idea journal

co-constructing body-environments

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.

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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.

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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/.

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in this issue

introduction: unknowingly, a threshold-crossing movement

Julieanna 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.

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.'[01] 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.[02]

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.[03]

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.[04]

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.

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.

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.

notes

01   Jondi Keane, 'An Arakawa and Gins Experimental Teaching Space; A Feasibilty Study,' *INFLeXions* 6 (2012), accessed 29 October 2020, 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.scotthyoung.com/blog/2018/04/12/the-art-of-unlearning/.

04   Young, 'The Art of Unlearning.'

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enacting bodies of knowledge

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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.

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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*)[01] 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).*[02] [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.'[03] 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

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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,

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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).[04] This counterbalances prominent voices such as James Elkins,[05] 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[06] and subsequent essay (included in this issue) in which she discusses her personal interaction with Elkins' critical response to her PhD and subsequent book.[07]

As already noted, there are many reasons why the arts have a dysfunctional relationship with historical modes of research.[08] 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'.[09] 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[10] and emphasising that 'these practices need to be brought into the fold of cognitive science research on mindfulness practices.[11]

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.[12]

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

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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.[13] Slowing down also opens spaces for non-linguistic meaning making that is central to aesthetic experience and aesthetic knowledge production.[14] Pink champions visual and sensory ethnographic research, which has gained traction due to its emergence from visual and kinaesthetic artistic practices.[15] 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[16] terms the moving body thinking, or as Beverly Farnell[17] 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.[18]

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.[19] 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.

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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.[20] 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.'[21]

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.'[22] 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

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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*).[23]

Creative practices are said to exploit perception as action through what Alva Noe calls the 'strange tools'[24] 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.[25] 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

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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 re-petition 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 ftheories of cognitive development and epigenesis to describe how any component in a system is not independent of that system.[26] 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.'[27]

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.[28] 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 'languaging' of their practice. When knowledge is acquired through doing, making, moving, or bringing one thing into relation with another, the impact does

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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

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to formulate new tools, paradigms and ways of thinking.'[29]

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 Icograda, design scholar Dora Dias[30] referred to comments made by a dominant voice in design history, former Icograda 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,

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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.

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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*.[31] 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

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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 sprcific areas of study, gave way to intersecting practice and perspectives. This decision to focus on knowledge practices allowed dialogues to emerge.that explorie 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.[32]

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

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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.[33]

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

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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'[34] 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.

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acknowledgements

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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,

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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).

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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 0ctober 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, Biomedia, 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.

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 Icogradalatinoamérica80,' *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/.

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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.