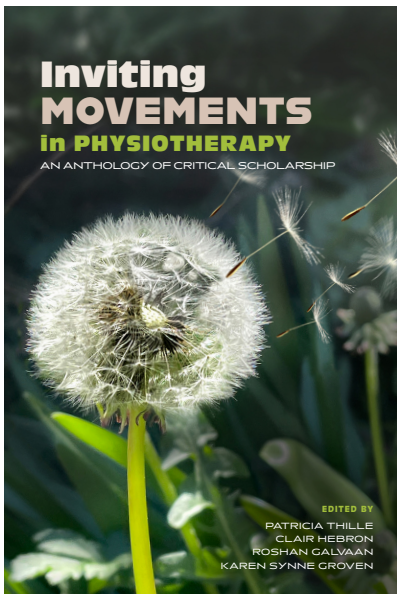

Inviting movements in physiotherapy: An anthology of critical scholarship

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Chapter 11

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David A. Nicholls, Matthew Low, and Filip Maric

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ABSTRACT:

This chapter offers a radically revised concept of therapy. Therapy is a concept that lies at the heart of what it means to be a physiotherapist, so it seems surprising that the profession has never defined what the therapy in its name actually means. In recent years, physiotherapists have been looking for new ways to express an expanded idea of their profession, but these have concentrated on more humanistic forms of practice. Here we take a different, post-human approach, understanding therapy as a universal process common to all entities. We begin by critiquing the paradoxes and inconsistencies evident in physiotherapy's present understanding of therapy and then contrast this with an approach drawn from the writings of Gilles Deleuze. We conclude that therapy is a much more inclusive and complex phenomenon than the profession has previously understood, and suggest it has the potential to radically transform the physical therapies in the future.

CHAPTER 11

The possibilities for a posthuman physiotherapy

DAVID A. NICHOLLS, MATTHEW LOW, AND FILIP MARIC

Background

For the longest time, concepts like touch, movement, function, and rehabilitation have been welded so tightly onto the heart of physiotherapy's professional identity that they have formed an iron nucleus that has been highly resistant to change. In the broadest sense, rehabilitation means the same to the profession today as it did after World War I; therapeutic touch still means effleurage, petrissage and tapotement; and movement is still confined to the biomechanical human body. But perhaps the word "therapy" is the paradigm case of this stability. Therapy gives the profession half its name, and the term still means the treatment, healing, repair, and rehabilitation of illness and injury, just as it did when it came into popular use in the mid-1800s. But is this adequate for physiotherapy or health professional practice more widely today? It is our contention that the stability of concepts like touch, movement and therapy have undoubtedly given physiotherapists a sense of security, but they have also stifled the growth and development of the physical therapies[1] and made it hard for the profession to adapt to the changing nature of health and healthcare.

In this chapter we want to show that contrary to the image put forward by the profession, a concept like "therapy" is anything but fixed, stable, or immutable. We want to show that therapy is infinitely more complex, dynamic, and liminal than we have allowed for in the past. To do this, we

begin by critiquing the deep anthropocentrism, or person-centredness, inherent in the profession's approaches to therapy, before looking at the recent posthuman "turn" in philosophy and social theory. We explore some of the key ideas embodied by posthumanism before imagining how these might inform a new kind of physiotherapy. Our point in doing this is to show just how radical and lively concepts like therapy can be and, in doing so, open the possibilities for much more mobile, responsive, and liminal forms of physiotherapy.

Introduction

How should we understand how the concept of therapy works currently in physiotherapy, then? To begin with, we suggest that one of the most fundamental and yet perhaps fundamentally mistaken assumptions about (physio)therapy is that it is performed *for* people *by* people. It is fundamental because the image of a human therapist assessing and treating a human client/patient appears throughout the profession's many curricula, legal statutes, journal articles, textbooks, and promotional media. The human therapist-patient dyad has been one of the defining features of physiotherapy's professional identity. But is this a true, fair, or accurate representation of "real" physiotherapy?

While it might be seductive to think of physiotherapy as fundamentally humanistic, there is clearly more to the nature of physical therapy than person-centred care. Consider this simple case study, for example, that could be extrapolated to almost any physiotherapy encounter: In a high dependency unit, a physiotherapist, Alex, manually hyperinflates a patient's collapsed and consolidated lung segment. In this scenario, where exactly does the therapy "reside"? Is Alex the therapeutic agent, or is it the air pressure, the alveolar tissue, the material making up the Ambu bag, or all of them combined that does the "work" of therapy? Is the therapeutic effect entirely of Alex's making? Or perhaps therapy is merely an expression of what the patient feels. If so, can there be any therapy performed if Mika, the patient, is unconscious? When can we say Alex's therapy begins? Is it with the first thrust of air, in the planning 10 minutes ago, or in Alex's prior training and experience? And if Mika's recovery takes weeks, when can we say Alex's treatment ended? Additionally, we should ask if therapy is always meant to be "good"? What if we must hurt or damage one thing (a tissue, a belief, a physical capacity, or

a personal relationship, for instance), to make something else better? Can therapy actually be "bad"? What about death? Can death be therapeutic if it ultimately brings about a new healing/recovery? (Afterall, isn't the death of tissues a natural part of the healing process?). What these confounding arguments suggest is that the therapeutic part of physio*therapy* is more complex than the profession has previously acknowledged.

