelly is co-author of the Australian Indigenous Design Charter (winner of the Premier Design Award (Design Strategy) and Premier Design Award of the Year 2018), the International Indigenous Design Charter (winner of the Good Design Indigenous Designer Award 2018), and the book publication, *Museum Development and Cultural Representation: Developing the Kelabit Highlands Community Museum* (2018).

## notes

- 01 *Body of Knowledge: Art and Embodied Cognition 2019 Conference*, Deakin University, (27-29 June, 2019), accessed 11 October 2020, <https://blogs.deakin.edu.au/bok2019/>.
- 02 Gregory Bateson, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology* (Aylesbury, UK: International Textbook Company Ltd, Chandler Publishing Company, 1972), 271-2.
- 03 Bateson, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*, 381.
- 04 See, for example: Estelle Barrett and Barbara Bolt, *Practice as Research: Approaches to Creative Arts Enquiry* (London: I.B. Taurus, 2007); D. Butt, *Artistic Research in the Future Academy* (Bristol: Intellect, 2017); Tim Ingold, *Making: Anthropology, Archaeology, Art, and Architecture* (London: Routledge 2013); Baz Kershaw and Helen Nicholson, *Research Methods in Theatre and Performance* (Edinburgh: Edinburgh University Press, 2011); Shaun McNiff, *Art as Research: Opportunities and Challenges* (Bristol: Intellect, 2013); Sarah Pink, *Doing Sensory Ethnography* (London: Sage Publications, 2009); Hazel Smith and Roger Dean, *Practice-Led Research: Research-Led Practice in the Creative Arts* (Edinburgh: Edinburgh University Press, 2009).
- 05 On James Elkins' view regarding creative arts PhD and the value of art at research, see, for example: James Elkins, *Why Art Cannot Be Taught and 2009 Artist with PhDs: on the New Doctoral Degree in Studio Art* (Washington, DC: New Academia Publishing/The Spring, 2009).
- 06 Patricia Cain, keynote at *Body of Knowledge: Art and Embodied Cognition 2019 Conference*, Deakin University, (27-29 June 2019), accessed 11 October 2020, <https://blogs.deakin.edu.au/bok2019/keynotes/>.
- 07 Patricia Cain, *Drawing: The Enactive Evolutions of the Practitioner* (Bristol UK and Chicago: Intellect and University of Chicago Press, 2010).
- 08 For example: the move from teachers' colleges to universities in Australia began in 1991-93; e.g. Queensland Conservatory of Music joined Griffith University in 1991 and up until 2010 in UK, when the Royal Welsh College of Music and Drama merged with the University of South Wales.
- 09 Evan Thompson, keynote presentation at *Body of Knowledge: Embodied Cognition and the Arts*, (8-11 December, 2016), accessed 11 October 2020, <https://sites.uci.edu/bok2016/> and on YouTube <https://youtu.be/rG3daqNH700>.
- 10 Thompson, timecode on video 1:13.
- 11 Thompson, timecode on video 2:38.
- 12 Thompson, timecode on video 47:27.
- 13 Michelle Boulous Walker, *Slow Philosophy: Reading Against the Institution* (London: Bloomsbury, 2016).
- 14 Mark Johnson, *The Aesthetics of Meaning and Thought: The Bodily Roots of Philosophy, Science, Morality, and Art* (Chicago: The University of Chicago Press, 2018).
- 15 Sarah Pink, *Doing Sensory Ethnography* (London: Sage Publications, 2009).
- 16 Maxine Sheets-Johnstone, 'Consciousness. A Natural history,' *Journal of Consciousness Studies* 5, no. 3 (1998): 260-294.
- 17 Beverley Farnell, 'Moving Bodies, Acting Selves,' *Annual Review of Anthropology* 28 (1999): 341-373.
- 18 Maritt Mäkelä, 'Knowing Through Making: The Role of the Artefact in Practice-led Research,' *Know Techn Pol* 20 (2007): 157-158, accessed 2 June 2020, <https://doi.org/10.1007/s12130-007-9028-2>.
- 19 Tyson Yunkaporta, *Sand Talk: How Indigenous Thinking can Save the World* (Melbourne: Text Publishing, 2019).
- 20 Tim Ingold, *Making: Anthropology, Archaeology, Art and Architecture* (London Routledge, 2011).
- 21 Patricia T. Clough, 'The Affective Turn: Political Economy, Biomedicine, and Bodies,' in *The Affect Theory Reader*, eds. M. Gregg & G. J. Seigworth (Durham, NC: Duke University Press 2010), 209.
- 22 A. Williamson, 'Formative support and connection: somatic movement dance education in community and client practice,' *Journal of Dance and Somatic Practices* 1, no. 1, (2009): 30, accessed 21 October 2020, <http://doi.org/10.1386/jdsp.1.1.29.1>.
- 23 Humberto Maturana and Francisco Varela, *Autopoiesis and Cognition: The Realisation of Living* (Dordrecht: D Reidel, 1980).
- 24 See: Alva Noe, *Perception in Action* (Cambridge, MA: MIT Press, 2004); Alva Noe, *Strange Tools: Art and Human Nature* (New York: Farrar, Strauss and Giroux, 2015).
- 25 Shaun Gallagher, keynote at *Body of Knowledge: Art and Embodied Cognition 2019 Conference*, Deakin University, (27-29 June, 2019), accessed 11 October 2020, <https://blogs.deakin.edu.au/bok2019/keynotes/>.
- 26 See, for example: R. Gelman and E. M. Williams, 'Enabling constraints for cognitive development and Learning: Domain Specificity and Epigenesis,' in *Handbook of Child Psychology: Vol. 2. Cognition, Perception, and Language*, ed. W. Damon (John Wiley & Sons, 1998), 575-630; Alicia Juarrero, 'The self-organisation of intention action,' in *Superior Review Internationale de Philosophie Journal* 228, no. 2 (2004): 228.
- 27 Erin Manning, 'Creative Propositions for Thought in Motion,' *Inflexions Journal* 1, no. 1 (2008): 1111, accessed 21 October 2020, [www.inflexions.org](http://www.inflexions.org).
- 28 Margaret Wertheim and Annalu Waller, keynote at *Body of Knowledge: Art and Embodied Cognition 2019 Conference*, Deakin University, (27-29 June, 2019), accessed 11 October 2020, <https://blogs.deakin.edu.au/bok2019/keynotes/>.
- 29 Myles Russell-Cook, 'NGC Triennial,' ed. National Gallery of Victoria (Victoria: National Gallery of Victoria, 2017), 207.
- 30 Dora Dias, 'International Design Organizations and the Study of Transnational Interactions: the Case of Icogradalatinomérica80,' *Journal of Design History* 32, no. 2 (2019): 188-206, accessed 21 October 2020, <https://doi.org/10.1093/jdh/epy038>.
- 31 See, for example; Thinking Rooms for Enacting Knowledge Exhibition at *Body of Knowledge Conference 2019* <https://blogs.deakin.edu.au/bok2019/features/> and Audit Traces project at *Body of Knowledge Conference 2019*, <https://blogs.deakin.edu.au/bok2019/features/>.
- 32 See keynote page on conference website, *Body of Knowledge: Art and Embodied Cognition 2019 Conference*, Deakin University, (27-29 June, 2019), accessed 11 October 2020, <https://blogs.deakin.edu.au/bok2019/keynotes/>.

- 33 Evan Thompson 'The Enactive Approach' on BrainsBlog/philsohyofbrains.com, accessed 10 June 2019, <https://philosophyofbrains.com/2017/01/27/the-enactive-approach.aspx>; Sections take from Ezequiel Di Paolo and Evan Thompson, "The Enactive Approach," in *The Routledge Handbook of Embodied Cognition*, ed. Lawrence Shapiro (London: Routledge Press, 2014), 72. (forthcoming).
- 34 Madeline Gins and Shusaku Arakawa, *Architectural Body* (Tuscaloosa: University of Alabama Press, 2002), 58, 62.

# how moving is sometimes thinking

**Shaun Gallagher**

University of Memphis (USA)

University of Wollongong (AU)

[0000-0002-3147-9929](tel:0000-0002-3147-9929)

## abstract

I argue that different types of movement—gesture, marking, blocking, dancing, and whole-body engagements—can contribute to (or scaffold, or enable) thinking or can even constitute thinking in various forms of problem solving, memory, and reasoning ability. But I also argue that not all movement is thinking; specifically, resisting the threat of pan-narrativism, movement does not constitute narrative, although narrative reflects the structure of action.

## cite as:

Gallagher, Shaun. 'How Moving is Sometimes Thinking,' *idea journal* 17, no. 02 (2020): 58–68, <https://doi.org/10.37113/ij.v17i02.386>.

## keywords:

gesture, marking, blocking, dance, thinking



## introduction

In this article, I consider different types of movement that either contribute to thinking or that constitute a form of thinking. Obvious candidates include gesture and sign language, which have been considered instances of extended mind<sup>01</sup>. I'll also argue that in some epistemic situations, whole-body movement (e.g., running and jumping) can scaffold learning and problem solving. There are also different forms of movement connected with the performing arts of dancing and theatrical acting that are clearly forms of thinking. These include the practise of 'marking,' where abbreviated body and/or hand movements used in rehearsals are a form of thinking through a choreographed performance. Also, another kind of movement that goes along with the theatrical conception of 'blocking' in the rehearsal and performance of on-stage acting fits this category. Finally, a number of philosophers have argued that dancing itself can be considered a form of thinking—specifically, a form of exploring a world of affordances.<sup>02</sup>

I conclude, however, by arguing that there are certain limits to this idea, and that not all movement is thinking. Specifically, there is some ambiguity about how narrative is connected with movement. I argue for some subtle distinctions between movement and narrative thinking. Although a subject's movement may allow them to find a new way to think about their life circumstances, that movement per se is not necessarily a form of narrative.

## moving that constitutes thinking: some examples

### Gestures

Susan Goldin-Meadow et al., in a set of well-known experiments on the role of gestures in math, demonstrate that gesture doesn't simply scaffold cognition or 'lighten the cognitive load' (as Goldin-Meadow herself suggests).<sup>03</sup> Rather, gesture contributes to the constitution of mathematical reasoning. David McNeill argues that gesture is part of language and (as Merleau-Ponty put it), language (speech) accomplishes thought.<sup>04</sup> At the temporal point where gesture couples with utterance, which McNeill calls the 'growth-point,' gesture is shown to anticipate the utterance. The gesture starts just prior to the relevant speech-act. In this respect, gesture, as a form of expressive movement, is not the expression of a pre-formed thought; it is integrated with the movement of speech in a way that initiates extra-verbal (visual and motoric) meaning. It has been experimentally shown that in some cases gesture outruns verbal report, contradicting it, but pre-figuring what the speaker ultimately says. Accordingly, gesture is a form of cognition, not just a means of communication.<sup>05</sup> This is consistent with both Andy Clark's concept of the extended mind and with enactivist conceptions of sense-making.<sup>06</sup>

### Full-body enactive engagement

Just as gesture helps to constitute mathematical reasoning, whole-body, situated movement can contribute to the learning of scientific reasoning, as evidenced in experiments using simulated environments. Rob Lindgren led a team of researchers to design a

simulated space environment where middle-school children could interact with virtual planetary bodies. The children controlled the movements (of a meteor) using their own bodily movements—running and jumping.<sup>07</sup> The project, called MEteor (Metaphor-based Learning of Physics Concepts Through Whole-body Interaction in a Mixed Reality Science Center Program), involved more than a metaphorical identification with the meteor. The MEteor simulation used wall- and floor-projected dynamic imagery to create a realistic and immersive environment of planetary astronomy (including planets with gravitational properties). For example, children interacted with MEteor using their bodily movement to launch a meteor with a certain velocity (Figure 01). They then predicted where it would move based on the presence of planets and other associated forces. Children were able to build their understandings around the movements of their own bodies, supported by external visualisations built into the environment in a way that scaffolded learning.

This simulation was used in controlled studies of 312 middle school students that tested two conditions:<sup>08</sup>

01. Weak embodiment condition: students used a desktop version of MEteor controlled by hand/mouse movements;
02. Strong embodiment condition: students engaged in full-body/full-immersion mode with the simulation—entering into the projected simulation, and moving around in it by running, jumping, etc.

The strong embodiment condition resulted in better understanding of astronomy concepts, demonstrated by the production of more dynamic diagrams, less reliance on surface/background features of the simulation, improved scientific reasoning on tests, and dispositional learning effects.<sup>09</sup>



**Figure 01:** A participant enacting an asteroid trajectory in MEteor. From Gallagher and Lindgren, 'Enactive metaphors,' 2015.

## Marking

Marking is a form of abbreviated movement or gesturing used in dance rehearsal. In its most abbreviated form, it involves only hand gestures that constitute a kind of imagining of the performance. 'When marking, the dancer often does not leave the floor, and may even substitute hand gestures for movements. One common example is using a finger rotation to represent a turn while not actually turning the whole body.'<sup>10</sup>

Marking improves memory, performance technique and timing, more so than does full-out dance practise, or 'in the head' simulation without explicit movement.<sup>11</sup> Edward Warburton and David Kirsch think of marking as movement in the abstract. But marking is not entirely abstract, since the gestures meet constraints of the physical environment—one imagines the dance, not in thin air, but anchored (staged) in specific contexts that define specific affordances. This is clear if we consider another technique, one that is also used in theatrical acting; namely, blocking.

## Blocking

Blocking is a practise started by Sir William Gilbert (of Gilbert and Sullivan) to facilitate planning and rehearsal. He used scale models of the stage and blocks to represent actors. In contemporary practise, blocking includes the design of the performance space, the placing and movement of objects or props, and especially the positioning of actors for a particular scene. Its major function is to ensure that things and actors are positioned properly *from the audience's perspective* so they can see what's going on. *From the*

*director's perspective*, blocking can affect the specific meaning of a scene. *From the actor's perspective*, blocking not only puts the actors in the right place at the right time, it facilitates the acting process, and scaffolds the actor's cognitive and pragmatic performance.<sup>12</sup> Specifically, it facilitates the memorisation of lines. Being put in the right place at the right time means that she is put in front of another person, or next to a significant object, or within reaching distance of a particular prop, etc. This lets her know what needs to be done and what needs to be said then and there.

Blocking also includes normative structure: there are directions/rules, that can be followed or broken in ways that allow improvisation in performance. Thus, blocking is continuous with and supports activities of planning and imaginative rehearsal. It constrains movement, imposing a type of syntax that constitutes meaning on stage. It's an arranging or re-arranging of affordances with a particular goal in mind. In the kind of marking that a dancer might do in rehearsal, the blocking arrangements will be doing some of the work, grounding intelligent movement in a specific situation, and defining the affordances that will guide the motoric and affective processes involved in performance. In the extended mind view, much like gesture, the movement accomplishes thought, and taking up of positions in blocking is just a process of remembering one's lines.

One can generalise these processes of marking and blocking. 'All the world's a stage,' as Shakespeare tells us, and the architectural structures, spatial arrangements,

and normative structures of everyday or specialised practises and institutions operate like blocking to make us move and make us think in certain ways. In everyday life, things are 'staged' to get us to act and to think in a specific way. Consider, for example, the arrangements of museums, classrooms, supermarkets, courtrooms, and so forth.

### Dance

Perhaps with the concepts of marking and blocking, it may be easier to see why some dancers and dance theorists claim that dancing itself can be a form of thinking. Maxine Sheets-Johnstone calls it a form of 'exploring the world.'<sup>13</sup> Michelle Merritt argues that the dancer does not think first, and then move, but that 'Movement just is thought, and thought, in the case of improvisational dance, consists in the movement.'<sup>14</sup> Movement in this regard is a form of sense-making.

