

REVIEW



Karen Barad as educator: agential realism and education

Karin Murris, Singapore: Springer, 2022.

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Murris declares up front, 'This is not a book *about* Barad'. However, *Karen Barad as educator: Agential realism and education* is a significant contribution to engagement with, and understanding of, Barad's agential realism. Barad's feminist and human/more-than-human entangled theoretical physics is profoundly relevant to people/world relationality, and is therefore important for environmental education, as we face unprecedented challenges. The connected nature of those challenges means that in one way or another every area of knowledge and education is related to the environment. An embodied and relationally entangled approach to knowing, not just about, but with, other species, ecosystems, weather and climate, offers learning for us all, and agential realism provides a foundational ethico-onto-epistemology. Barad's work needs to be widely accessible, and Murris supports and enables this opportunity for environmental educators, indeed all educators.

Murris' book invites the reader in and provides possibilities and opportunities for participating in an agential realist approach to teaching and learning. Any idea of a critical review of Murris' book dissolves into relational engagement with the knowledge it communicates, stimulating consideration of all educational and knowledge making practice, and why it matters. This effect is co-generated through the book's well-crafted enactment of Murris' own relational engagement with Barad and their work and through inclusion of examples of educational knowledge making/ practice that do not *apply* agential realism but *live* it. Agential realism, Murris explains, is not a representational knowledge that we can look at from the outside or use as a tool. Rather, it is a reworking of knowledge, teaching and learning, which includes a reworking of identity, relationship, space and time in the coming-into-being of the world. Barad's agential realism conceptualises life as participatory and performative, and Murris enacts this ethico-onto-epistemology in her book, through the lens of education. The book itself is 'iterative and intra-active' (p. 3).

The process and experience of enacting agential realist education is demonstrated by Murris in a few different ways. First, through the well thought out and integrated structure of the book. Engaging the reader with the ontological perspective of knowledge as embodied and relational immediately invites us to become entangled with Murris, Barad and agential realism. Any dichotomy, on Murris' part or indeed Barad's, of expert and beginner, or them and us, is bypassed,

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with Chapter One and Chapter Two establishing the multiplicity of co-generative subjectivities involved. It soon becomes clear that we are in the intra-active company of all the people in Murris' Slow Reading group, all the more-than-human experiences and entities that have contributed to her writing, and the multitude of contributors to Barad's work as well. Awareness of the multitude of agentic co-participants in the life that is *me the reader* expands in the process of reading this section of the book.

Murris uses the concept of *knotting* and the pronoun *iii* to express this broad relationality and encourages the reader to let go of fixed ideas, to become nomadic and perhaps even lost, as we adventure into Barad's work. Barad's scholarship is not always easy, ('mindboggling' is the word Murris uses (p. 15)), as their work is diffractively patterned through with meaning and the dynamic potential of becoming. This book is helpful in opening up Barad's concepts and terms as there are always more layers of understanding to experience. By moving beyond the reductive tendencies of critical approaches to knowledge, we can relax into Murris' intra-actions with Barad and may be able to join her in a diffractive engagement of co-arising knowledge, to then express in our own educational thinking, theorising and practice.

Chapter Three moves deeper into the theory of Barad's work, guiding the reader by walking through it with us, taking care to explain the concepts of agential realism in a range of different ways. Murris introduces a key example of agential realist educational practice at the end of Chapter Two and then weaves it through Chapter Three. This enables the concepts and their definitions to 'breathe as responsible practice' (p. 73) by 'working with them' in a practical way at the same time as 'opening them up' (Barad, in Murris, p. 73). The agential realist concepts explored include apparatus, causality, agency, phenomena and de(con)struction and connects them all to the response-ability of ethical enactment of knowledge and agency.

Murris uses the concept of knots to make sense of the intra-active relationality involved in these concepts. The idea of knots invites the reader to consider ways of relating to Barad's work, through enacting agential realism in the materiality of every day educational practice. Murris' knots are a way of sedimenting the world that does not entail closure, as knots can be undone and reknotted. They are not separate points, but are diffractively intra-connecting, each co-creating the others. There is a helpful example in the book where young person Zuko, a photo, Lego bricks and the camera are each knotted specificities within the broad phenomena that includes his parents, teachers, curriculum, research questions and process, and all material apparatus, and now Murris and the reader as well.