It is our contention that physiotherapists have always implicitly understood this, but that the full implications of this understanding have never been realised. We know that physiotherapists have always seen therapy as more-than-human because they have always centred their practice on the biochemical and neurophysiological processes responsible for healing; on the many technical, electro-physical and manipulative modalities used in practice; and the socio-political healthcare context in which physiotherapy resides; none of which are entirely reducible to "personhood." At the same time physiotherapy has also been increasingly criticised for its long history of *de*-humanising practices: of over-emphasising pathological anatomy at the expense of human experience; of organising itself around body regions (musculoskeletal, neurological, and cardiorespiratory physiotherapy, for instance) and valorising this biological reductionism in its professional expertise and specialisation structures; of objectifying people as "the stroke patient" and "the problem shoulder"; of normalising ability and stigmatising disability; and of ignoring social determinants of health.[2] So, on the one hand physiotherapists call therapy an act of treatment, healing, repair, and rehabilitation of illness and injury performed by one person on another but, at the same time, the profession holds within itself a latent understanding of therapy as much more than this: as something more inclusive, more nuanced and complex.

In recent years there has been something of a humanist turn in physiotherapy, with the growing focus on person-centred care, psychologically informed practice, and the growth of qualitative/interpretive research (Mudge et al., 2013; Melin et al., 2019; Ahlsen et al., 2020; Beales et al., 2020; Cosgrove and Hebron, 2021). This turn has given much greater credibility to our client's/patient's subjective lived experience; something that was often ignored in older, more paternalistic, objectivist forms of physiotherapy. But it has done little to expand our understanding of therapy beyond human behaviour, cognition, and (inter)subjective human experience (Nicholls et al 2023).

And somewhat ironically, just as physiotherapy has embraced its humanistic side, humanism itself has begun to lose its appeal (Nealon, 2021).

In recent years, a growing body of cultural, historical, philosophical, political, and social theory has turned a critical eye on the humanism that has dominated Western thinking since the Enlightenment.[3] The Enlightenment created the idea that human beings were autonomous sovereign entities and, by virtue of their conscious self-awareness and cortical complexity, apex social actors, sitting above animals, plants and inanimate "things" in the great chain of being. And it is this human hubris that has come in for such strong criticism in recent years, not least because of the impending climate catastrophe, and our history of colonisation, genocide, patriarchy, and perennial warfare (Irigaray and Marder, 2016; Morton, 2018). So, physiotherapy's turn towards the human makes sense in the evolution of the profession beyond its traditional affinity with seeing the body-as-machine, but it is also somewhat out of step with a cultural Zeitgeist that now sees anthropocentrism as increasingly problematic.

Some humanists have countered that the answer to these criticisms is to strive for better, more sensitive, and attuned people: humans with more empathy and relational understanding; greater equality or personal freedom; stronger government or open markets; less greed and more sharing. And these sentiments can be seen clearly in some of the recent physiotherapy literature (Hutting et al, 2022; Miciak & Rossettini, 2022; Øien & Dragesund, 2022; Rodríguez-Nogueira et al, 2022). But all these approaches also retain the human in the centre of the frame, and we believe this will ultimately prove inadequate to explain the full nature of the "therapy" at the heart of our practice. As the example above hinted, there is clearly more going on in therapy than can be explained in humanistic terms. Fortunately, physiotherapists aren't the first to look beyond the human for more inclusive interpretations of therapeutic theory and practice, and recent years have seen an enormous groundswell of interest in posthuman philosophy.

Posthumanism

Over the last 30 years, posthumanism has become perhaps the largest field in contemporary theory and philosophy. Posthumanism is less about the "death" or complete removal of the human from philosophy, than a concerted attempt to de-centre human identity, freedom, health, rights, and

traditional concepts of human *being*, and focus instead on the agency of *all* things, entities, objects and forms.

Posthumanism has many strands and several different "schools," including critical posthumanism (CPH), feminist new materialism (FNM), actor network theory (ANT), and object-oriented ontology (OOO) (Latour, 1999; Barad, 2007; Bennett, 2009; Grusin, 2015; Harman, 2018). These approaches variously emphasise human intersectional entanglements with the more-than-human and the capacity for entities to affect and be affected by others (CPH and FNM); human-non-human social networks operating symmetrically across a dynamic and fully flat ontology (ANT); and entirely realist ontologies that explore the way objects always do more than we can know (OOO).[4]

Perhaps the philosopher most associated with posthumanism though is Gilles Deleuze. Deleuze (1925–1995) was a French continental philosopher and contemporary of Foucault, de Beauvoir, Derrida, Merleau-Ponty and Sartre. Deleuze's work is widely considered the most thoroughly articulated philosophy of posthumanism, expressing concepts as diverse as time and duration; how entities assemble, form, and decay; the nature of creation, immanence and becoming; images and movement; difference and repetition; virtual intensities and affect; sedimentation and lines of flight; logic and sense; memory and nihilism; plurality and univocity. How can we mobilise Deleuze, then, to rethink the nature of therapy?