Numerous studies suggest that 'dance enables ... embodied thinking, playful, imaginative problem solving and aesthetic decision making.'<sup>15</sup> One way to account for this is to think of dance (especially improvised dance) as a form of affordance exploration.<sup>16</sup> Dance allows us to experiment with affordances and bodily possibilities—it offers new possibilities for action by heightening kinaesthetic, proprioceptive, haptic, auditory, and other forms of perception. It trains attention towards the environment, towards the body, and towards others. This may help to explain what it means to claim that improvisational dance is an active exploration of one's own possibilities within the environment.

[Dance movement] is dynamic, ever-shifting, and responsive to context. This dynamism—because it is so intelligent in its responsiveness—seems to require some sort of agent to whom the movement means something. In other words, it would seem wrong to insist that the movement is nonconscious or merely a biological maintaining of the organism below the conscious radar. The movement means something to the persons enacting it.<sup>17</sup>

The dancer actively creates meaning in shape, form, and force, which involves, simultaneously, perceiving and investigating those shapes, forms, and forces. Improvisation requires engagement with affordances offered by the music, the environment, and the ever-changing form of one's own body.

### not all movement is thinking

We should not move too quickly. We should not think that all movement is thinking. We can understand narrative to be a reflective form of thinking (Peter Goldie calls it 'narrative thinking'<sup>18</sup>)—a thinking about events and actions, and about other people and ourselves, involving a kind of self-reflection. Some theorists have made strong claims that bodily movement is itself a kind of narrative, and therefore a kind of thinking or cognition.

For example, in the area of body psychotherapy, the idea that bodily movement generates narrative leads Christine Caldwell to define such movements as 'nonverbal narratives ... the body telling its stories on its own nonlinear and nonverbal terms.'<sup>19</sup>

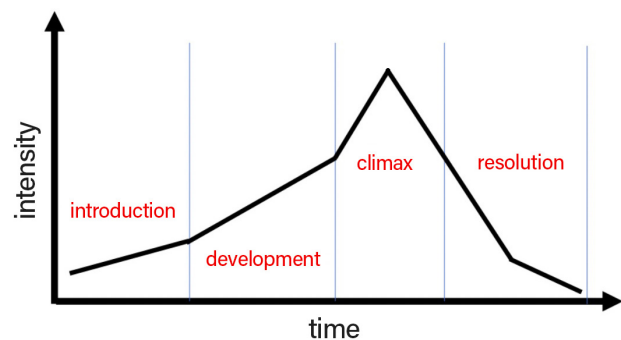
She explains, 'conscious body movements generate a fluid, nonverbal narration of self and identity no less important than the verbal stories we may tell.'<sup>20</sup> Richard Erskine describes therapy as 'focusing on the body and the unconscious stories requiring resolution.'<sup>21</sup> He understands the body as keeping

unconscious 'score' of emotional and physiological memories, and as storing experiences of a pre-symbolic, implicit, and relational kind that have never been narrated by conventional means but for which there is, nevertheless, 'an emotionally laden story waiting to be told.'<sup>22</sup>

Likewise, in developmental studies, Delafield-Butt and Trevarthen contend that embodied narratives are part of our lives from very early on and are even implicit in neonatal movement.<sup>23</sup> On this account, embodied activity has its own inherent narrative structure. According to Delafield-Butt and Trevarthen, the origins of narrative are to be found in 'the innate sensorimotor intelligence of a hypermobile human body'—in the intentional movements of the midterm foetus, movement that is continuous with postnatal, structured movement in which we can identify distal goals and social meaning. Such movements are thus shaped further in 'early proto-conversations and collaborative play of infants and talk of children and adults.'<sup>24</sup>

These movements reflect a fourfold and temporal structure, involving introduction, development, climax and resolution, similar to

that found in semiotic accounts of narrative (contract, competence, performance, and sanction), which are said to constitute the canonical structure of all narratives in semiotics (Figure 02).<sup>25</sup> Accordingly, the serial 'organisation of single, non-verbal actions into complex projects of expressive and explorative sense-making become conventional meanings and explanations with propositional narrative power.'<sup>26</sup>



**Figure 2:**

Four phases of narrative. Author created, based on Colwyn Trevarthen and Jonathan Delafield-Butt, 'Biology of Shared Experience and Language Development: Regulations for the Intersubjective Life of Narratives,' in *The Infant Mind: Origins of the Social Brain*, eds. M. Legerstee, D. Haley, and M. Bornstein (New York: Guilford Press, 2013), 167-199.

The problem with conceiving of this very basic movement as a form of narrative thinking, in the contexts of either psychotherapy or development, is that it leads directly to a form of pan-narrativism where everything seems to be narrative. Galen Strawson, for example, worries about the claim that all of our structured actions have a narrative character.<sup>27</sup> If making coffee in the morning, for example, is a narrative because there is a structure or order to it, then narrativity is trivial—an

unhelpful and uninformative stipulation. Goldie contends that it is always the case that 'a narrative is distinct from what it is a narrative of.'<sup>28</sup> To avoid the problem of pan-narrativism, we need to say that narrative may indeed be a form of thinking about one's actions; but those actions are not themselves narrative. It seems right for narrative theorists to safeguard the concept of narrative in this way.

[We need] a principled account of what makes a text, discourse, film, or other artifact a narrative. Such an account would help clarify what distinguishes a narrative from an exchange of greetings, a recipe for salad dressing, or a railway timetable.<sup>29</sup>

Getting the order of things right is important. The developmentalists are correct to contend that we learn to form linguistic narratives through interactions with others—specifically, when caregivers elicit accounts of just-past actions or events, and when, as young children around two to three years of age, we appropriate the narratives of others for our own stories.<sup>30</sup> The contours of our narratives are shaped by the structures of our actions and by the events themselves. Developmental studies show that narrative starts to emerge in pretend play, typically when engaging with others, where the creation of such narratives is 'accompanied by—rather than [achieved] solely through—language.'<sup>31</sup> In early pretend play, however, we find performative vocalisation rather than narrative. In Gallagher and Hutto,<sup>32</sup> we give the following example: the mother takes the toy car and says 'Zoom, zoom, zoom.' She is not providing a narrative

about the car; she is playing with the car. The child then takes a turn. Performative vocalisations may then get integrated in a narrative that captures the pretend action. The mother says, 'The car goes zoom.' She is now on the way to giving a narrative about the car.

The argument, then, is that *narrative derives its structure from action*. Actions take time to unfold; they have a beginning, they develop, they accomplish a goal, and they conclude. That's a structure that narratives must reflect if they are going to capture what Bruner calls the landscape of action.<sup>33</sup> But that does not mean that actions have a narrative structure; rather, the derivation goes the other way. Narrative thinking is anchored in a pre-narrative event or action structure.<sup>34</sup>

It may still be possible that narratives loop around and start to shape our actions.<sup>35</sup> Explicitly, this can happen in mime, in acting, in therapeutic re-enactments, where an agent enacts a narrative through movement. It can also happen implicitly, which is what makes our actions, in some cases, reflective of narrative thinking.

## conclusion

I've argued that movement itself may be a mode of thinking. This is meant to challenge overly-intellectualist accounts of cognition. There are clear examples in everyday life where sensory-motor engagement assists in problem solving, and where gesture contributes in a constitutive way to the thinking process. I have also pointed to examples in the performing arts—marking, blocking, dancing—that contribute to,

or scaffold, or enable thinking, which is understood in an extended sense as processes of problem solving, memory and reasoning. I have also argued, however, that we should not take this too far and see every kind of movement, or every kind of complex action, as equivalent to forms of thinking. Specifically, I've pointed out the danger—the threat of pannarrativism—if we try to treat movement or action as a form of narrative thinking. Action clearly has a structure, and although we can think of narrative deriving its structure from action, we should not think of the structure of action as an original narrative structure.

**acknowledgements**

This work was supported by the Australian Research Council grant [DP170102987], Minds in Skilled Performance.

**author biography**

*Shaun Gallagher* is the Lillian and Morrie Moss Professor of Excellence in Philosophy at the University of Memphis, and Professorial Fellow at the Faculty of Law, Humanities and the Arts, University of Wollongong (AU). He was a Humboldt Foundation Anneliese Maier Research Fellow (2012-18). Publications include *Action and Interaction* (2020); *Enactivist Interventions: Rethinking the Mind* (2017); *The Neurophenomenology of Awe and Wonder* (2015); *Phenomenology* (2012); *The Phenomenological Mind* (with Dan Zahavi, 2012); *How the Body Shapes the Mind* (2005). He's also editor-in-chief of the journal *Phenomenology and the Cognitive Sciences*.



## notes

- 01 Andy Clark, *Supersizing the Mind: Embodiment, Action, and Cognitive Extension* (New York: Oxford University Press, 2008).
- 02 Michele Merritt, 'Thinking-is-moving: Dance, Agency, and a Radically Enactive Mind,' *Phenomenology and the Cognitive Sciences* 14, no. 1 (2015): 95-110; Maxine Sheets-Johnstone, 'From Movement to Dance,' *Phenomenology and the Cognitive Sciences* 11, no. 1 (2012): 39-57.
- 03 Susan Goldin-Meadow, Howard Nusbaum, Spencer D Kelly, Susan Wagner, 'Explaining Math: Gesturing Lightens the Load,' *Psychological Science* 12, no. 6 (2001): 516-522; Eliza Congdon, Miriam A. Novack, Neon Brooks, Naureen Hemani-Lopez, Lucy O'Keefe, and Susan Goldin-Meadow, 'Better Together: Simultaneous Presentation of Speech and Gesture in Math Instruction Supports Generalization and Retention,' *Learning and Instruction* 50 (2017): 65-74.
- 04 David McNeill, *Gesture and Thought* (Chicago: University of Chicago Press, 2008); Jonathan Cole, Shaun Gallagher, and David McNeill, 'Gesture Following Deafferentation: A Phenomenologically Informed Experimental Study,' *Phenomenology and the Cognitive Sciences* 1, no. 1 (2002): 49-67.
- 05 David McNeill, Bennett Bertenthal, Jonathan Cole, and Shaun Gallagher, 'Gesture-first, but no Gestures?' *Behavioral and Brain Sciences* 28, no. 2 (2005): 138-139; Shaun Gallagher, *How the Body Shapes the Mind* (Oxford: Oxford University Press, 2005).
- 06 Clark, *Supersizing*, 123ff.; Gallagher, *How the Body*, 107ff; Elena Clare Cuffari, 'Meaning well: The Interactive Art of Gesturing,' *Chiasmi International* 18 (2016): 233-246.
- 07 Shaun Gallagher and Robb Lindgren, 'Enactive Metaphors: Learning through Full-body Engagement,' *Educational Psychology Review* 27, no. 3 (2015): 391-404.
- 08 Robb Lindgren and A. Bolling, 'Assessing the Learning Effects of Interactive Body Metaphors in a Mixed Reality Science Simulation,' *paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA, 2013*; Robb Lindgren and J. Michael Moshell, 'Supporting Children's Learning with Body-based Metaphors in a Mixed Reality Environment,' in *Proceedings of the 10th International Conference on Interaction Design and Children*, (June 2011): 177-180.
- 09 Robb Lindgren, Michael Tscholl, Shuai Wang, and Emily Johnson, 'Enhancing Learning and Engagement through Embodied Interaction within a Mixed Reality Simulation,' *Computers & Education* 95 (2016): 174-187.
- 10 Edward Warburton, 'Becoming Elsewhere: ArtsCross and the (Re)location of Performer Cognition,' in *Theatre, Performance and Cognition: Languages, Bodies and Ecologies*, eds. R. Blair and A. Cook (London: Bloomsbury, 2016), 93-106.
- 11 David Kirsh, 'How Marking in Dance Constitutes Thinking with the Body,' *Versus* 112 -113 (2011): 183-214.
- 12 See Evelyn B. Tribble, 'Distributed Cognition, Mindful Bodies and the Arts of Acting,' in *Languages, Bodies, and Ecologies: Theatre, Performance, and Cognition*, eds. R. Blair and A. Cook (London: Bloomsbury, 2016), 132-140; Evelyn B. Tribble, *Cognition in The Globe: Attention and Memory in Shakespeare's Theatre* (New York: Palgrave MacMillan, 2011); John Sutton and Evelyn B. Tribble, 'Cognitive Ecology as a Framework for Shakespearean Studies,' *Shakespeare Studies* 39 (2011): 94-103.
- 13 Sheets-Johnstone, 'From Movement to Dance,' 39.
- 14 Merritt, 'Thinking-is-movement,' 95.
- 15 Jan Deans, 'Thinking, Feeling and Relating: Young Children Learning through Dance,' *Australasian Journal of Early Childhood* 41, no. 3 (2016): 46-57; Miriam Giguere, 'Dancing Thoughts: An Examination of Children's Cognition and Creative Process in Dance,' *Research in Dance Education* 12, no. 1 (2011): 5-28; Miriam Giguere, 'Thinking as they Create: Do Children Have Similar Experiences in Dance and in Language Arts?,' *Journal of Dance Education* 6, no. 2 (2006): 41-47; Sandra Minton, 'Assessment of High School Students' Creative Thinking Skills: A Comparison of Dance and Nondance Classes,' *Research in Dance Education* 4, no. 1 (2003): 31-49.
- 16 Christian Kronsted and Shaun Gallagher, 'Dances and Affordances: The Relation between Dance Training and Conceptual Problem Solving,' *Journal of Aesthetic Education*, in press.
- 17 Merritt, 'Thinking-is-movement,' 96.
- 18 Peter Goldie, *The Mess Inside: Narrative, Emotion, and the Mind* (Oxford: Oxford University Press, 2012).
- 19 Christine Caldwell, 'Mindfulness & Bodyfulness: A New Paradigm,' *The Journal of Contemplative Inquiry* 1, no. 1 (2014): 69-96.
- 20 Caldwell, 'Mindfulness & Bodyfulness,' 89.
- 21 Richard Erskine, 'Nonverbal Stories: The Body in Psychotherapy,' *International Journal of Integrative Psychotherapy* 5, no. 1 (2014): 21-33.
- 22 Erskine, 'Nonverbal Stories,' 22.
- 23 Jonathan Delafield-Butt and Colwyn Trevarthen, 'The Ontogenesis of Narrative: From Moving to Meaning,' *Frontiers in Psychology* 6 (2015): 1157.
- 24 Delafield-Butt and Trevarthen, 'The Ontogenesis,' 12-13.
- 25 Algirdas Julien Greimas, *Du Sens II. Essais sémiotiques*, (Paris: Seuil, 1970); Bronwen Martin and Felizitas Ringham, *Dictionary of Semiotics* (London: Bloomsbury Publishing, 2000), 31-32; Claudio Paolucci, 'Social Cognition, Mindreading and Narratives. A Cognitive Semiotics Perspective on Narrative Practices from Early Mindreading to Autism Spectrum Disorder,' *Phenomenology and the Cognitive Sciences* 18, no. 2 (2019): 375-400.
- 26 Delafield-Butt and Trevarthen, 'The Ontogenesis,' 1.
- 27 Galen Strawson, 'Against Narrativity,' *Ratio* 17, no. 4 (2004): 428-542.
- 28 Goldie, *The Mess*, 6.
- 29 David Herman, 'Introduction,' in *The Cambridge Companion to Narrative* (Cambridge: Cambridge University Press, 2007), 3-21.