Chapter Three *is* a bit intense, and satisfyingly stimulating, as we engage with a different understanding of human, the body, time, as well as theorising, thinking and knowledge making. Gender, sexuality, disability, race and age are included through exploring how categories and bodies are discursively constituted, as well as ontologically co-generated through the cutting-together-apart of intra-active relationality. This is way beyond applying human meaning to difference, it is differencing itself as ontological. Murris' entire book reminds the reader over and over that we as researchers, educators and readers cannot be outside of these dynamics.

Murris enables the readers' intra-action with Barad's work, by bringing the theoretical physicist into the book, not as the ultimate voice, but as fellow de-centred subject who continues to learn. In this way, Murris dismantles hierarchies of authority, away from knowledge as capitalistic resource, by enacting a we-really-are-all-in-this-together perspective. Even as a relative novice in my understanding of Barad's work, I feel included and welcomed by Murris, like I/we/us too can participate in the ethical reworking of space, time, causality and subjectivity, in a way that can contribute to agential realist education, and perhaps to what Murris describes as our collective survival. As Barad states, 'knowing does not come from standing at a distance and representing, but rather from a direct material engagement with the world' (2007, p. 49, italics in original).

Chapter Four expands agential realism in greater detail, with a focus on why all of it matters. There is particular engagement with the justice to come of de/colonisation with more examples to illustrate knowledge as practice. Barad's relational concept of diffraction is enacted by Murris'

examples of non-linear, topological methodology for engaging with students, materials, moments and learning within educational practice. Coming into teaching and learning with an openness to new and unexpected patterns of diffractive relationality is described by Murris as *childlike*, and as an undoing of the hierarchical dichotomy of educator and learner, teacher and student, in the generation of knowledge. Rather than something that happens *to* children, learning is freed to its rightful place as lifelong and lifewide, as broadly relational with and within the dynamic phenomena all around us.

I must admit I wanted Murris to provide a template, to tell me exactly how diffractional methodology is done, while at the same time it is made clear that each situation and moment is a new configuration of everything, and that paying attention to it all and engaging from the current complex intra-relationality *is* the whole point. We cannot force the indeterminate to be fixed and predictable by following a representational formula. The realisation that as a person, educator, researcher and academic I am co-generating the patterning of the world I am engaging, opens me to the collective intra-active agency alive all around. This effect is why this book matters.

Murris includes a further range examples at the end of Chapter Four, including generating relationally inclusive knowledge with other-than-human beings and a table contrasting reflective and diffractive assessment, which grounds the entire work further in practice. All of the examples challenge the object/subject dichotomy evident in abstract knowledges and offer inspiration for relationally focused environmental education approaches and assessment. Then there is a blank page and humbling words on the following page, words about nothingness, that diffract with my own wondering whether as educators we really can make a difference. It is an interesting note to end on — a little disconcerting — but in a zen koan sort of way that certainly discourages any grasping of Barad, Murris or agential realism, as having neatly contained answers. Murris reminds us that we must look instead to the immanent livingness of diffractive exploration and participation. Agential realism is important for reconsidering and reconfiguring what it means to be human in the world; it 'enables a very different kind of science', which is no small undertaking (p. 47). *Karen Barad as educator: Agential realism and education* engages with this undertaking, and also reconsiders and reconfigures teaching and learning in the process. I for one will be rereading Murris' book, with each reading no doubt co-generating different patterns of understanding.

Reference

Barad, K. (2007). Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning. Durham, NC: Duke University Press.

Dr Shae L. Brown is a grandmother and indigenist scholar who uses pattern thinking and understanding as a language and educational strategy for the teaching and learning of complexity competence. Shae's Complexity Patterning is a contribution to transformational education for positive futures. It is based in Indigenous Knowledge and Barad's agential realism, as well as complexity science. This year Shae was awarded the International Society of Systems Science, Spirit of Sir Geoffrey Vickers Award for their contribution to complexity science. Currently, Shae is exploring options for creating curriculum for pre-service teachers and for students of all ages.