Key features of a Deleuzian post-human analysis

Deleuze's writings are often perplexing and his philosophies complex, and we can do scant justice to their breadth here. But there are perhaps four key principles we can use in thinking about the nature of (physio)therapy.

Emphasising the more-than-human rather than human exceptionalism

This is arguably the first principle of posthumanism. Along with others, Deleuze offered an "intense and harsh critique of classical philosophical understandings of the human as separate from nature and other beings, and of the human as superior to other beings in virtue of possessing reason" (Daigle & McDonald, 2023).

This critique has, at times, been directed at some surprising centres of power, including the "Catholic Church, [in] corporate pan-humanism, belligerent military interventionism and UN humanitarianism" (Braidotti, 2019).

But we have also seen it "in the progressive Left, where the legacy of socialist humanism provides the tools to re-work anxiety into political rage" (ibid). It would be wrong then to think that posthumanism was only concerned with the modern, Western, science-based narrative of the autonomous sovereign human. It would be perhaps more accurate to say that it was acutely sensitive to narratives that promote *any* ideas of an endangered human being, and any ethic that privileges human flourishing.

Rather than attempting to make better humans, as many critical, cultural, emancipatory, existential, humanistic, medical, person-centred, and relational approaches do, Deleuze's concern is to develop a philosophy of thought, life and abundant creativity, and the endless repetition of difference in all things, animate or inanimate, imagined or real, actual or virtual. He asks, "what of the nonhuman or the inhuman exceeds man? What forces run through humans to connect them to animals and plants, to incipient brains, to milieus and atmospheres, to geographical and historical events" (Roffe & Stark, 2015, pp. 18-19). In other words, "what forces make the human exceed itself?" (Ibid).

Becoming not being

Nothing in man — not even his body — is sufficiently stable to serve as the basis for self-recognition or for understanding other men (Foucault, 1977).

Identity and being are concepts that are so ubiquitous in Western thinking that it can be hard to imagine a philosophy working in any other way. But Deleuzian posthumanism attempts to do exactly this, by "fractur[ing] the assumed coherence of the world" (Brown, 2020). Posthumanism critiques all the places where "being" is taken-for-granted, and many of these areas form the very backbone of our work in healthcare. Be it in science, with its concern for taxonomy and diagnostic clarity; in phenomenology with its concern for the human (inter)subjective "entanglements with the nonhuman" (Roffe & Stark, 2015, p. 19) and human being-in-the-world; or in social theory with its socially constructed identities based on ability, ethnicity, gender, and social class.

"Being" imposes a temporal and spatial stability on things. And yet, this stability is illusory. In Deleuzian posthumanism, being tells us nothing about the boundless, relentless, and unfathomable creativity (ontogenesis); that is at work in the cosmos: a process that expresses the endless repetition of

creativity through difference rather than sameness; through ongoing becoming rather than static being;

> It's not a question of being this or that sort of human, but of becoming inhuman, of a universal animal becoming—not seeing yourself as some dumb animal, but unravelling your body's human organization, exploring this or that zone of bodily intensity, with everyone discovering their own particular zones, and the groups, populations, species that inhabit them (Deleuze & Guattari, 1987, p. 11).

Immanence not transcendence

In a similar way to "being," transcendentalism penetrates modern thought so deeply that it is both hard to see and hard to imagine otherwise. Transcendentalism refers to the belief that this life, this world is merely an imperfect substitute for a higher "realm," a deeper truth, or more perfect reality. Many religions, ancient and Indigenous cultures suggest that god(s), mythical deities, or malign fates govern life on earth; that there is some other form of other place where people go when they die. Enlightenment science called this superstition, but only succeeded in replacing one form of transcendentalism with another when it argued that there were mind-independent truths and natural laws governing the universe. Plato thought that there were ideal "forms" of everything we experienced in the world — us included — that were merely images of the realm of truth. Some argue that there are "universal" moral values, or social structures like class, gender, and race pre-determining people's lived experience.

So much of our understanding of health and illness has been built on the belief that we learn through a process of resemblance, in which we make sense of our experiences by comparing the present against a "deeper" taxonomy held in memory. We have come to believe that we build our world view based on the similarities we see with the things we already know. But Deleuze challenged this belief, arguing that this represented a transcendental and dogmatic image of thought — a challenge we will return to later.