- 30 Jerome Seymour Bruner, *The Culture of Education* (Cambridge, MA: Harvard University Press, 1996); Maria Legerstee, *Infants' Sense of People: Precursors to a Theory of Mind* (Cambridge: Cambridge University Press, 2005); Katherine Nelson, 'Self and Social Functions: Individual Autobiographical Memory and Collective Narrative,' *Memory* 11, no. 2 (2003): 125-136; Katherine Nelson, 'Narrative and the Emergence of a Consciousness of Self,' In *Narrative and Consciousness: Literature, Psychology, and the Brain*, eds. Gary D. Fireman, Ted E. McVay, and Owen J. Flanagan, (Oxford: Oxford University Press, 2003), 17-36; Vasudevi Reddy, *How Infants Know Minds* (Cambridge, MA: Harvard University Press, 2008); Vasudevi Reddy, 'Moving Others Matters,' in *Moving Ourselves, Moving Others: Motion and Emotion in Intersubjectivity, Consciousness and Language*, Vol. 6., eds. Ad Foolen, Ulrike M. Lüdtkke, Timothy P. Racine, and Jordan Zlatev (Amsterdam: John Benjamins Publishing, 2012), 139-163; Colwyn Trevarthen, 'Born for Art, and the Joyful Companionship of Fiction,' in *Evolution, Early Experience and Human Development: From Research to Practice and Policy*, eds. Darcia Narvaez, Jaak Panksepp, Allan N. Schore, and Tracy R. Gleason (New York: Oxford University Press, 2013), 202-218.
- 31 Nelson, 'Self and Social Functions,' 125.
- 32 Shaun Gallagher and Daniel Hutto, 'Narrative in Embodied Therapeutic Practice: Getting the Story Straight,' in *The Routledge International Handbook of Embodied Perspectives in Psychotherapy*, eds Helen Payne, J. Tania, Sabine Koch, and Thomas Fuchs (London: Routledge, 2019), 28-39.
- 33 Jerome Bruner, *Acts of Meaning* (Cambridge, MA: Harvard University Press, 1990).
- 34 Richard Menary, 'Embodied narratives,' *Journal of Consciousness Studies* 15, no. 5 (2008): 63-84.
- 35 Marya Schechtman, *The Constitution of Selves* (Ithaca, NY: Cornell University Press, 1996); David Velleman, *Self to Self: Selected Essays* (New York: Cambridge University Press, 2006).

# 'stim your heart out' and 'syndrome rebel' (performance artworks, autism advocacy and mental health)

**Prue Stevenson**

RMIT

[0000-0002-9667-8806](tel:0000-0002-9667-8806)

## abstract

'Stim Your Heart Out' is a set of concepts and beliefs that advocate the benefits of the autistic culture of 'stimming', a repetitive physical action that provides enjoyment, comfort and contributes towards self-regulation of emotions. Facilitating the exploration of contemporary movement in the context of stimming and self-regulation, workshops generated a series of movement scores, culminating in a patented choreographic system of stimming performances documented at the [www.stimyourheartout.com](http://www.stimyourheartout.com) website and associated film.

'Syndrome Rebel' utilises this new choreographic system, where a performative movement score was created. A new stimming symbology/language was then developed and embroidered around the edge of a circular blanket, to record the movement score in this new symbology. The artist then interacted with these symbols within a live integrated movement score stimming performance. Continuing the conversations of Civil Rights and Feminism, the work uses textiles, language and performance to challenge the use of deficit language by the medical academic fraternity, and to protest against social behavioural norms, and the stigma that medical and educational practitioners and society associate with autistic behaviours, due to their medicalised perspective of 'cure'. These works advocate for autistic people to be able to celebrate and practise their autistic culture, while sharing the self-awareness of our sensory perception and neuroperspective with the rest of society.

The project and performance address the prevalence of mental health conditions among autistic people, raise the discussion of art as a process of social cognition, and speak to the gap between descriptions of embodied cognition and the co-construction of lived experience. 'Stim Your Heart Out' project and 'Syndrome Rebel' performance make connections across my lived-experience and research practices within the arts and sciences.

## cite as:

Stevenson, Prue. "Stim Your Heart Out' and 'Syndrome Rebel' (Performance Artworks, Autism Advocacy and Mental Health)," *idea journal* 17, no.02 (2020): 87-104, <https://doi.org/10.37113/ij.v17i02.387>.

## keywords:

autism, consultant, stimming, self-regulation, lived-experience, neurodiversity, deficit language, meltdowns

## performance artworks and theory

This article discusses two of my artworks: 'Stim Your Heart Out,' which is a developmental project that workshopped stimulating movement scores into a proposed performance art form, whilst advocating for autistic cultural space; and 'Syndrome Rebel,' the associated initial project extension movement score performance artwork, which developed an associated symbolic language for documenting both the movement score and the artist's interactions with it during the performance.

These artworks are introduced as manifestations of my lived experience and the direct connection of my art practice to my identity as an autistic woman, overlaid on the environments in which I live, work and breathe. They raise aspects of mental health, autism advocacy and art as a process of social cognition, addressing the gap between descriptions of embodied cognition and the co-construction of lived experience.

## lived experience research

The 'Stim Your Heart Out'<sup>01</sup> project and 'Syndrome Rebel'<sup>02</sup> performance artwork draw upon the breadth of my lived experience, extending from my attendance in the K-12 education system. Flipping between mainstream and disability schooling, I eventually dropped out of school after being expelled. Years later, I found acceptance within the art school environment of my university, particularly in the Master of Art program, where my supervisor helped me feel safe by never judging my meltdowns as deficit.

This lived experience includes exposure to childhood medical practices, where I received an incorrect ADHD diagnosis at seven years and was subsequently incorrectly prescribed Ritalin, to finally being diagnosed with Asperger's Syndrome aged eleven years (with some learning difficulty add-ons such as dyslexia). This diagnosis has been redefined as Autism Spectrum Disorder (ASD) in my adult years, and I now consider myself part of the neurodiverse community.

My lived experience also includes my professional work as an autism consultant for Amaze (Ex Autism Victoria), Project Officer with Annecto Disability Service, attendance at Autism Conferences such as APAC17, and participation in a variety of autism PhD research programs at Deakin University, Olga Tennison Autism Research Centre (OTARC) at Latrobe University, and Cooperative Research Centre for Living with Autism (Autism CRC) at Queensland University, as I searched for the latest thoughts and knowledge within the academic, advocacy, and disability care communities, to compare with my own lived experience of autism.

This is where I met Professor Peter Enticott<sup>03</sup><sup>04</sup> within the Deakin University School of Psychology research programs I was participating in. Peter has been a wonderful sounding board for my lived-experience ideas on autism and how the academic world looks at those specific elements, particularly as I began to explore and document my own research. Peter was also kind enough to be the mental health stakeholder for my 'Stim Your Heart Out' Project and provided the

introduction for my BoK2019 'Syndrome Rebel' presentation,<sup>05</sup> performance,<sup>06</sup> and Q&A.<sup>07</sup> In finding my own lived-experience conclusions on aspects of mental health and how they related to stimming and self-regulation, whilst having no formal qualifications in psychology, I thought it was important for my projects' credibility to find a trusted and experienced ally in Professor Peter Enticott; he had an interest and concern in this area, and was willing to become a stakeholder partner on the project, and add his expertise when and if required.

My personal and family relationships have also been of considerable importance to my lived-experience, particularly in the way my dad describes how I live on a 'knife edge', constantly flipping from one side, 'passing' and negotiating the non-autistic 'mainstream' world, to the other, being wonderfully autistic. In general, I have spent most of my life not quite fitting into either mainstream or disability-designed systems. This is why I fight for less segregation, because I believe that in order for systems to be accessible to all, they need to be written by all. Due to my lived experience as an autistic person, I have critical insight into what it means to be autistic and why certain behaviours manifest. For example, understanding the function of the behaviour. This is a step-by-step structure I have come to understand as follows: I have a behaviour, I question the behaviour, I work out the function of the behaviour. If its function is to help cope in an environment because of sensory sensitivities, I attempt to advocate for the environment to accommodate me. If that's not an option or the behaviour is for a different

reason (e.g. such as emotion regulation, or the inability to advocate for myself, or a repetitive thought pattern that doesn't feel good), I will hone in on my individual sensory profile, for the senses I'm under-responsive to, and create a behaviour with a positive sensory feedback loop, whilst aiming for the behaviour to be safe for me and safe for others.

Because the behaviour is coming from me and I am experiencing the pain, I have insight into the function of my behaviours and my unique environmental, emotional, and social experience. 'Stim Your Heart Out' and 'Syndrome Rebel' are about creating safe spaces for the broader understanding and acceptance of these autistic behaviours that can also be applied in a universal design sense for all minds and bodies.

### **'stim your heart out' advocacy project details**

'Stim Your Heart Out' is a set of concepts and beliefs that advocate the benefits of the autistic culture of stimming, a repetitive physical action that provides enjoyment, comfort, and contributes towards self-regulation of emotions. As the founder of 'Stim Your Heart Out', the idea came from a growing need to advocate for my autistic self, while learning to unmask.



**Figure 01:**  
'Stim Your Heart Out' Film Trailer  
Title Page, 2018. Image provided by  
the Artist/Founder, Prue Stevenson.

## Beliefs

01. Stimming is the innate behaviour, inborn in us all, that links everybody together (we all, for example, click pens, bounce our legs and pace up and down under stress); and,
02. Understanding the value of stimming and 'self-regulation' can create an inclusive understanding between everyone in society.

## Concepts

01. Reinforce autistic culture (e.g. establish the language of stim and stimming so as to empower the autism community);
02. Integrate autistic culture into mainstream society (so autistic people can be themselves and feel safe with stimming or 'meltdowns' in public if they want or need);
03. Re-prioritise the mainstream education system, with self-regulation to be integrated into mainstream schools in the same manner as sex education (i.e. stimming should not be a taboo subject,

so everyone can learn how to self-regulate in a way that is safe for them and others);

04. Help non-autistics to learn from the autistic experts in self-regulation (because non-autistic society has suppressed self-regulation, resulting in outbursts in unsafe ways, e.g. domestic violence, road rage, depression, suicide, self-harm etc.); and,
05. Help mainstream society realise they are so invested in everyone being happy that they are leaving less space for people to express alternative emotions.

## Workshops

The project workshops facilitated the exploration of contemporary movement in the context of stimming and self-regulation. The workshops generated a series of movement scores, culminating in a patented choreographic system of stimming performances documented at the 'Stim Your heart Out' Project website and associated film.



**Figure 02:**  
'Stim Your Heart Out' Workshop,  
Melbourne, 2018. Image by the  
Artist/Founder Prue Stevenson.

### 'syndrome rebel' movement score performance details

'Syndrome Rebel' utilises this new 'Stim Your Heart Out' choreographic system to develop a creative performative movement score. A new stimulating symbology/language was then developed and embroidered around the edge of a circular blanket, to record the movement score in this new symbology. The artist then interacted with these symbols within the work, in a live, integrated movement score stimulating performance.

This new performance artwork creates a safe space for the broader understanding and acceptance of these autistic behaviours that can also be applied in a universal design sense for all minds and bodies. The work continues the conversations of civil rights and feminism, using textiles, language and performance to challenge the use of deficit language by the medical academic fraternity, aiming to protest against social behavioural norms, and the stigma that medical and educational practitioners and society associate with autistic behaviours, due to their



**Figure 03:**  
'Syndrome Rebel' Performance Artwork (sitting & stimulating), Masters ADR Examination, RMIT, 2019. Film still of performance courtesy of professional art documenter Allyn Laing from Docutive ([www.docutive.com](http://www.docutive.com)).



**Figure 04:**  
Spinning and stimulating during 'Syndrome Rebel' Performance Artwork, Masters ADR Examination, RMIT, 2019. Film still of performance courtesy of professional art documenter Allyn Laing from Docutive ([www.docutive.com](http://www.docutive.com)).

medicalised perspective of cure. It advocates for autistic people to be able to celebrate and practise their autistic culture, while sharing the self-awareness of our sensory perception and neuroperspective with the rest of society.



**Figure 05:**  
'Syndrome Rebel'- detail of the  
hand-embroidered woollen blanket.  
Image by the Artist Prue Stevenson,  
2019.

### academic research

My academic research found me reflecting on: my lived-experience of education from early childhood years of sensory play, researching various aspects of childhood innocence and interactive stimming in children's sensory play (i.e. before being influenced by societal behavioural norms); through the primary school years, getting bullied a lot (with confused social skills capabilities); receiving mis-managed

behavioural interventions; and, being taught to suppress or mask my stimming or self-regulating autistic behaviours (i.e. by 'passing' as non-autistic, to try and fit into the expected 'mainstream' societal norms). Key areas of research are outlined below.

The initial sections of academic research on Disability/Deficit Language, Children's Autistic Play, Conferences, and Reclaiming Stimming as Therapy offer the reader some understanding of the justification for reclaiming stimming as a natural autistic culture to be expressed as required in mainstream scenarios.

The later sections of academic research on Autistic Experts, Disability Arts, and Defining Empathy combine to show an emphasis on my artworks and disability arts in general, and the way in which this genre postulates art informing theory.

### Disability/deficit language

Where semiotics means the study of signs and symbols and their use or interpretation, and praxis means it is accepted practice or custom, Nolan and McBride state the following in their Abstract (for their associated article):

Within the medicalized semiotic domain of autism as disease, autistic sensory experience is classified as a sensory integration 'disorder.' The senses, sensory perception and integration are, for autistics, the authority and the warrant by which disablement and psychiatric intervention are rationalized as the purview of medical



and institutional power/knowledge. This positioning reinforces and produces a normative sensory ideal. This semiosis of medicalized discursive practices reduces the disabled person to an essentialized biological body. It is also a semiotic process that discursively constructs the autistic in a deficit-driven language of disease rather than difference. Recognizing the discursive and semiotic nature of disablement, autistic self-advocates (also self-identified as 'neurodiverse') coined the term 'neurotypical' to define non-autistic subjectivity, sensory orientations and social norms on their own terms. As with deaf culture, the neurodiversity movement defines itself as a social and cultural identity rather than impairment. In this chapter, the authors, who are both autistic, explore the possibilities for new literacies of neurodiverse expression and epistemologies that are more self-reflexive about the nature of the semiotics to configure and periodize a sensory imaginary to engage the nullified and revolutionary experience of feeling, sensing and understanding beyond the neurotypical.<sup>08</sup>

The use of deficit language in the disability sector means that children with disabilities are set up for failure right from the start, when in fact, there are many things that they can do well that could start them on a positive pathway.

### Children's autistic play

In his article on 'vivid remembering' and 'interactive stimulating', Conn discusses autistic perceptions, concluding: 'Autistic autobiographies give rise to the notion that a distinctive autistic play culture exists, one that is sensory based rather than socially mediated and concerns exploration of the world as it is autistically perceived and experienced.'<sup>09</sup> He then goes on to discuss the value of autistic perceptions, concluding: 'Play is of intrinsic value to the individual, providing important leisure time and a space where they can be themselves';<sup>10</sup> 'Lack of recognition of the richness of sensory and physical play and of the enjoyment that it provides to children, for example, means that some children are stopped from playing and not given access to suitable play materials.'<sup>11</sup> Conn also discusses the impacts of setting up barriers to these autistic perceptions for the individual, concluding:

Barriers to children playing in ways that provide them with the most happiness and satisfaction has implications for the development of their health and well-being and could be seen as contributing to the construction of negative identities and marginalised roles, and to the stress of 'acting normal.'<sup>12</sup>

### Conferences

It appeared evident to me that a conference that was organised by medical and educational academics, who still used deficit language and allowed the stigmas of mainstream society to influence them, did

not cater well enough for the lived experience of autistic people. Nor was the conference accessible for the target minority group, due to the costs involved, particularly when you compare it to the employment and mental health statistics for the autism community. This evidence is born out in the fact that the APAC17 Program<sup>13</sup> did not use the terms stimming or 'self-regulation' once in their whole four day/eleven parallel streams conference, nor did they accept a presentation on the 'Stim Your Heart Out' Project, stating that it did not align with the theme of the conference. In comparison, it was the arts community, through the Lesley Hall Art Grant facilitated by Arts Access Victoria (AAV),<sup>14</sup> who funded the making of Phase 1 of the 'Stim Your Heart Out' project.

### Reclaiming stimming as therapy

Kapp, in 'People Should be Allowed to Do What They Like: Autistic Adults' Views and Experiences of Stimming,' states:

Supported by a growing body of scientific research, autistic adults argue that these behaviours may serve as useful coping mechanisms, yet little research has examined stimming from the perspective of autistic adults; ... Research suggests that non-autistic people often misunderstand the behaviour of autistic people, likely contributing to autistic people's socio-communicative challenges.<sup>15</sup>

Kapp also states in his news article, 'Stimming, Therapeutic for Autistic People, Deserves Acceptance,' that: 'The neurodiversity

movement, which celebrates autism both as a way of being and a disability to accept and support, has embraced stimming'; he uses my 'Stim Your Heart Out' Project as a supportive resource to his academic claims.<sup>16</sup>

### Autistic experts

Gillespie-Lynch, in 'Whose Expertise Is It? Evidence for Autistic Adults as Critical Autism Experts,' states:

Traditional expert knowledge of autism derives from observations by professionals who often lack the lived experience of being autistic, whose understanding and acceptance of autism might increase by listening to autistic people ... Findings suggest that autistic adults should be considered autism experts and involved as partners in autism research.<sup>17</sup>

Milton, in 'Autistic Expertise: A Critical Reflection on the Production of Knowledge in Autism Studies,' states:

The field of autism studies is a highly disputed territory within which competing contradictory discourses abound. In this field, it is the voices and claims of autistic people regarding their own expertise in knowledge production concerning autism that is most recent in the debate, and traditionally the least attended to.<sup>18</sup>

'Stim Your Heart Out' and 'Syndrome Rebel' aim to create safe spaces for the autistic experts to research their own lived-experience

and communicate their understandings to the broader society through shared experiences of embodied cognition.

### Disability arts

Sarah Houbolt states that 'a lot needs to be done' before society can embrace disabled artists; she is concerned with 'unravel[ing] misconceptions [the audience] might have when they see her walk on stage.'<sup>19</sup> When I stim in a gallery setting, it is about unravelling these same misconceptions. In contrast to the public sphere, galleries present an invitation for people to observe work with interest and curiosity without the overlay of social ideologies. In this way, 'Syndrome Rebel' creates an invitation for society to watch and get familiar and comfortable with autistic stimming.

### Defining empathy

Fletcher-Watson, in 'Autism and Empathy: What are the Real Links?' states,

There is no standard, agreed-upon definition of empathy used in research. One dictionary definition is 'the ability to understand and share the feelings of another' with synonyms including 'affinity with, rapport with, sympathy with, understanding of, sensitivity towards, sensibility to, identification with, awareness of, fellowship with, fellow feeling for, like-mindedness, togetherness, closeness to.'<sup>20</sup>

In the context of this long and varied list of synonyms, it is easy to see why having the capacity for empathy is often seen as a

defining characteristic of being human, and why empathy is such a hard concept to pin down, and consequently to test.

Further, society has a common misunderstanding that autistic people are lacking empathy, that they tend to display their feelings differently or appear to be cold and distant when they are feeling overwhelmed, when in fact they could be experiencing the pain of hyper-empathy. Fletcher-Watson states, 'How can we do better? A first step is certainly to take into account what autistic people tell us about their experience of empathy. Autistic people have described that they experience "... hyperarousal of the empathic system."

'Syndrome Rebel' cuts through these difficulties of empathy and understanding by presenting a creative art form that can be enjoyed through a shared experience of embodied cognition.

### mental health

#### Mental health lived experience

Reflecting on my lived-experience, I spent most of my energy as a child 'passing' as non-autistic, which resulted in me gaining limited access to the K-12 education system. Now that I am an adult, I still have to spend most of my energy advocating for my access needs. Both situations cause detrimental effects to my mental health. These mental health issues are evidenced in the Amaze 'Autism and Mental Health' web article statistics.<sup>21</sup> At APAC17, a presentation by Dr Samuel Odom, 'Are school-based interventions the 'best hope' for children and youth with autism spectrum

disorder?' caught my attention, particularly his 'Matrix of Evidence Based Practices.' This matrix had a column for Mental Health efficiency benefits and outcomes, which was almost empty, flagging that more research should be done in that area. I feel that 'Stim Your Heart Out' and 'Syndrome Rebel' fit exactly into that empty Mental Health column, and hope that greater exposure of the projects will work towards: making stimming part of mainstream society's language; and creating an understanding of the mental health benefits of self-regulation for all types of minds and bodies, by having mainstream society learn from the autistic community's experts in stimming and self-regulation. 'Stim Your Heart Out' was subsequently invited to present at the Aspect Autism in Education Conference (AIE2018),<sup>22</sup> where my slide comments on Dr Odom's flagging of the current mental health status, mentioned above, are viewable at Section 2.7.1 of the presentation. Nolan and McBride suggest that stimming may actually benefit non-autistics who, similarly, are 'conditioned to resist such physical utterance.'<sup>23</sup> I hope that those who experience this work will be prompted to reflect on their own experience of stimming and allow themselves to begin self-regulating on the basis of improving mental health.

In trying to dissuade people from conditioning autistics to suppress urges to stim, this project illustrates more 'inclusive visions of sociality' by 'disrupting narratives of autism as deficit or disease.'<sup>24</sup> I feel I can influence people to adjust their priorities from social conformity to social acceptance of a valid lived experience. Until very recently most people of the autistic

community have felt incompatible in the wider society. A history of segregation through institutions, eugenics, segregated schooling systems, and misdiagnosis, has led to a disconnection, and by design, society does not accommodate the needs of autistic people.

### **Deficit language, diagnosis and support: Impact on mental health**

In my AMAZE autism consulting role, I often commence by talking about the medical model versus social model of disability, and how I translate medical deficit language into empowering lived experience language. I explain how the diagnostic criteria is designed currently in the DSM-5<sup>25</sup> with level 1 (some support), formally known as Asperger Syndrome, level 2 (high support) and level 3 (very high support). Currently autistic people diagnosed with level 1 autism aren't able to access support such as the National Disability Insurance Scheme (NDIS).<sup>26</sup> I believe this is the demographic of autism which is most likely to use all their capacity to mask. Some autistic people can have a rigid way of thinking, which can impede the way they navigate systems such as government support. If you asked me when I was sixteen years old to identify with medical language I would have said 'no, I'm not disordered,' 'I'm not impaired,' 'I don't have a disability.' After a lot of coaching from my father, I gained an understanding of my individual access and support needs, which is why I know I need to use deficit language if I want to gain the support I need to achieve my goals. I also know it is not sustainable for me to describe myself with that same language. This is why

I need two languages. Without NDIS support, I believe autistic people diagnosed with Level 1 have a higher chance of requiring serious mental health support later in life. In my lived experience of masking and having an original diagnosis of Asperger Syndrome, I didn't practice consistent self-regulation, I couldn't advocate for myself to get opportunities and access support without disclosing I am autistic, and I used all my capacity to mask my autism instead of it going towards my education in areas other than how to be a non-autistic. All my masking manifested in behaviours of concern, particularly banging my head on objects such as walls and tables to get lots of feedback from my vestibular sense.

### **Autism research history: Impact on mental health**

The way that autism is perceived is closely connected with its history in medical research. When Hans Asperger's research was translated into English, autistic boys who are highly knowledgeable in one area and lack social capacity were described as having level 1 autism, previously Asperger Syndrome.<sup>27</sup> When Asperger's research was related to Leo Kanner's research, looking at autistic boys who have repetitive movements, are non-verbal and are seemingly unaware of their environment and the people around them, this became known as level 3 autism.<sup>28</sup> When these two pieces of research came together, this is where the concept of the autism spectrum and of high and low functioning autism came from. When the spectrum was described to me as a young person, instead of it being explained as level 1 autism at one end and level 3 autism at the other end of a

spectrum, it was described to me as autism at one end and non-autistic at the other end. The closer I was to autism the more I would be in trouble, get punished, or miss out on opportunities. The closer I was to non-autistic, the more praise and opportunities I would get; this is how a lot of autistic people are coached out of their natural autistic way of being. Of course, it is never going to be sustainable to keep up appearances all the time, and eventually, my brain gets tired and overworked and shuts down, causing a meltdown. This is when all the unfiltered autistic behaviours come out and I, until very recently, would get flooded with feelings of guilt and shame and think I was a monster. All because I was being deprived from self-regulating because it is highly stigmatised.

### **The autism spectrum: Linear versus holistic and fluctuating**

When I train people in autism, I explain to them both the old/current linear way of perceiving the autism spectrum, and the way that autistic advocates like myself think about it. I use the analogy of a colour wheel where each colour represents a skill (e.g. executive functioning, sensory, social communication etc.) and the gradient of each colour represents levels 1, 2, and 3. Where the individual sits fluctuates. The individual could be level 2 in sensory and level 1 in social communication skills. Then when the individual gets tired, they might be level 3 in sensory and level 2 in social communication skills.

### **Advocating versus masking: Impact on mental health**

I would rather use my brain's capacity advocating for my access needs than mask my autism. By advocating, I am able to make change and mould environments to fit me. When they embody universal design, I don't need to work so hard on advocacy and instead get to use my capacity for the actual reason I am there. When I mask my autism, it's not sustainable. I am using all my brain's capacity to make people around me more comfortable, then I get tired and start behaving autistic, and people aren't used to that, and I lose opportunities. When I mask my autism, I haven't got enough opportunities to self-regulate and that affects my mental health and I have more behaviours of concern. It takes a lot of confidence to behave autistic when you have learnt to be hyperaware of your behaviours and how they make people around you uncomfortable or think less of you. I hope that the more people see me practising stimming, the more awareness, acceptance and opportunities there will be for everyone to practise self-regulation.

### **Mental health stakeholder input**

In an interview, Professor Peter Enticott points out that autism is typically characterised within a biomedical model and diagnosed under criteria from the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM) or the World Health Organisation's International Classification of Diseases (ICD). Comorbid disorders of mental health are commonly diagnosed, particularly depression and anxiety. This model, while critical for

understanding the aetiology of autism and providing assistance where required, is focused entirely on deficits of autism, which can serve to stigmatise aspects of autism, such as stimming, that can otherwise be very functional for the individual (e.g., helping to regulate negative affective states and combat mental difficulties such as anxiety).<sup>29</sup> 'Stim Your Heart Out' and 'Syndrome Rebel' call into question the 'deficit' model of autism and can inform on different ways of enhancing one's experience of the world.

### **critical philosophical reflections**

#### **Mental health stakeholder reflections**

Having worked in autism for almost twenty years, Enticott offers further critical reflection on some of the big frustrations he has encountered in the broader community, which include: a lack of understanding as to the nature of autism; continual stigmatisation and stereotyping; and a failure to accept or recognise anything that's not considered part of the 'mainstream,' a category that seems to be getting narrower and narrower. For Peter, his work is really about how we regulate our own behaviour and our emotional experience, which is a huge part of mental health. Different people have different ways of achieving this self-regulation; some ways are more harmful than others, but there are many important, positive experiences that we all seek for the same purpose, even if the actual expression is different.<sup>30</sup>

Stimming is not particularly well addressed by current cognitive theories of autism, which include 'theory of mind' (i.e., interpreting others' mental and emotional states),

'executive dysfunction' (i.e., difficulties in cognitive abilities that allow goal-directed, purposeful behaviour), 'weak central coherence' (i.e., an emphasis on processing stimulus detail at the expense of the broader environmental context), and 'predictive coding' (where perceptual decision making involves a balance of knowledge about the world, or 'priors,' and sensory input).

From a cognitive perspective, stimming is often spoken about with respect to 'perseverative behaviour' (e.g., a maladaptive lack of behavioural inhibition); but from the perspective of these projects, stimming is perhaps best conceptualised within an emotion regulation framework, where sensory input produced from stimming behaviour serves to provide a means for down-regulating emotional arousal (particularly negative emotional states). Stimming can also be seen as from a communicative perspective, particularly where it involves vocalisation.

### Performance reflections

'Syndrome Rebel' has now been performed three times, initially being created and performed for the MCA Artbar in Feb 19, curated by Lara Merrett,<sup>31</sup> then at BoK2019,<sup>32</sup> and most recently for my master's ADR Examination Exhibition<sup>33</sup> (Figures 03 and 04). At MCA Artbar, it felt gratifying to have an audience of people watching my performance. I felt that they were not judging my stimming in a negative way. Everyone in the room seemed relaxed and watched with interest. I was so excited to have a space to be able to share stimming where I knew, in the social constructs of the gallery (in comparison to

the social constructs of society in general), that I had people who knew they were coming to see a performance. There's a perimeter that's created by the mat that I stand on. It's an autism safety zone, a stimming zone, and I can walk on it knowing that I don't need to help anybody through that experience. I can just be free to stim. I was so excited, and that excitement came out in my performance and in my stimming and I was really energetic. And so, when I came off the mat, people said that they really experienced the joy in my performance.

### Societal reflections

Stimming is like a signal going, 'I'm getting overwhelmed,' 'I need some quiet time,' 'I need some downtime, and I need to not get touched.' Our parents and family and educators all think that this behaviour is going to hold us back because of all the stigma that comes with it. If you are part of the disability community, you don't get as many opportunities. You won't get a job. You won't be able to participate in society the way that they really want you to be able to do; but it's actually those stigmas that are holding us back. I don't *have* autism, I *am* autistic. Every autistic person is different, and I'm the Prue version of autism. My art practice helps me understand the world and understand myself. I try to be like a reflection of society. It was really clear to me (in the mainstream K-12 school system) that there weren't really any avenues to places where I could express my emotions. It was clear that people just wanted me to bottle up my emotions. I left high school, thank goodness, and pursued my strengths and interests in art.

### Art school reflections

In my studio at RMIT, I made a quiet room under my work desk (so I could have down time without having to go home). People think I'm upset when I have my meltdowns, so I can go in here and have some quiet time and let my brain have a rest. A meltdown is basically when my brain gets overloaded by information. The neuro pathways in my brain, there are a lot more of them. It means that my brain works five times harder than an average brain, with the expectation that I get the same processing time as a non-autistic person. My brain gets tired and shuts down. I've been told I can look scared or upset. I'm not actually scared or upset.

Eventually, I started to branch away from figurative work and go into more abstract expressionist works. I was also making 'By-product',<sup>34</sup> my knitted work. Grandma taught me how to knit when I was young. When I was at art school, I made the connection between knitting and self-regulation, and then took that on as a (socially acceptable) form of stimming. I even saw a psychologist once and I said, 'I feel like I need to self-regulate and I need to get this energy out,' and she said, 'If you feel like that you can just sit on your hands, or if you're leaning on a wall, you can push energy into the room and no one will know that you're doing it.' So, she was teaching me tools of how to suppress and hide my autistic traits. After years and years of my parents and educators influencing me in that same way, I started to break free from that in my undergraduate time. I think that right now, it's really important to have words like 'autism.' However, one day, it would be great for us all to fall under the term

'neurodiversity' and then a word like autism wouldn't be needed to advocate for our access needs.