Deleuzian posthumanism rejects the idea that there is something or somewhere else to which life points, emphasising immanence instead, in which nothing ever has to go "outside" to fully realise itself. Deleuze was not alone in this belief. Bergson used the concept of immanence to revolutionise our

understanding of time. Leibniz used immanence to refer to the most basic entity—the monad—that required nothing beyond itself to exist. Nietzsche spoke of life as a will to exist for its own sake, beyond all moral and religious justifications. And Spinoza saw "god" in all things, always immanent to nature.

Creation not discovery

While humanistic modern healthcare pursues ever greater forms of discovery (with its transcendent beliefs in universal laws and the search for natural truths that exist "out there" beyond our current understanding), post-humanists argue that we are being increasingly locked in the nihilism of instrumental reason. Modern humanism is a mindset that is already prepared to make sense of what it sees. But this is not what creates the "new" or explains the sheer, relentless, inexhaustible superabundance of the universe. It is the shock of the new, the violence of becoming, the danger inherent in surplus that is the engine of the cosmos. As Deleuze says, we are inside a thunderstorm, not a watercolour painting (Deleuze, 1993).

Creation, here, carries two related meanings. Firstly, it refers to the ongoing "deterritorialisation" of being that is the motor of creation; the constant repetition of genesis borne of difference; the endless movement, rupture, splitting, encountering, affecting, coupling, and decaying that accounts for the sheer profundity of life. Here, creation is a process, and hence why posthumanism is often considered a process philosophy. But creation also makes "things"; not just physical objects, but real or imagined people, places, concepts and ideas, banks and computer software, social structures like racism, the Catholic Church, and hope for a better future. There is a constant process of movement and becoming which results in the creation of entities. These entities, though, are only ever thought of as temporary sedimentations in the endless flow of becoming—like folds in a bedsheet or eddies in a constantly flowing stream—and are always subject to more movement and endless deterritorialisation.

With these broad analytical guides in place, let us tackle the question of what we mean by the word "therapy"; not, of course, what therapy *is* — because that would imply it has a static being or identity — but in the true Deleuzian sense, what therapy *does*.

The complex nature of therapy

How might the question of the nature of therapy be reconsidered in the light of posthuman theory? To return, first, to the etymology of the word "therapy" itself, the modern meaning of the term has its origins in Latin, Greek, and modern French, and can be traced to the 5th and 4th centuries BCE and the writings of Hippocrates. Hippocrates used the term "therapeia" to describe various forms of medical treatment, including physical therapies like massage, hydrotherapy, exercise, and diet. It is almost universally understood to be an intentional act performed by one person towards another with the goal of restoration, repair, or rehabilitation.

But here we immediately run into problems because, in the first instance, the definition assumes one person acting with therapeutic intention towards another. But therapy cannot *only* reside in the intention of the therapist because the therapist can never be sure that what they intended will necessarily be therapeutic for the other. And neither can therapy reside *only* in the perception of the patient/client because they may be un-conscious (as in the case study earlier) or unaware of therapeutic bodily processes below the level of conscious awareness (oxygen transport or motor neuron activation, for instance). So, even if we decide that therapy can only be under human control, we will still need a vast new vocabulary to explain all the infinite micro- and macro-therapeutic "events" taking place throughout the cosmos—a task that our human hubris has, to date, allowed us to largely ignore. However, if we eliminate the need for human conscious intention—whatever that may be—to be present for therapy to exist, we open therapy up to the more-than-human, and allow for a much broader view of who or what could be considered therapeutic. We allow for oxygen molecules, gas transport pathways, and air pressure to be therapeutic "actants" in the same way we think of carbon monoxide and air pollution as harmful.

It follows from this that if we allow an oxygen molecule to be therapeutic, should we call it a therapist? If not because we, again, want to reserve this particular noun for purely human actors, what term should we use for the former? (More to the point, what part of "me" *is* the therapist anyway, given that 60% of my body mass *is* oxygen, and we have already established that therapy cannot only reside in my conscious thought). In truth, we instinctively know that other entities can be therapeutic. Early morning sunshine can be therapeutic, so can a pet, a glass of wine, and a walk in the park.

And these things are not merely therapeutic *for us*. Apes relax by sunbathing, for instance, and sunlight triggers photosynthesis, which is therapy for plants as well as being the engine for life on earth. But there is also growing evidence of intentional acts of therapy in the more-than-human world — acts that were once only attributed to humans. Ants have been shown to care for ill or injured workers, bacteria and fungi show conspecies care by excreting toxins to protect others from threats, and plants heal tissue wounds and filter pollutants.

So, therapy cannot be said to lie in human conscious intention or perception, but neither is it necessarily a *purposeful* act because sometimes *not* doing something can be therapeutic. Equally, it is impossible to identify a specific moment when therapy can be said to begin and end. Sometimes therapy occurs at the speed of an atomic reaction, sometimes it operates over millennia. And, in terms of scale, therapy can be contained to the interaction between two sub-atomic particles, or it can envelop entire galaxies. The question of intention and purpose in therapy also needs thinking about. What *causes* therapy to begin or decay, or what influences the cast of actors enveloped in therapy, is unknown. But it *must* have some degree of intention built into it because without some therapeutic "purpose" we would be unable to differentiate a "therapeutic" moment from the myriad random collisions occurring endlessly throughout the cosmic.