### Lived experience reflections

There is a function to every stim. After thinking about it for a long time, I've realised that patting is one of my favourite stims. Patting has a very diverse range of functions that it can fulfil, and it is accessible in many different environments. For example, one function that patting can have is that if I'm in an environment and I'm unsure of what to do, I don't have a structure to work with, then patting say, a wall or some carpet, can create that structure for me to focus on. And then I feel really calm. If I'm feeling really overwhelmed, I can pat something, and it can help me regulate my emotions. When I'm hypersensitive or overwhelmed by one sensation that my brain's struggling to process, I can give myself positive sensory input by patting. And that's because of the way that patting interacts with my personal sensory profile.

My personal sensory profile means I am an avoider with some senses and a seeker with other senses. I'm hypo- or under-responsive to my sense of balance, which means I love to move. I love stims that activate my vestibular sense, such as jumping up and down, spinning, walking on my tip toes, rocking, and moving my head a lot. I'm hyper- or over-responsive to my sense of smell and also my sense of hearing, which means when my brain needs to process those sensations, it can become painful and make my brain work too hard and start to overload and shut



down. To prevent a meltdown, I can activate senses I'm hypo-sensitive in and give myself positive sensory input to combat negative sensory input. For example, if there is a smell that is really painful, or if there is more than one person speaking at a time, more than one sound source, or someone's talking and the TV is talking at the same time, my brain won't be able to selectively hear, and it will process both sounds at the same time. And then my brain will get overloaded. To help combat that, I can activate something like a patting motion, and that will help me to prevent my meltdown.

### **Reflections on the art process as theory**

'Syndrome Rebel' raises the discussion of art as a process of social cognition and addresses the gap between descriptions of embodied cognition and the co-construction of lived experience. I believe this is the process to successfully break through the stigmas within society and create a path for the highly capable and willing autistic community to be more fully engaged and utilised. The focus of my works has been the sharing of my autistic strengths that emanate from my innate ability to self-regulate and manage the impacts of both extended detail focus and a widened sensory perception in a society not yet designed to accommodate for diverse neuro-types. Many of these reflections and more are expressed in my 'Perspective Shift' SBS On Demand TV Series<sup>35</sup> and Woman with Disabilities Victoria, 'Do Your Thing' Video Series.<sup>36</sup>

In the future, I plan to continue my advocacy work through the arts, creating more stimulating works and gathering further data to support the 'Stim Your Heart Out' beliefs. Additionally, I am searching for a suitable collaborative organisation to help me develop a 'Stim Your Heart Out' curriculum for training in the benefits of stimulating/self-regulation.

## acknowledgements

'Stim Your Heart Out' Stakeholders & Team: Prof. Peter Enticott; Annecto: Joan Cooney and Helen Kowalyk; AAV, Lesley Hall Art Grant, Rebecca Jensen, Akasha Temple, Tamar Dolev, Gabrielle Hall, Chloe Matthews, Penny Robinson, Maz Strong & Peter Stevenson.

'Syndrome Rebel' Allies: Daniel Tedford, Nicole Symington, Donna Stevenson, Alex Stevenson, Daniel Bornstein, Nikola Doslov, Museum of Contemporary Art (MCA), Lara Merrett (Artist), RMIT University: Dr Michael Graeve, Ceri Hann, Andre Liew, Paula McDonald, Dr Laresa Kosloff, Dr Steven Rendall, Dr Jan Nelson, Dr Dom Redfern, Dr Sally Mannall, MFA and PhD peers, OTARC, Amaze, Attitude Foundation and BoK2019.

*I acknowledge the Wurundjeri and the Boon Wurrung people of the Kulin Nations on whose unceded land I live and work. I acknowledge the historic and ongoing crime of dispossession. I would also like to acknowledge all autistic, deaf and disabled Aboriginal and Torres Strait Islanders, as we all work together to create an inclusive and equitable space for all. I pay my respects to their elders past, present and emerging.*

## author biography

*Prue Stevenson* uses repetitive and tactile processes to allow for experiences of sensory play, creating spaces and opportunities for downtime. Working with oil, ceramics, textiles, sculpture, installation and performance, she advocates for the identity, empowerment and sensory awareness of the autistic community. She intersects with and collides against preconditioned stigmas and resultant systematic oppression and aims to celebrate and progress autistic culture for autistics, while creating experiences that are more broadly accessible. Prue is a practising fine artist, with a Bachelor of Fine Art (Expanded Studio Practice) and Master of Fine Art (by Practice) from RMIT.

## notes

- 01 Prue Stevenson, 'Stim Your Heart Out' (2017), accessed 10 June 2020, [www.stimyourheartout.com](http://www.stimyourheartout.com).
- 02 Prue Stevenson, 'Syndrome Rebel,' a movement score performance at the 2019 *Body of Knowledge Conference*, accessed 10 June 2020, <https://www.youtube.com/watch?v=f2Ami0yhPpl>.
- 03 Peter Enticott, 'Deakin University Staff Profile and Biography,' accessed 10 June 2020, <https://www.deakin.edu.au/about-deakin/people/peter-enticott>.
- 04 Peter Enticott, 'Deakin University, ORCID Researchers Page,' accessed 10 June 2020, <https://orcid.org/0000-0002-6638-951X>.
- 05 Prue Stevenson, 'Syndrome Rebel' artist statement, (2019), accessed 10 June 2020, <http://www.pruestevenson.com/artwork#/syndrome-rebel>.
- 06 Prue Stevenson, 'Syndrome Rebel,' a movement score performance at the 2019 *Body of Knowledge Conference*, accessed June 2020, <https://www.youtube.com/watch?v=f2Ami0yhPpl>.
- 07 Prue Stevenson, 'Syndrome Rebel', 2019 *Body of Knowledge Conference*, accessed June 2020 Q&A, accessed 20 June 2020, <https://www.youtube.com/watch?v=DA6YGNf9bml>.
- 08 Jason Nolan and Melanie McBride, 'Autistic Stimming as Sensory Praxis' in *Handbook of Semiotics*, ed. Peter Pericles Trifonas (2015), 1069, [https://link.springer.com/chapter/10.1007/978-94-017-9404-6\\_48](https://link.springer.com/chapter/10.1007/978-94-017-9404-6_48).
- 09 Carmel Conn, "'Sensory Highs,'" "Vivid Rememberings," and "Interactive Stimming": Children's Play Cultures and Experiences of Friendship in Autistic Autobiographies,' *Disability & Society* 30, no. 8 (14 September 2015): 1203, accessed 20 October 2020, <https://doi.org/10.1080/09687599.2015.1081094>.
- 10 Conn, "'Sensory Highs,'" "Vivid Rememberings," and "Interactive Stimming": Children's Play Cultures and Experiences of Friendship in Autistic Autobiographies,' 1203.
- 11 Conn, "'Sensory Highs,'" "Vivid Rememberings," and "Interactive Stimming": Children's Play Cultures and Experiences of Friendship in Autistic Autobiographies,' 1203.
- 12 Conn, "'Sensory Highs,'" "Vivid Rememberings," and "Interactive Stimming": Children's Play Cultures and Experiences of Friendship in Autistic Autobiographies,' 1203.
- 13 Asia Pacific Autism Conference 2017 (APAC17) - 'Growing with Autism' Program, accessed 20 October 2020, <https://apac17.org.au/program.php>.
- 14 Arts Access Victoria, 'Lesley Hall Arts and Disability Scholarship & Arts Grant 2016,' accessed 10 June 2020, <https://www.artsaccess.com.au/lhs-2016/>.
- 15 Steven K Kapp, Robyn Steward, Laura Crane, Daisy Elliott, Chris Elphick, Elizabeth Pellicano and Ginny Russell, 'People Should be Allowed to Do what they Like: Autistic Adults' Views and Experiences of Stimming,' in *PubMed: Autism* 23, no. 7 (Oct 2019): 1782, accessed 28 June 2020, <https://pubmed.ncbi.nlm.nih.gov/30818970/>.
- 16 Steven Kapp, 'Stimming, Therapeutic for Autistic people, Deserves Acceptance,' *Spectrum: Autism Research News* (2019), accessed 10 June 2020, <https://www.spectrumnews.org/opinion/viewpoint/stimming-therapeutic-autistic-people-deserves-acceptance/>.
- 17 Kristen Gillispie-Lynch, Steven K. Kapp, Patricia Brooks, Jonathan Pickens and Ben Schwartzman, 'Whose Expertise Is It? Evidence for Autistic Adults as Critical Autism Experts,' in *Frontiers in Psychology* (2017), 10, accessed 28 June 2020, <https://www.frontiersin.org/articles/10.3389/fpsyg.2017.00438/full>.
- 18 Damian Milton, 'Autistic Expertise: A Critical Reflection on the Production of Knowledge in Autism Studies,' *Autism* 18, no. 7 (2014): 794-802, accessed 20 October 2020, <http://doi.org/10.1177/1362361314525281>.
- 19 Amanda Hoh, 'Sarah Houbolt Brings Her Circus Act and Advocacy for Disabled Arts to the Festival of Dangerous Ideas,' *ABC News Online*, (2016), accessed 25 April 2019, <https://www.abc.net.au/news/2016-09-01/sarah-houbolt-proud-natural-born-freak-festival-dangerous-ideas/7804774>.
- 20 Sue Fletcher-Watson and Geoffrey Bird, 'Autism and Empathy: What Are the Real Links?' *Autism* 24, no. 1 (1 January 2020): 3-6, accessed 28 June 2020, <https://doi.org/10.1177/1362361319883506>.
- 21 Amaze, DSM-5 Information Sheet: Changes to the Diagnostic Criteria for Autism, 2013, accessed 20 October 2020, <https://www.amaze.org.au/wp-content/uploads/2019/08/Amaze-Information-Sheet-Changes-to-the-diagnostic-criteria-for-autism.pdf>.
- 22 Prue Stevenson, 'Stim Your Heart Out,' Aspect Autism in Education 2018 Presentation 7: Innovations, accessed 10 June 2020, <https://www.youtube.com/watch?v=oTiTw9NnDcE>.
- 23 Nolan and McBride, 'Embodied Semiosis,' 1075.
- 24 Nolan and McBride, 'Embodied Semiosis,' 1075.
- 25 American Psychiatric Association, '*Diagnostic and Statistical Manual of Mental Disorders*,' Fifth Edition (American Psychiatric Association, 2013), accessed 20 October 2020, <https://doi.org/10.1176/appi.books.9780890425596>.
- 26 National Disability Insurance Scheme, 'Understanding the NDIS,' accessed 10 June 2020, <https://www.ndis.gov.au/understanding>.
- 27 Hans Asperger, "'Autistic Psychopathy'" in Childhood,' in *Autism and Asperger Syndrome*, ed. Uta Frith (New York: Cambridge University Press, 1991), 37-92, accessed 20 October 2020, <https://doi.org/10.1017/CBO9780511526770.002>.
- 28 Leo Kanner, 'Autistic Disturbances of Affective Contact,' in *Nervous Child* 2 (1943): 217-50, accessed 20 October 2020, <http://embryo.asu.edu/handle/10776/7895>.
- 29 Peter Enticott, interview via Zoom dated 22 May 2020 (from recorded transcript).
- 30 Enticott, interview, dated 22 May 2020 (from written input dated 25 May 2020).
- 31 Lara Merrett, 'Things We Do Together,' Museum of Contemporary Art Australia ARTBAR February 2019 Interview, accessed 10 June 2020, <https://www.mca.com.au/stories-and-ideas/february-artbar-curator-lara-merrett-things-we-do-together/>.
- 32 Body of Knowledge: Art and Embodied Cognition Conference 2019, Conference overview, accessed 10 June 2020, <https://blogs.deakin.edu.au/bok2019/>.
- 33 Prue Stevenson, 'Neuroperspective' Online Exhibition (including 'Syndrome Rebel'), PLATFORM Live (Screen Session, Audio Description) (2020), accessed 15 July 2020, <https://www.youtube.com/watch?v=h1FYk8pD5n4>.
- 34 Prue Stevenson, 'By-Product,' artist statement (2019), accessed 10 June 2020, <http://www.pruestevenson.com/artwork#/new-page-1>.

- 35 Attitude Foundation,  
'Perspective Shift,' SBS On  
Demand TV Series, Episode  
2: Prue Stevenson, (2019),  
accessed 10 June 2020, [https://  
www.sbs.com.au/ondemand/  
video/1633420355609/  
perspective-shift-prue](https://www.sbs.com.au/ondemand/video/1633420355609/perspective-shift-prue).
- 36 Woman with Disabilities  
Victoria, 'Do Your Thing,'  
Video series: Prue Stevenson,  
(2019), accessed 10 June 2020,  
[https://www.youtube.com/  
watch?v=4oQpH8TRVno](https://www.youtube.com/watch?v=4oQpH8TRVno).

# sympathetic world-making: drawing-out ecological-empathy

**Pia Ednie-Brown**

University of  
Newcastle

[0000-0002-4498-0659](https://orcid.org/0000-0002-4498-0659)

**Beth George**

University of  
Newcastle

[0000-0002-0129-304X](https://orcid.org/0000-0002-0129-304X)

**Michael Chapman**

University of  
Newcastle

[0000-0002-4381-2266](https://orcid.org/0000-0002-4381-2266)

**Kate Mullen**

La Trobe  
University

[0000-0003-2706-8753](https://orcid.org/0000-0003-2706-8753)

## abstract

This article reflects on an experiment in drawing, titled *Surrogate Drawing*, in which an assemblage of people, materials and artefacts engaged in a live, improvisational process of co-production. The group was interested in how empathy might be cultivated through architectural drawing.

The article develops an argument across three main parts. The first part offers a brief overview of the drawing experiment, situated relative to some key assumptions and conventions of architectural drawing, via the work of Robin Evans and others. In particular, this involved unsettling the idea of translation and its underlying premise of projection—a premise that resonates with the concept of empathy. The second part moves into a series of first-person accounts, one from each author. This experiential access reveals degrees of complexity that question the model of projection as a primary operative principle for either drawing or empathy, calling for an alternative conceptual framework. The third part offers such an alternative, via Jakob von Uexküll's work concerning the *Umwelt*, or perceptual life-worlds. Via Uexküll we come to better understand drawing as less of a process of translation or transmission, and more of a process of creative world-making. Through Uexküll's depiction of the *Umwelt* as a 'bubble,' the paper offers an alternative diagrammatic to that of projective geometries: that of a foaming.

The manifestly *collective* world-making inherent in this drawing experiment leads us to conclude by opening up something we discuss as 'ecological empathy'—or sympathy. It is proposed that drawing, if conceptually liberated from projective models, may be an important technique to cultivate ecological-empathy, or sympathy. This points toward a way that architecture might be reoriented toward sympathetic world-making.

## cite as:

Pia Ednie-Brown, Beth George, Michael Chapman and Kate Mullen. 'Sympathetic World-making: Drawing-out Ecological-Empathy,' *idea journal* 17, no.02 (2020): 121–143, <https://doi.org/10.37113/ij.v17i02.372>.