Given the complexities of therapy, physiotherapy's historical affinity with the body-as-machine, and the profession's limited engagement with complex philosophy, it is perhaps understandable that physiotherapists might now struggle with the kind of vastly expanded idea of therapy being promoted here. But Deleuze again offers us a solution in his alternative to our conventional, dogmatic ways of thinking. Deleuze believed that the way we think about problems like the nature of therapy has laboured under a misconception for centuries, relying too much on concepts like identity, resemblance, and representation. In simple terms, scientific thinking encourages us to make sense of the world by comparing our experiences against pre-existing categories, taxonomies, and knowledge frameworks. These are largely implicit and unreflective sense-making processes based on pre-established schema or constellation of suppositions. They form a kind of intellectual orthodoxy that pre-conditions the possibilities and limits of thought, setting boundaries on what is reasonable and unreasoned, true, and false. Ergo, we have a

mistaken understanding of therapy because we have been labouring under a dogmatic image of thought.

And although these systems have become deeply entrenched in Western science — and more so, perhaps, in areas like healthcare, which must repeatedly assert its normative thinking in the face of human relational complexity — their origins date as far back as the writings of Greek philosopher Aristotle, who divided the world into identity categories such as genera, species, and individuals.

Therapy and the shock of thought

The dogmatic image of thought has led to two fundamental problems for Deleuze. The first is that it misrepresents the "real" nature of thought. In representational thought, nothing surprises us: everything we experience is made to fit some pre-digested, pre-existing category or taxonomy; "we engage with the placid recognizable world on our own account" (Roffe, 2020, p. 182). And yet, as Deleuze shows, we are constantly being surprised by our contact with the world. Indeed, it is the *shock* of events that forces us to think. For Deleuze, thought is an act of trespass, violence, strangeness, and enmity; an absolute necessity (Deleuze, 1993, p. 139). As Jon Roffe puts it;

> Not only is it not natural to think, the fact that we think about anything at all is only the result of having encountered something in sensation — something that is entirely alien to us, and certainly to our everyday recognition-based knowledge of the world — that forces us to think (Roffe, 2020, p. 183).

The shock that provokes thought is a germinal force that can come from anything: the scent of a particular perfume, the swerve of a bike in front of your car, or the chill of cold damp grass on an autumn morning. But the shock is not only a human sensation, but something experienced by all entities. A tiny ripple of flux in a magnetic field may mean nothing to "us" but it may be a profound shock to a circulating electrical charge. And this shock provokes "thought" in the particle, just as a spoiled chicken dinner does to us.

Deleuze also believed that our dogmatic image of thought encouraged us to compare our experiences to a catalogue of pre-existing identities. Thought in this way becomes entirely representational and falls back into

transcendentalism because the identities we compare our experiences with, exist in some kind of idealised form, "out there" beyond our immediate reach.

The second problem with the dogmatic image of thought is that the belief in representational thought failed entirely to explain how new things emerged. It could not explain how the cosmos had become quite so profuse and diverse. The dogmatic image of thought subordinated *difference* to *identity*;

> Representation fails to capture the affirmed world of difference. Representation has only a single centre, unique and receding perspective, and in consequence, a false depth. It mediates everything but mobilises and moves nothing (Deleuze, 1993, pp. 55–56).

To compare the two different ideas of thought, then, the classical western scientific view of thought asserts that our common-sense beliefs and opinions (doxa) are given a quasi-formalised basis in philosophy, and these establish implicit norms about the nature of thinking itself, which become the basis for how we encounter the world (Anjum, Copeland and Rocca, 2020). Deleuze, by contrast, argues that it is a shock that forces an entity to think (more on this below). But thought here is not an "event," like a point on a line, but a process: an endless opening to difference. Thus, thought is not about identifying what something "is" (its "being") but an act of nomadic deterritorialization; breaking free, becoming. But how can we relate these ideas of shock, difference, and becoming to therapy?

Bringing these various threads together, from the absence of a clear definition of what therapy means in physiotherapy; the profession's increasing humanism, and the concurrent turn away from humanism in philosophy; to the way Deleuze's writings show how complex therapy really is, our contention here is that physiotherapy has laboured too long under a dogmatic image of thought, and that we have a mistaken view of what therapy "is" based on a fixed, static, anthropocentric idea that does not represent reality. Our contention is that therapy is a distinctive, creative process, present in all entities—real and imagined, alive and dead—that can be best understood as a response to the shock of thought.

The shock of thought is Deleuze's expanded idea of the "consciousness" of all things. It is the moment when an entity encounters another and opens the possibility to the creation of something new. The shock of thought is a

crucial concept for Deleuze because it provides a way to break free from the anthropocentric idea that conscious thought only exists in humans. Deleuze argues instead that thought occurs whenever an entity—any entity—is "shocked" into responding. Thought, for Deleuze, is not the act of dogmatically following convention, or mere *human* consciousness—however we might conceive it (Berger, 2024)—but rather a trait common to all entities. The universe exists as an endless process of interaction between entities. Sub-atomic particles collide, people read book chapters, leaves shimmer in the wind . . . but not all interactions lead to new things. In fact, as Quentin Meillassoux has suggested, the fact that we have a universe at all, with all its fully formed animals, vegetables, and minerals is remarkable (Meillassoux et al., 2017). So, our contention here is that if entities respond to the shock of interaction by opening to movement, change, and the becoming of something new—however fleetingly the new entity persists—then this constitutes a therapeutic act.

Posthuman physiotherapy

This more-than-human ubiquity of therapeutic acts, or, therapy, sounds like a radical idea, but in day-to-day physiotherapy practice, we are used to responding to shocks of thought. Indeed, all therapy, to some extent, is a response to shocks (problems, challenges, disruptions, emerging possibilities, and so on). A client presents with acute low back pain, for instance, or an arthritic knee starts to respond to treatment; a neonate has a sudden drop in PaO2, an elderly client begins to have falls, a young newly paralysed girl begins to gain more use in her thumb and forefinger. . . . Every moment of every therapeutic encounter presents a change in state and the creation of new therapeutic possibilities.

In some ways we are not saying anything particularly radical here, then. Therapy is response to change. But what is perhaps radical—at least in the context of contemporary physiotherapy—is our contention that these shocks extend as much to oxygen molecules and articular cartilage, as they do to people's feelings of pain or fears of losing independence, or social systems like healthcare. But we would go further still because all of these are still fundamentally human entities. Our argument is that therapy is absolutely *not* confined merely to human affairs, but is present everywhere, all of the time. It is not just us humans that are therapeutic, but so are animals, plants, soil,

the wind, clouds, ideas, fictional story characters, fungal rhizomes, pollen, electromagnetic waves, baseball caps, facet joints, earthquakes, photographs of interior makeovers, bird flight, and so on, and so on.

This is because therapy is not the *property* of an entity, but a process that runs through all things, just like time, death, decay, birth and growth. Without therapy, entities throughout the cosmos would randomly collide with one another and never resolve into anything one might call a thing. There would be no water molecules, trees, or spider's webs, and we humans certainly would not exist. Therapy is the process by which entities resolve their collisions with other things into new entities. It is the way new things come into being; a process that can explain why we have mountains, sea birds and football matches, and not just randomly orbiting blobs of matter. Therapy, then, is no more nor less than creation at work.

Therapy is a "*positive*" process—in the sense that it creates new things—but this does not mean that it is inherently moral. Therapy can produce nuclear waste, violence and death just as much as it can produce "*nice*" things. The presence of therapy in itself does not imply moral virtue. The moral virtue comes in when entities *mobilise* therapy for specific ends, like treating patients with low back pain, or rebuilding the soil after forest fire (notice again that many entities need to collaborate here in the therapeutic work).

Our argument then is physiotherapists need a more inclusive, philosophically robust understanding of what therapy does, and Deleuze's concepts provide some compelling responses. Based on Deleuze's writings we suggest that therapy:

- Is a vast, universal process dispersed across the cosmos, involving all entities, not limited to humans
- Is directional and specific, meaning that it is not just the accidental collision between entities but a specific response to a shock of thought
- A real material process, not something that exists only in (human) language; nor just (human) symbols or signs
- Ongoing and relentless and can never be said to be achieved or concluded, although it can be harnessed by entities at times for specific purposes
- Morally neutral and unrelated to (human) virtue[5]

Perhaps it is coincidence, perhaps not, but many of Deleuze's concepts resonate strongly with conventional physiotherapy. Some have suggested, for instance, that his entire philosophy is a philosophy of aberrant *movement* (Lapoujade, 2017). Others emphasise his reference to machines as the basic working "unit" in the cosmos (Kleinherenbrink, 2018). Deleuze writes about smooth and striated space, co-opting the language of muscles, and his work is an ongoing revision to ideas about time and space. There are also parallels between physiotherapy concepts and Deleuzian terms like lines of flight, flux and flow. But in all cases, as we have attempted to do here with the concept of therapy, Deleuze radically reimagines what these ideas mean and applies them to a much more diverse and inclusive cosmology. The question arises then, could physiotherapists do this? Could physiotherapy expand its current understanding of therapy in a Deleuzian way? And if so, what would it mean for the profession?