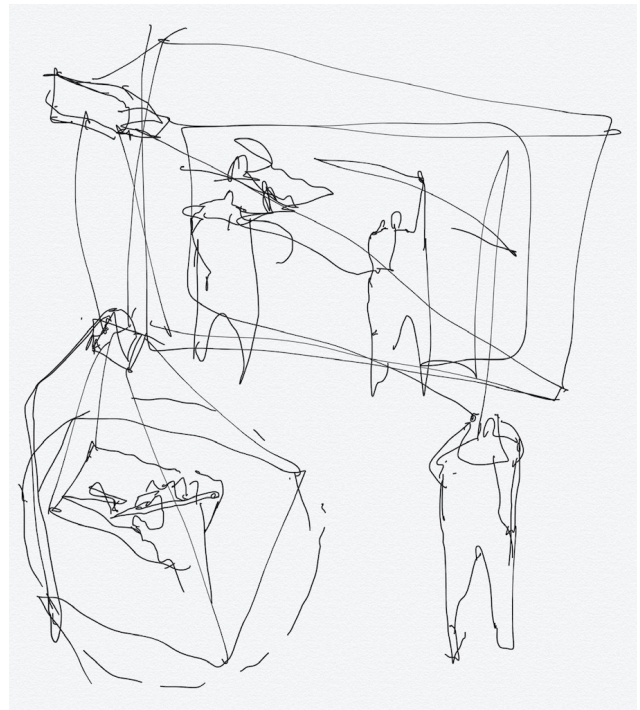
## keywords:

drawing, empathy, sympathy, projection, architecture

## introduction: the drawing experiment

In 2019, a spatial drawing assemblage was constructed in a gallery space, as part of the exhibition for the Body of Knowledge: Art and Embodied Cognition conference, at Deakin University. The work was titled *Surrogate Drawing*, as conceived by Michael Chapman and Beth George, who developed the initial concept and invited others (Kate Mullen and Pia Ednie-Brown) to participate. The aim was to experiment with how a group might act in unison and seek out attunement through drawing together, as a way to explore potential relations between architectural drawing and empathy. A finger injury meant that Chapman had to keep drawing actions small and discrete, prompting the inclusion of a televisualiser that could relay small scaled drawings to the full scale of the wall, in order that those lines be reiterated and expanded by George and Mullen at another scale of bodily action. This effectively stretched the space of the drawing, distributing control, and incorporating multiple bodies. The projection from the televisualiser aligned with six A1 sheets of drafting film, which George and Mullen drew onto with an array of materials—graphite, charcoal, crayon, and paint—through additive and subtractive techniques. Ednie-Brown's role was to document the process with a range of recording devices, with a view to analyse the exchange. She entered into and modulated activity in a variety of ways. A simple, white, rectangular table, placed between the televisualiser and the drafting film on the wall, supported the smorgasbord of materials. Music was often playing while drawing was underway, and both humans and the evolving drawing danced.

Talking did occur in relation to what was happening, but mostly, noises took the form of laughter, exclamation, and sounds made by the drawing materials as they made their way onto the drafting film—scraping, rubbing, scratching. On a few memorable occasions, the drawing activity became a high-intensity drumming on the wall/drafting film with fingertips. The materials of drawing smeared their way across faces, clothes and the floor. The overall assemblage gradually smudged itself into itself.



**Figure 01:**  
Diagram of *Surrogate Drawing*  
framework showing televisualiser,  
projection and full-scale drawing.  
Beth George, 2019.

**Figure 02:**

*Surrogate Drawing 1* with projection from televisualiser. Beth George, Michael Chapman, Kate Mullen, Pia Ednie-Brown and an ecology of nonhuman agents, 2019.

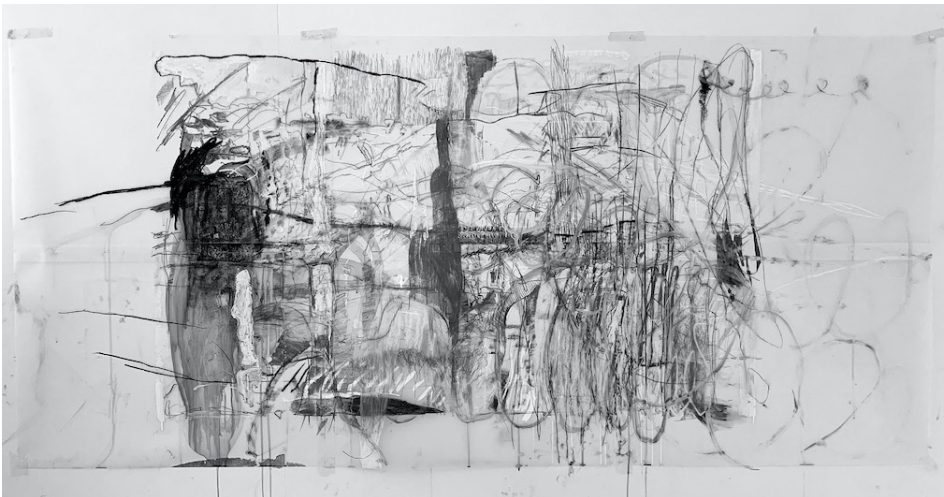
Three drawings were produced, each taking 90 minutes, in three half hour blocks. Photographs were taken every ten minutes, and the whole process was filmed in time lapse. In order for the time lapse camera to capture all people drawing at once, a projector displayed video footage of the televisualiser drawer on the wall adjacent to the wall drawing activity.

The third drawing in the series was done in the context of an exhibition opening with a 'live audience,' with prior drawings and a quickened time lapse video of prior production displayed alongside the action.

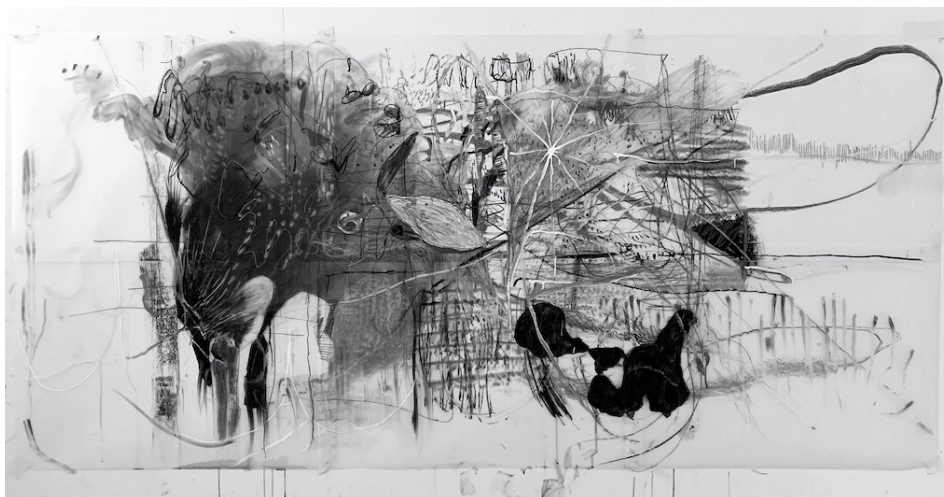
The title *Surrogate Drawing* emerged through an interest in the 'surrogate balance' in kinesiology. This process allows one's body to 'stand in' as a physical substitute for another person. The drawing assemblage was designed along these lines, with Mullen and George 'standing in' for Chapman between his hand (with broken finger), drawing in small sketch book, and its enlarged projection on the wall. As we go on to discuss, any idea of a one-directional 'transference' or translation from one place to another, was blown apart by the lived reality of this collective drawing exploration.



**Figure 03:**  
*Surrogate Drawing 1.* Beth George,  
Michael Chapman, Kate Mullen,  
Pia Ednie-Brown and an ecology of  
nonhuman agents, 2019.



**Figure 04:**  
*Surrogate Drawing 2.* Beth George,  
Michael Chapman, Kate Mullen,  
Pia Ednie-Brown and an ecology of  
nonhuman agents, 2019.



**Figure 05:**  
*Surrogate Drawing 3.* Beth George,  
Michael Chapman, Kate Mullen,  
Pia Ednie-Brown and an ecology of  
nonhuman agents, 2019.



## part 1: drawing, empathy and projection

The idea of translation plays a powerful role in the way that architectural drawing is understood to operate: as a vehicle for moving ideas onto paper and subsequently into built form. Drawing becomes imagined as a unidirectional passage, where images in the mind are translated onto the page via the drawer/designer. With an arm's length between body-mind and surface, the distance is mediated by an implement. The drawing then becomes something of a surrogate, standing in for the mind's eye of the designer.

However, drawing is never unidirectional: percepts (thoughts, images, feelings, and ideas) develop as part of the drawing process, looping back and forth between percept and paper. Moreover, this loop does not pass through a neutral medium, because drawing always involves a variety of possible media and takes place in a specific situation or environment, all of which play into the overall activity. By taking into account the many situational and material dimensions of drawing,<sup>01</sup> the linear idea of transferring, or translating ideas through drawing, breaks down into a network of agents and affects.

Famously, this issue was taken up by Robin Evans in his essay 'Translations from Drawing to Building.'<sup>02</sup> Evans raises the spectre of 'translation' as an idea of moving something from one place to another without altering it, which he recognises as a necessary fiction for architects, who draw representations of buildings in order for them to be materialised. The idea of translation

rests on the assumption of an entirely 'imaginary condition,' that of 'a uniform space through which meaning may glide without modulation.'<sup>03</sup> This may, as he suggests, be an 'enabling fiction' but the degree to which its fictionality remains unacknowledged leads to other (non-translational) properties of drawings remaining unrecognised. Evans's concluding remarks suggest the possibility of writing a history of western architecture that concentrates on the manner of working rather than style or signification. Such a history, he suggests, would in large part:

... be concerned with the gap between drawing and building. In it, the drawing would be considered not so much a work of art or a truck for pushing ideas from place to place, but as the locale of subterfuges and evasions that one way or another get around the enormous weight of convention that has always been architecture's greatest security and at the same time its greatest liability.<sup>04</sup>

The collaborative drawing experiment under discussion here did not, as per Evans' suggestion, focus on the gap between drawing and building, but rather, on drawing and drawers. The drawing was not of a subject, not translating from an object to a depiction of it, and also did not seek to predict any formal outcome. It was the product of its own spatial assemblage.

While the gap between drawing and building in architectural practice, as messy and evasive as its reality may be, is functionally

and contractually required to operate in translational terms, what happens between the drawing and the drawer tends to fall into the realm of 'mystery', leading to many fables of the (generally male) 'creative genius.' In the opening to his book, *The Projective Cast*,<sup>05</sup> Robin Evans discusses this mythology in relation to geometry, pointing to accounts of drawers who travel the 'desperately incommunicative' realm of geometrical drawing 'alone,' and 'lock the mystery into place as a professional secret, or even a personal secret.'<sup>06</sup> He comments upon how this makes architects susceptible to delusion, through their inexpressible 'faith' that geometry holds and conveys truth. These delusions, as Evan's detective work reveals across the book, are caught up in related conceits around ideas such as 'rigour,' and operationalised via the fictive geometrical armature of projection. As Evans writes:

What connects thinking to imagination, imagination to drawing, drawing to building, and buildings to our eyes is projection in one guise or another, or processes that we have chosen to model on projection. All are zones of instability.<sup>07</sup>

Other attempts to explicate drawing processes have stepped into these 'zones of instability.' In her intricate analyses of her own and other's drawing processes, Patricia Cain explores 'drawing as a recursive co-dependent process between the practitioner and the drawing.'<sup>08</sup> Through Francisco Varela's elaborations of 'enactive cognition' and mobilised via a range of methodologies—first-person accounts

of her drawing process, interviews with others, and a process of enquiry through copying other drawings—Cain shows how the supposedly simple, translational and reflective relationship between drawer and drawing is not simple at all. The implication that we lose ourselves in this complexity, complicating claims of sole authorship, can also be read in Peter Cook's suggestion that '...the architect can make drawings that transport him or her into a form of séance.'<sup>09</sup> Both Cain and Cook refer to a communion with one's drawing and the constitution of a feedback loop between person and work.

While the linear and regulated act of projection contravenes the expansive complexity of drawing as a process, architectural drawing is something, as Evan's points out, that we have 'we have *chosen to model on projection*' (*our emphasis*).<sup>10</sup> While the fiction implicit to the model is certainly enabling, we need to also ask what it hinders. A similar problem, we came to realise, is at work with the concept of empathy, also tied to questions of translation and projection.

A key question driving this drawing experiment was how creative activity might cultivate empathy: Can we develop drawing techniques that might usher a greater emphasis on empathy into architectural creation?

Those of us involved in architectural education had discussed, on numerous occasions, our fatigue and scepticism with many familiar architectural design refrains emphasising 'problem solving,' 'ideas,'

'critique,' 'rigour,' etc, that had become ruts of rationalisation in which the discipline was stuck. Motivated by concerns for architecture's diminishing contemporary agency—particularly in the face of new types of problems presented by the Anthropocene—we were curious about ways to shift design activity out of these ruts. Our proposition was that this might be approached through rebalancing the dominant, rationalist framings of practice (such as rigour) with more explicit attention to affective orientations, with empathy taking on a potentially productive lead. Bringing Mullen into the process as an artist interested in 'deep listening' was significant for these reasons, helping render it more difficult for disciplinary habits to take over. As such, the framework for the drawing process was designed for a diverse group of people to engage in drawing-feeling together through shared mark-making, as it was emerging via multiple forces. Would this sharing of marks-in-the-making accentuate empathy?

Empathy as a concept has a strong historical relationship with the arts, being developed through the field of nineteenth century German aesthetics, as a translation of the word *Einführung*, which is literally 'feeling into.' Robert Vischer's 1873 text, *On the Optical Sense of Form: A Contribution to Aesthetics*,<sup>11</sup> argued that art created a forum to engage with and connect with the object, not as an observer, but as a participant. As he famously wrote, 'I transport myself into the inner being of an object and explore its formal character from within.'<sup>12</sup>

As Joanna Ganczerek puts it,

...the term 'Einführung' literally means 'feeling into' and refers to an act of projecting oneself into another body or environment ...[as] some kind of imaginary bodily perspective taking, which is aimed at understanding what it would be like to be living in another body or another environment.<sup>13</sup>

Empathy as a concept is historically rooted in the idea of projection, and this has underpinned its future. *Einführung* was linked to the phenomenon of 'embodied simulation' or 'mirror neurons' by neuroscientist Vittorio Gallese in 2008.<sup>14</sup> Mirror neurons were originally observed through the study of macaque monkeys, showing correlations in brain activity between a monkey that is eating a peanut, and one that is watching. This offered a scientific lens through which to consider the operations of empathy, which came to reinforce its representational and projective assumptions, wherein specific neurological patterns (arguably, a form of geometry) are translated across space between one body and another, through visual means.

*Surrogate Drawing* very literally involved projection through the mechanical projection of images from sketchbook to wall. However, acts of 'feeling into' occurred, not just by looking at something or somewhere else, but by being inside the drawing process, as a constituent part of an eventful, distributed spatial assemblage, involving many bodies all at once. Arguably, and demonstrably in

the first-person accounts below, moments of empathy abound. However, the drawing process could not be reduced to simple acts of empathy or projection, because so much more was happening and interceding; nor could the drawing become a surrogate for any one person's creative impulse.

This collaborative drawing process rendered visible a network of agents, by both adding more drawers to the dialogue and adjusting the physical environment to 'thicken' the plane of the drawing. The assemblage stretched the arm's length, cracking it open to collaborations within an open network, proving to be far more complex than a strictly 'surrogate' relationship where drawers 'stood in' for another drawer. Influences entered a web of interrelations, involving multi-directional prompts issued by all parties, as well as responses to the physical space, the media, the music, and so on. As such, this drawing experiment broke down the projective, translational model of drawing: the distribution of stimuli was not only across bodies, but commissioned the environment, both immediate and distant.

Just as the idea of drawing as translation and transference became disturbed by the *Surrogate Drawing* assemblage, so did the idea of empathy as a projective transmission between entities, raising questions about what empathy becomes when it shifts out of a one-to-one relationship.