Clearly, physiotherapists are looking for new ways to think about what therapy is and does. The repeated calls for the profession to become more holistic, biopsychosocial, critical, environmentally active, person-centred, qualitative, enactive, focused on care rather than cure, psychologically informed, intellectually curious and so on, are evidence of this. These moves suggest that the profession has laboured under a dogmatic image of thought for too long, and academics, practitioners and teachers are becoming increasingly aware of it. Our everyday practice is suffering, the scope of our research is suffering, and our ability to make a meaningful contribution to the world is too. That does not mean, however, that the transition to a new ontology of practice can just *happen*.

Any radical departure from customary practice in physiotherapy would have to make sense in the present and offer an attractive image for the profession's future. We run into problems, however, if we believe that we should revise our understanding of therapy in order to *rehabilitate the profession*. This should not be our goal. As we have argued elsewhere, our goal should be to nurture the physical therapies and make them available to everyone, not just those that can benefit from our ministrations (Nicholls 2022). But this raises a number of problems both philosophical, political and practical.

Philosophically speaking, elevating therapy to a cosmic process involving all entities runs the risk of being so totalising that it is difficult to see where therapy actually ends; what therapy does *not* do. An unlimited therapy could

easily become a proxy for life itself. So, a definition of a new therapy would need to be grand enough to account for what is really going on in the world, but not so grand as to be indistinguishable from other foundational concepts. We hope, therefore, that the bullet point list above goes some way to qualifying the limits of this new notion of therapy.

Speaking politically, a revised concept of therapy asks those within the profession to consider how much more diverse and inclusive physiotherapists want to become. Recent years have already seen the profession expand into areas like cognitive and behavioural psychology, public health and qualitative research, so there is clearly an appetite for growth. But the kind of radical revision being proposed here adds an order of magnitude to the profession's recent reform project. We know from experience that resistance can increase strength and that there is virtue in constraint induced movement, but if we turn these practical approaches back on our profession, how much freedom should we give to the revision of our core professional concepts? How much constraint would be appropriate to expand the profession's scope, but not too much? These are political questions, to some extent, and somewhat beyond the scope of this chapter. But our contention is that any attempt to think politically about the future for the profession must begin with a clear and robust understanding of what therapy does. So, our purpose in writing this chapter was to prepare the ground for a compelling idea for a new concept of therapy, such that political questions about what this might mean for the physical therapies can follow.

From a practical point of view, a revised idea of therapy might open present and future physiotherapy in a number of ways. Firstly, we would no longer need to restrict our professional focus to only humanistic forms of therapy; we could become the primary advocates for therapy in all its forms: human and non-human. The same would follow for other pivotal physiotherapeutic concepts like activity, balance, movement and touch (see Nicholls, 2022 for a recent analysis of how physiotherapists might think about touch differently). Movement, like therapy, is another fundamental feature of life: a concept well known to authors, biologists, cinematographers, musicians, sculptors and myriad others, but it is a field that has been restricted in physiotherapy since the profession's inception. But why shouldn't physiotherapists become the experts in movement—not just mechanical movements of the body—but in every sense of the word (just as they could become the advocates for *all*

forms of therapy)? There is no reason why our therapy could not become a practice grounded in engineering movement, diagnosing and removing barriers to creativity and growth. This might work in a variety of different ways. For instance, if we think about rain falling in the desert, we know that it can bring life. It is likely that most people could conceive of this as a therapeutic act. But does it remain therapeutic if the rain keeps falling? If there is too much rain and there are flash floods, death and destruction follow. It follows then that, as with any form of therapy, there comes a point when an entity no longer opens the possibility of new creation, and begins to close, restrict and reduce future creativity. Our role might be in mediating this process and finding opportunities to amplify creativity and restrict constraint.

A reader might reasonably argue that this goes too far: that physiotherapy has nothing to do with rainfall in the desert, and that our area of jurisdiction should remain within the boundary of the human body. Except that, as we argued at the beginning of the chapter, physiotherapy *never was* only concerned with the physical body. We have always been manipulators of inorganic compounds and ideas, social engineers and mobilisers of all kinds of movements, directors of electromagnetic waves and human-nonhuman connections. Given this, the claim that physiotherapy has always been about "people" is misleading. So why shouldn't physiotherapists talk about rainfall in the desert? What is there about physiotherapy that precludes such an expanded view?

An expanded, Deleuzian view of therapy also provides other opportunities for future physiotherapy. For instance, it could give the profession a clearer critical purchase; one centred on maximising therapy and movement as a social force. So many of the problems we now face in the world—be they local or global—derive from some people's desire to restrict the movement of others. In many ways, the story of human flourishing over the last 10,000 years has been the story of the appropriation, colonisation and enslavement of the many (natural resources, plants, animals, other human beings) in the interests of the few. And while this selective flourishing has benefited some, it is also responsible for so much suffering and has brought us to a global climatic and humanitarian catastrophe. To see this process through the lens of therapy and movement would give physiotherapists a unique opportunity to argue for the "rightness" of some cultural, political and social positions and decisions over others. Simply put, we could become advocates for any

approach that opens entities to greater therapy and movement, and resist moves that close them off. And thirdly, we might recognise that there is a much bigger consortium of therapeutic agents at play in the world than we have given credit to in the past. It is not only us, the educated and registered physiotherapists, that are doing the work of physical therapy. Besides all the other human acts of therapy being done every day, the world we live in is the direct product of a billion acts of unacknowledged therapy. A one square metre section of soil probably has as many therapeutic acts and actors in it as there are stars in the galaxy. We cannot claim that oxygen, ice, touch and osmosis are therapeutic only when we deploy them, when they are doing so much therapeutic work beyond our conscious awareness. Increasing our therapeutic allies, then, would have a profound effect on our appreciation for how central therapy is in the life of the planet (which might also assuage some of those who are concerned about the end of the physical therapies).