## part 2: the drawing event

This section offers some access to the experiential and perceptual differences of each

author, in order to demonstrate the degree to which the complexity of interrelation so far exceeded anything reducible to projection or translation, even while (and perhaps because) a mechanical projection device was a key player. These post-drawing reflections start with the two authors who took on the wall-drawing, followed by the author with broken finger, who drew at the televisualiser, and finally, the first author of this article, whose role in the experiment was recorder/analyser/observer.

### Beth George

There is a very physical immersion in the drawing. First, this occurs through scale, as this is much larger work than I would usually create and the impact of working across such a broad surface is that you can only see part of the piece at any given time. This added a sense of autonomy in the making—you worked with the blinkers on and had to step away to gain comprehension of the whole. This proximity to the drawing resulted in feeling like I was walking through it—touring it—and this was amplified in the second drawing which felt pictorially like a landscape.

The second form of immersion is due to the fact that Kate and I were physically sandwiched inside the drawing. I was responding to marks directly in front of me that were coming from behind me. This put me 'inside' the visual rays between Michael and the picture plane. I am reminded of the section in 'Translations' where



**Figure 06:**  
detail of *Surrogate Drawing 2*: a  
sense of emergent landscape. Beth  
George, Michael Chapman, Kate  
Mullen, Pia Ednie-Brown and an  
ecology of nonhuman agents, 2019.

Robin Evans describes the construction lines moving between an object and its representation, and questions just how long and abstract these lines could get. It feels as though we lived out this scenario, and ‘made space’ within it for distortions and unexpected interpretations to occur.

It was also emotionally immersive, and I found myself on various sliding scales, involving levels of ‘care,’ faithful recording and invention, satisfaction with my own drawing, enthusiasm for others’ mark making, enjoyment, boredom or dissatisfaction, high and low energy, even physical discomfort from the bigness and physicality of the process. I’d lapse in and out of focus on

Michael’s projected mark-making, and perceived varied levels of resonance between him and me, Kate and me, and him and Kate.

At a particular empathic moment, Kate seemed to exhibit frustration—her marks became a little noisy and violent, and my reaction was to move into the part of the drawing that frustrated her so she could leave it. Other times, we did what felt like a *do-si-do* by agreement, or would work past each other. Sometimes, a switch on the projector by Michael from white to inverted would re-energise me. Always, a shift in scale, an inversion, an appearance of his pen in front of me would affect what I was doing.



**Figure 07:**  
detail of *Surrogate Drawing 1*:  
picking up 'pores' from the wall  
surface. Beth George, Michael  
Chapman, Kate Mullen, Pia  
Ednie-Brown and an ecology of  
nonhuman agents, 2019.

The space and surfaces themselves impacted the process—tapping against the hollowness of the wall, dipping my fingers into fragments of charcoal dust on the concrete floor, feeling the slipperiness or grain of the page as it amassed more material. Tapping out 'rain' with my fingers involved the body and the resonance of the wall.



**Figure 08:**  
detail of *Surrogate Drawing 1*:  
'rain' from finger-drumming. Beth  
George, Michael Chapman, Kate  
Mullen, Pia Ednie-Brown and an  
ecology of nonhuman agents, 2019.

The setup itself broke down the fear of white space and diminished the onus of the individual drawer. It emphasised process over outcome, and was genuinely and richly collaborative. I think about how Walter Pichler might crumple his paper before creating a drawing—on the one hand to offer up cues, but on the other, I think, to devalue it—as in removing some of its preciousness, you relieve some pressure. We were, in this sense,

each other's crumples, and gave and received marks with openness and little expectation for their fate.

Perhaps most curiously, there were forms of reward in how we concentrated our own mark-making on parts of others' marks that resonated with us. Noises made, particular body movements, and the focus by someone else on a territory you had drawn were all forms of encouragement.

What resounds for me now is an accretion of memory—what Henri Bergson called the durational dimension, where the mind gives meaning to present action by recalling embodied memories. These are accessed during the making process, and in turn cement a new set of memories: those embedded in the media of the drawing itself. The durational quality of the work means that effort and attention are locked into the artefact. Certain territories in the drawing now resonate with the memories of that attention, and it is easy to focus on parts of the piece and recollect precisely my feeling-into them. Furthermore, this duration projects forward, as Kate and I, and Michael and I, work on new drawing projects, instances of *déjà vu* or recollections of the *Surrogates* persist in a wrinkling of feelings over time.<sup>15</sup>

### Kate Mullen

I view drawing foremost as a trust exercise—enacting, through the forging of lines, a trust in what will be brought forth in the exchange between one's bodymind and one's given situatedness. The act of drawing brings a degree of heightened consciousness to the body's innate sensorimotor intelligence and the perpetual, reciprocal dialogue playing out with the ecologies it inhabits. This exercise invited a departure from the styles we were each independently trained and versed in and, as such, a freeing of our approaches to movement and mark making occurred. The scrutiny of rational cognition was abated in favour of an activation of our emotional and feeling bodies. It was the contrast of contexts, disciplines and natural sensibilities between each of my co-drawers and I that, I feel, became as interesting and integral to the physiological impacts of the process as was our initial hypothesis.

In this sense, we ourselves—the four practitioners' bodyminds—parodied the array of artistic media that were spread before us on our work bench. It was an aesthetic decision as well as a pragmatic one for the diversity of media to remain monochromatic in tone. These parameters were instigated to, in a sense, 'frame' the action. Other than this, textures and marks were unrestrained except by the page, but even then, action bled on to the surrounding walls and debris and drips built up on the floor beneath us.

Beth and I became one in the act of shaping media on wall; our lines responding concurrently to Michael's, at first, and then to each other's as the narratives built up. A conflation of scales occurred, with Beth and I experiencing a sensation of being microscopic organisms. At this scale, one became more fully aware of one's total body within the spatiality informed by the microscopic lens. This was a negotiation between micro versus macro translations of one and the same thing, forcing the question: what do we not see before our very eyes or within our very flesh?



The idea of being 'inside' a drawing translates to being immersed in the act of production, of weaving, of recording, and thus truly 'in' the present moment—key to deep listening. This collaborative drawing practice proved to be a way of tracing a state of presence that cannot be documented in words or symbols. To attempt to do so would elicit one's removal from the state of presence that is of essence here.

Pia, as a fourth party in the role of observer, recorded her responses to the action and exchange by way of stream of consciousness note-taking, both raw and poetic. Her presence in this role unintentionally 'held space' for those of us engaged more directly in the drawing. As is spoken of in art therapy terms, Pia maintained through the duration of the performances a 'safe space' that, without knowing it at the time, permitted each of us to psychologically 'drop' into a state of presence beyond the conditioned, ego mind—a sense of safety a necessary prerequisite here. Once we were immersed wholly in the surrogate drawing process, Pia became almost like our 'surrogate mind's eye.'

**Figure 09:**  
Detail of *Surrogate Drawing 1*. Beth George, Michael Chapman, Kate Mullen, Pia Ednie-Brown and an ecology of nonhuman agents, 2019.



In occupying her steady, gentle state of observation, she permitted us drawers to enter a deeper state of fusion within the enactment; to more fully occupy the ecosystem of presence and play we had co-devised.

A practical negotiation between my body and Beth's body was another layer of activity and required sensitivity both physically and emotionally. I say emotionally, as into play came the awareness of Beth's marks—more fixed in my reality within the loop than Michael's more distant perch and changeable patterning. As Beth's marks accumulated, I was conscientious not to overly violate them (erasing, concealing or distorting them beyond recognition),

out of respect. Though equally, this also sprang from a genuine desire not to conceal the history of the drawing; to avoid any 'forgetting' of what had been woven sequentially upon the page, fattening our drawings' bodies layer by layer. Here a threshold could be tasted: the precipice of maintaining mindfulness and the cusp of seizing control of a drawing's properties. It grew increasingly difficult to resist any compositional authorship as a given session progressed, and one was acutely aware of this throughout the process. One of the prominent successes in conducting the process was, I feel, the inescapable self-awareness it elicited.<sup>16</sup>



**Figure 10:**  
detail of *Surrogate Drawing 1*. Beth George, Michael Chapman, Kate Mullen, Pia Ednie-Brown and an ecology of nonhuman agents, 2019.



**Figure 11:**  
detail of *Surrogate Drawing 3*. Beth  
George, Michael Chapman, Kate  
Mullen, Pia Ednie-Brown and an  
ecology of nonhuman agents, 2019.

### Michael Chapman

The drawings are constructed on an A5 sketchbook, placed on a televisualiser in a fixed location, with a camera on me. In front of me is a projector, and there is a window to the left. The sketchbook is also its own window to a world of projection which folds the visual field from the horizontal to the vertical. It is a representational hinge. The scale and edges of the projection become a frame within the visual field. As I alter the scale and size of the image, this frame contracts and enlarges. What happens within the frame echoes on the wall. And what happens on the wall, works

its way back to the frame. The wall and the sketchbook create a conversation.

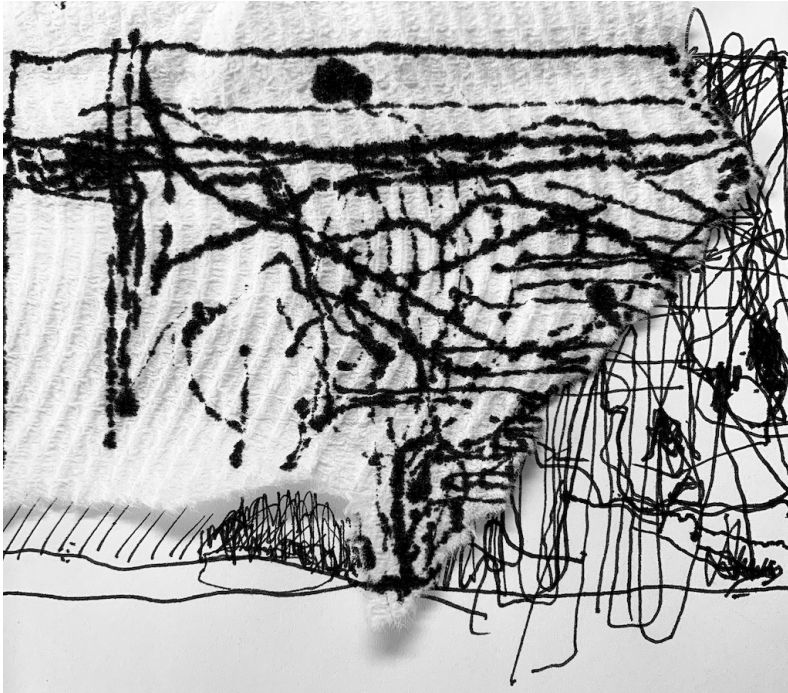
If empathy is a process of feeling into, there is a subsequent feeling 'out of' that the folding spatialisation of the projector creates. If Kate and Beth are inside this field, my hand is positioned outside of it. It is within the frame, but without the space. My pencil, or pen, is against its edge as it feels its way across the contours of space and time. The televisualiser provides a centre for my drawing, but also a periphery. This centre anchors me in space and time for the duration of the drawings. My

finger hurts. And I don't like cameras. It's cold. And I've hardly slept. I sit against the edge of the space, and draw within the centre of the frame. It is various forms of disembodiment and embodiment at once.

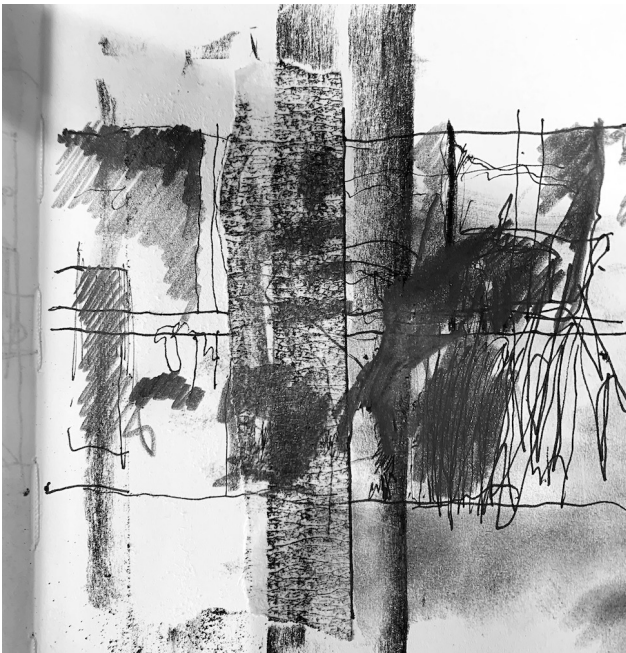
There is also the outside of this, in both space and time: the space outside of the gallery and the time outside of the drawing production. There is the space of the icy bike rides from the city to the gallery, through the pristine but foreign landscape of Melbourne and its lonely but beautifully alien ecology. There is the music that accompanies me on these rides, that links me to other spaces and times I have known. There is the emptiness of the hotel room where I am writing in the evenings, from its cramped and homogenous Laminex interior. There is the artificial window of my iPhone, which connects (and disconnects) me with Zurich, Newcastle, Sydney, and my friends, my dog. There is the sequence of drawings from Melbourne Zoo to Borobodur to Sukhothai, that begin to intrude on the fixed 'frames' of the surrogate drawings in the weeks before and after the demarcated time intervals of the drawings. They de-spatialise these drawings and de-temporalise them. All of these memories and experiences—the experience outside the frame—resonate with the space of the frame, the window, the boundary of the gallery, the start and end of the timer. The frame records the space and time, but

also the memories of space and time beyond.

The set-up focuses and concretises my position in a place and a universe. And anchors it to a chain of representational events. It is a space of connection and disconnection, where space and time are folded into an arbitrary rectangle in space. This is an existential space of embodied drawing. As I draw, I ask: Why am I here?<sup>17</sup>



**Figure 12:**  
Sketchbook image for televisualiser.  
Michael Chapman, 2019.



**Figure 13:**  
Sketchbook image for televisualiser.  
Michael Chapman, 2019.



**Figure 14:**  
Sketchbook image for televisualiser.  
Michael Chapman, 2019.

## Pia Ednie-Brown

I can see them dancing with one another and the paper/screen, but the process is so complex that cause and effect relations are difficult to discern. I had hoped to try to track interactions and the transfer of rhythms, exaggerations, etc., between one another. It seemed this might be a way for me to engage Daniel Stern's work on 'vitality affects'<sup>18</sup> in relation to the nonverbal exchange via the drawing assemblage, and to analyse the development of the drawings in these terms. My hopes were soon dashed as I watched a complexity that seemed to exceed the possibility of making (non-reductive) meaningful sense of what was happening through analytical means. The role of recording and holding the space took over. When it all began, Michael was focused on his drawing under the televisualiser and rarely looked up. When I commented on this, he looked up and, it seemed, hardly looked back as he started to work quite actively with the marks emerging via Beth and Kate. The dance had begun.

By the third drawing, my frustration concerning not being involved in the messy, material act of drawing became too much, and I started my own drawing process on an iPad screen. In part, this was also a response to the 'audience' as the third iteration took place in the midst of the gallery opening. There were already plenty of observers and comments being made, and my

colleagues no longer needed this from me—other than, at times, fielding the questions that came in so they could continue to focus on the drawing. When I took up my iPad pen, I tried to enter into the drawing as it was emerging. This was just a following or copying. And yet, this simple act taught me a great deal about the flows and feeling of the activity. I was entering the drawing process through another door: I was forced to move fast—following two bodies drawing large on the wall, one hand projected large, all folding into the small iPad screen. The telescoping back and forth was intense and dizzying. There was no way of keeping up the following or copying—I had to diverge and extemporise in ways that took me away but brought into the conversation differently. It was all rhythm and stroke and flow and tempo. It took me into the heart of my fascination with 'vitality affects' in a way that had been missing all along: this was entirely qualitative and highly complex. In trying to follow, I found myself 'feeling in,' but it wasn't a feeling into any one individual, but into an overall musicality—offering a way into the shared event via a mimetic dance.<sup>19</sup>

These first-person written accounts, collected together after the event, were revealing for us. Different perspectives on a shared event can demonstrate the degree to which access to one another's feelings, thoughts, and perceptions is limited. Something else was at stake.

The drawing process involved a more complex assemblage than immediately evident. Chapman draws attention to the felt presence of many spaces beyond the actual space at hand, folded into the one process, place and time. George makes note of the expanded temporal field at play, discussing the presence of duration both in the making of marks, each 'making recourse to past embodied memories,' and then how areas of the drawing later becoming sites of embodied memory. All participants discuss the shifts in negotiating one another, perceptions of the other, sometimes hinting at the very complex interpersonal histories and dynamics at play. References to drawing materials and bodily movement as cue and interaction give a sense of the dance-like quality of the drawing process as a more-than-human assemblage of activity. Non-verbal cues were at the core of this process and often difficult to account for, such as Mullen's comments about 'this life force pulsing through' and George's reference to 'energy' which 'is laid into the drawing.' This brings us back, then, to the appeal to mystery that so often arises when we try to explain what happens inside the activity of drawing, and to the sense of something hard to articulate in words.

Perhaps one of the more surprising outcomes of the process—through both the drawings event/s themselves and the protracted process of thinking it through well after it happened—is the sense that empathy also became as inadequate as the idea of drawing as translation or projective transmission. Projection was far from eliminated from the drawing process—it was literally embedded

in the assemblage after all—and empathy remains an adequate way to describe moments and aspects within the event. However, something more was happening here than the actions of projection, translation or empathy could capture—something more 'global.' If we wanted to look at ways out of the architectural 'ruts' of rationalisation, as discussed earlier, this 'something more' seemed both important, and in need of an alternative conceptual framework.

### **part 3: drawing as world-making: foaming Uexküll's bubble**

Jakob von Uexküll's discussion of the Umwelt—a given organism's perceptual life-world—became another way to think about the space of drawing and its relevance to the role of empathy, without the burden of 'the projective cast,' letting go of its particular 'enabling fictions.'

Uexküll's *A Foray into the Worlds of Animals and Humans*, is quite an extraordinary 'travelogue,'<sup>20</sup> as he calls it, through the Umwelts of many creatures. Through drawings and descriptive text, the book strives to sketch out many very different perceptual life-worlds, offering a window into empathising with otherness, while acknowledging the limits of that striving.

In his foreword, Uexküll describes the Umwelt very picturesquely as a bubble:

We begin such a stroll on a sunny day before a flowering meadow in which insects buzz and butterflies flutter, and we make a bubble around each

of the animals living in the meadow. The bubble represents each animal's environment and contains all the features accessible to the subject. As soon as we enter into one such bubble, the previous surroundings of the subject are completely reconfigured. Many qualities of the colourful meadow vanish completely, others lose their coherence with one another, and new connections are created. A new world arises in each bubble.<sup>21</sup>

Uexküll's study focuses on the entirely different perceptual life-worlds of non-human animals, starting (famously) with a detailed account of the Umwelt of a tick, moving on to describe how humans also occupy different Umwelts to one another. A plurality of co-existent worlds is not differentiated just by species, but also by individuals. The sense that we all occupy our own worlds, none entirely accessible by another, is related to why we might have a concern for empathy in the first place.

Drawing is interesting in relation to the Umweltian bubble: immersed in the act of drawing, a drawer arguably constructs a bubble of attention and perception around them, focused on the surface of the drawing, the implements of drawing, and the subject of drawing (whether a scene/object presented to them, or being imagined). This bubble of activity is not a closed-off containment but a somewhat paradoxical way of *opening up* to the world more acutely, more intensely, and with focus. The act of drawing something—say a creature—is often discussed as a way to develop higher levels of empathic connection

with that creature. Whether these claims concerning empathy are always or only sometimes true, those familiar with drawing as a practice of exploring perception know how the activity invites new ways of seeing/sensing, feeling and thinking. Drawing can help usher new perceptions into our Umwelt such that we evolve, or shift, ever so slightly through drawing, forging new connections. Drawing, as such, is not just an activity *in* the world, but is a process of active *world-making*. Echoing current understandings of the plasticity of the brain, this perceptual life-world is not given, but made and developed, and—importantly here—drawing can be understood as a process that fosters this creative world-making.

The drawing itself may convey to others something of that way of perceiving—a small window into that life-world—and the history of aesthetic theory has spent considerable energy thinking about what happens in this observer-artwork relationship. However, as discussed earlier via Evans, the active space of the drawing's coming-into-being is mostly discussed as inaccessible and mysterious. Uexküll himself suggests this is the case in his *A Theory of Meaning*: 'We can very well see how the painter's hand put one spot of colour after another onto the canvas, until the painting stands finished before us, but the formative melody that moved the hand remains completely unknowable for us.'<sup>22</sup>

The paradoxical status of the drawing process as both internal/mysterious and inaccessible, while also offering outwardly visible/expressive ways to access otherness,

is perhaps why all the various forms of what is considered 'drawing' retain ongoing cultural vitality. Along these lines, the painter offers a useful metaphor for Uexküll, because the activity sets up a kind of perceptual cradle of attention, in which something simultaneously inside and outside happens all at once. An interior world of perception can be partially entered through the artwork: a window onto the Umwelt.

In the situation of *Surrogate Drawing*, each of us, arguably, occupied (and were occupied by) our own, idiosyncratic, perceptual life-world. And yet, we were also all constituent parts of the same ecology of actions, which was a shared, relationally alive assemblage of activity. Our collective drawing experiment aimed to move multiple, mark-making hands, machines and materials into shared melodies. We set out to explore whether and how the assemblage cultivated empathy, allowing us to feel-into one another's Umwelts. Was it a collection of different melodies that came to overlap in fleeting moments, or did we find a shared melody? Or both? The paradoxical status of drawing in terms of embodying both the inwardly contained and outwardly expressed, an inaccessibility and a letting others in, as sketched out above, would suggest it was likely to be both.

This paradoxical situation of occupying both shared and separate worlds-in-the-making could be imagined, to resonate with Peter Sloterdijk's *Sphere's* trilogy,<sup>23</sup> as a *foam*: many bubbles that share adjacent, tensile and filmic surfaces of negotiation. Each bubble affects every other in a foam, and this drawing

process might be productively seen as an active foaming, with affects always on the move as part of the making. The surfaces, where one bubble of foam meets another, are precisely what define the shape of each bubble: every Umwelt is inflected by every other. If drawing alone can be aptly described in terms of an Umweltian bubble, drawing together becomes foaming. The distinction, however, does not necessarily hold. Even when a single human draws 'alone,' are they not joined by live, collaborative acts with a vast array of materials, images, durations, environmental influences, etc? Does this shift from the bubble to the foam reveal that the bubble actually never existed in pure form? Haven't so many enabling fictions—the mythologies of sole authorship, creative genius, translation and projection—held us hostage in lonely bubbles, left with the struggle of empathic connection?

### **beyond empathy: in-sympathy**

The creeping suspicion that something other than empathy was at stake in this experiment starts to flower in the midst of this foaming, which attains a complexity of co-dependent interrelations one can see as 'ecological!' The expansion beyond one-to-one correspondences, implicit to this set-up, broke down the projective geometries imagined in terms of mirror neurons and translation. In a sweet twist, the projector at the centre of the spatial assemblage acted out the projective cast in a way that was critically important but also revealed its own limitations: projection was enabling, but was radically exceeded.



Empathy was critical to the experiment, but was so far exceeded that it required recalibration, having become something like 'ecological-empathy'. This leads us toward the related but alternative concept of *sympathy*. According to Merriam-Webster, 'sympathy' is when you share the feelings of another; empathy is when you understand the feelings of another but do not necessarily share them.<sup>24</sup> Empathy involves transporting yourself into the place of another, emphasising translation and projection, whereas sympathy is from *sympathēs*: having common feelings. Importantly: what's common is not always personal, or specific to any given entity.

Sympathy, as Brian Massumi writes, '... is the mode of existence of the included middle.'<sup>25</sup> Sympathy, in other words, offers a way into the middling 'gap' between drawer and drawing, and drawing and building.<sup>26</sup> Through a related ontological bent, Jane Bennett has written about the significance Walt Whitman's writing gave to sympathy, which offers 'a non-modern sense of Sympathy as a natural or vital force operating below, through, and beyond human bodies or experience.'<sup>27</sup> Of value here is Bennett's attention to 'the question of how one might deliberately channel or harness this (onto) Sympathy ...' through 'One of the 'techniques – both literary and practical – that Whitman himself used [which] was "doting" or paying slow attention to ordinary objects, things, shapes, words, bodies.'<sup>28</sup>

'Doting' sounds a bit like 'drawing'. Drawing, if liberated from the projective, translational framing that architecture is so keen to clamp around it, may well be an indispensable

technique for cultivating sympathy, and architecting our way toward more affectively shared, ecologically inclined world-making.

We are conscious that in visual art practice, there is far more precedent for approaching drawing as experimental acts of 'world-making,' even if expressed in different terms. While rafts of techniques dedicated to perceptual experimentation, 'opening up' the hand-mind connection, and for leaning towards fluid, automatic production, can be located across art history, this project offered a provocation particular to the translational, projective, surrogate-like assumptions of architectural drawing, always tied, as it is, to spatial constructs. But even in visual art contexts, episodes of live co-creative collaboration as integral to a spatial assemblage are uncommon; the focus on sole authorship, restrained to human agency, is no less entrenched in art contexts than it is in architecture. The deliberate intention to distribute one act across multiple, more-than-human actors, defined this experiment, discussed here as a shift from a process held within an Umweltian bubble, into a foaming that raised sympathy as a way to understand the sharing of event-based feeling. How such a framework might invite a more sympathetic architecture is of ongoing concern.

## acknowledgements

*We would like to acknowledge that this drawing experiment took place in the Country of the Wurundjeri and Boon Wurrung people of the greater Melbourne region.*

## author biographies

*Pia Ednie-Brown* is a Professor of Architecture at the University of Newcastle. Her design practice, onomatopoeia, explores creative ways of unsettling anthropocentrism. Her writing and creative works have been published in diverse national and international contexts.

*Beth George* is an educator and practitioner in architecture, with a focus on drawing and urbanism. She is a Senior Lecturer at the University of Newcastle, and taught at the University of Western Australia and Curtin University. Beth researches broadly, through book chapters, articles and papers, competitions, exhibitions, and built work.

*Michael Chapman* is Professor (Design Thinking) in the School of Architecture and the Built Environment at the University of Newcastle.

*Kate Alida Mullen* is an artist, curator, arts facilitator and writer based in Naarm (Melbourne, Australia), where she is undertaking a creative practice-led PhD on the transformational potentiality of deep listening practices. Mullen is engaged in consultancy work with arts organisations Australia-wide, many of which are Aboriginal-owned, remote community-based corporations.

## notes

- 01 This issue was the subject of Nicholas Skepper's PhD, *Forms and Ideas Materialise: The Material Agency of the Design Medium in Architectural Practice* (Melbourne: RMIT University, 2017).
- 02 Robin Evans, 'Translations from Drawing to Building,' in *Translations from Drawing to Building and Other Essays* (MIT Press, 1997), 153-193.
- 03 Evans, *Translations*, 154.
- 04 Evans, *Translations*, 186.
- 05 Robin Evans, *The Projective Cast: Architecture and its Three Geometries* (Cambridge, London: MIT Press, 1995).
- 06 Evans, *Projective Cast*, xxv.
- 07 Evans, *Projective Cast*, xxxi.
- 08 Patricia Cain, *Drawing: The Enactive Evolution of the Practitioner* (Bristol: Intellect, 2010), 44.
- 09 Peter Cook, *Drawing: The Motive Force of Architecture* (West Sussex: John Wiley & Sons, 2008), 177.
- 10 Evans, *The Projective Cast*, 3.
- 11 Robert Vischer, *Über das optische Formgefühl. Ein Beitrag zur Ästhetik* (Leipzig: Herman Credner, 1873), translated as 'On the Optical Sense of Form: A Contribution to Aesthetics' in *Empathy, Form, and Space: Problems in German Aesthetics, 1873-1893*, eds. Harry Mallgrave and Eleftherios Ikononou (Santa Monica: Getty Center for the History of Art and the Humanities, 1994), 89-123.
- 12 Robert Vischer (1873), in Carol Jeffers, 'A Still Life is Really a Moving Life: The Role of Mirror Neurons and Empathy in Animating Aesthetic Response,' *Journal of Aesthetic Education* 44, no. 2 (Summer, 2010): 31-39, accessed 20 October 2020, <http://doi.org/10.5406/jaesteduc.44.2.0031>.
- 13 Joanna Ganczarek, Thomas Hunefeldt, Marta Olivetti Belardinelli, 'From Einfühlung to Empathy: Exploring the Relationship between Aesthetic and Interpersonal Experience,' *Cognitive Processing* 19, no. 2 (May 2019): 141-145, accessed 20 October 2020, <http://doi.org/10.1007/s10339-018-0861-x>.
- 14 Vittorio Gallese, 'Empathy, Embodied Simulation, and the Brain: Commentary on Aragno and Zept/Hartmen,' *Journal of the American Psychoanalytic Association* 56 (2008): 769-781, accessed 20 October 2020, <https://doi.org/10.1177/0003065108322206>.
- 15 Beth George, reflective text, Jan/Feb 2020.
- 16 Kate Mullan, reflective text, Jan/Feb 2020.
- 17 Michael Chapman, reflective text, Jan/Feb 2020.
- 18 Daniel Stern, *The Interpersonal World of the Infant* (New York, London: W.W. Norton and Company, 2000) (original publication 1985), and *Forms of Vitality: Exploring Dynamic Experience in Psychology, the Arts, Psychotherapy, and Development* (Oxford, New York: Oxford University Press, 2010).
- 19 Pia Ednie-Brown, reflective text, Jan/Feb 2020.
- 20 Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans, with A Theory of Meaning*, trans. Joseph D. O'Neil (Minneapolis, London: University of Minnesota Press), 43.
- 21 Uexküll, *A Foray*, 43.
- 22 Uexküll, *A Foray*, 203. *Merriam-Webster.com Dictionary*, 'What's the difference between sympathy and empathy?', accessed May 28, 2020, <https://www.merriam-webster.com/words-at-play/sympathy-empathy-difference>.
- 23 Peter Sloterdijk's *Spheres* trilogy is an obvious connection here that remains unexplored in this context but warrants further discussion at a future time. Sloterdijk is significantly influenced by the work of Uexküll, so the connections are strong.
- 24 *Merriam-Webster.com Dictionary*, 'What's the difference between sympathy and empathy?' accessed May 28, 2020, accessed 20 October 2020, <https://www.merriam-webster.com/words-at-play/sympathy-empathy-difference>.
- 25 Brian Massumi, *What Animals Teach Us about Politics* (Durham: Duke University Press, 2014), 35.
- 26 This publication deserves acknowledgment here, for its related work on sympathy and design: Lars Spoebroek, *The Sympathy of Things: Ruskin and the Ecology of Design* (Rotterdam: V2\_publishing, 2011).
- 27 Jane Bennett, 'Whitman's Sympathies,' *Political Research Quarterly* 69, no. 3 (September 2016): 615, accessed 20 October 2020, <https://doi.org/10.1177/1065912916656824>.
- 28 Bennett, *Whitman's Sympathies*, 615.