Arguing for a vastly expanded view of therapy is not, of course, arguing that *all* physiotherapists should be so pluralistic, only that physiotherapy should not preclude the idea simply because of a dogmatic image of thought and corresponding practice. At the same time, we are not advocating for an anything goes, laissez faire view of therapy or suggesting that therapy can be anything we want it to be. Quite the opposite in fact. We are arguing for a much more philosophically rigorous and systematic ontology of therapy than we have ever had before. And it is our belief that Deleuze offers just such a philosophy, one that can resonate strongly with the past, present and future of the profession.

Closing words

There are a number of reasons why we should consider such a seismic shift in the nature of physiotherapy, some of which are external and some internal. Externally, whether through the rise of AI and social media, a fracturing international political consensus, a growing unease with conventional moral values, or existential threats like climate change, the concepts that Western healthcare, and physiotherapy in particular, have been based on have been radically transformed in recent years. Either through the growing criticism of our latent anthropocentrism, our stigmatisation of non-normative personhood, our reductive beliefs about the nature of health and illness, or our scepticism towards technocracy, our beliefs about the nature of health and

the purpose of healthcare have shifted dramatically in recent years. Under such strained conditions, the possibility for a new understanding of therapy feels tantalising because if we can think therapy differently, we may be able to practice therapy differently.

At the start of the chapter, we suggested that physiotherapy being done *by* people *for* people is perhaps one of the most transparent and obvious things one can say about the profession. In recent years, there have been a growing number of calls from within and without physiotherapy to expand the profession's reach beyond its traditional affinity with the body-as-machine. And while we have seen a flowering of critical and existential scholarship over the last decade, almost all the literature has moved towards a new, even greater humanism. There have been calls for physiotherapy to become more person-centred, more (inter)subjective and relational, more embodied, more concerned with the conditions people are born into and live with against their will, more psychosocial. But at the centre of all these claims remains the idea of a sovereign, autonomous, indivisible human being.

In this chapter, we have attempted to resist this trend and think about what a Deleuzian posthuman concept of therapy might offer the profession. We have tried to take apart the concept of therapy and ask whether our conventional understanding of practice is too narrow and too limited by its person-centeredness. Our argument is that physiotherapists now need to radically revise the meaning we give to therapy.

How to do this and how to escape centuries of transcendental humanist thought will not be a small undertaking, however. Fortunately, there is precedent, and we have seen in recent years the emergence of a strong and growing body of work in the field of posthumanism. Pre-eminent here is Gilles Deleuze, whose radical philosophy of becoming and difference offers shocking possibilities for new thought in and around the physical therapies.

One might imagine that the physiotherapy literature might be awash with works on the nature of therapy, given that therapy makes up half of the profession's name. But this is not the case. Our hope in this chapter is to offer an opening corrective to this and stimulate debate within the profession about how (physio)therapy might be otherwise. Our goal here is not to map out how future physiotherapy might be practised as such, but to open a space for innovative future thinking about therapy and show that, perhaps, the physical therapies were always much deeper and wider than we had acknowledged.

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Notes

1 As elsewhere (Nicholls 2022), we purposefully distinguish the *profession* of physiotherapy from the *practices* of the physical therapies. In this sense, massage, exercise, tissue manipulation, electrotherapy and so on can be seen as physical therapies that exist within physiotherapy but also outside it.

2 See Nicholls et al., 2023 for a comprehensive review of these criticisms.

3 See, for example, Jeffrey Nealon's *Plant theory* (2016), Raymond Guess's *Changing the subject* (Guess 2017), Manuel DeLanda and Graham Harman's *The rise of realism* (DeLand and Harman 2017), Philip Goff's *Galileo's error* (Goff 2019), and Thomas Lemke's *The government of things* (Lemke 2021).

4 For a review of the major ideas and schools of posthumanism and a full reading list, see https://paradoxa.substack.com/p/posthumanism-compendium.

5 We're aware that in writing this list we have gone against our own advice and tried to define what therapy "is." We have done this here, however, only to "identify the object of our negation," in the traditional Tibetan Buddhist sense of the term (Garfield and Thakchöe, 2010). This approach is a common first step in continental philosophy when an attempt is made to break with the conventions of a dogmatic image of thought.

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