Research Article

A preliminary investigation of what occupational science is doing

David Turnbull[1], Ross Barnard[2]

1. The University of Queensland, Brisbane, Australia; 2. University of Queensland, Australia

We examine the case of a relatively new discipline, occupational science (founded in 1989). The aim is to come to a very general understanding of what occupational science is doing. This preliminary investigation paves the way for more specific inquiries into directions in occupational science research. The present aim requires us to focus on two sorts of experiential knowledge - phenomenological and empirical - the conceptual overlap of which occurs *in occupational science itself*. It is claimed that there is a need for conceptual clarification, particularly given that occupational science claims to be holistic. We turn to examine the various *meanings of occupation*, as they occur in this discipline. We then examine the particular legacy of Ann Wilcock, paying particular attention to her claim that occupation, conceived as a synthesis of doing, being, becoming and belonging, is essential to survival and health.

Overview of the article

In this article we examine a relatively new discipline, occupational science, which began with the ambitious twin goals of offering a challenge to the hegemony of biomedicine in matters to do with health (Yerxa, 1990), and of offering a pathway towards transformations in society, towards the fulfilment of the holistic vision contained in Dewey's political philosophy (Aldrich, 2018).

The article is divided into three sections. The aim is to come to a very general understanding of what occupational science is doing. This aim requires us to focus on the conceptual overlap of two sorts of experiential knowledge - phenomenological and empirical.

In section I, we discuss the specific ways in which occupational science approaches occupation, typically involving phenomenological and empirical approaches, with an overlap between them. The overlap includes transactional, critical, constructivist, narrative, interpretive and post-positivist

 doi.org/10.32388/9SU3TN.2

methodologies (Frank 2022; Kinsella, 2012). Section II examines the various *meanings of occupation*, as they occur in occupational science. Section III examines the particular legacy of Ann Wilcock (2007). We pay particular attention to her claim that occupation, conceived as a synthesis of doing, being, becoming and belonging, is essential to survival and health. This claim is integral to the occupational perspective of health (OPH). The OPH model exemplifies the overlap of phenomenological and empirical approaches in occupational science.

This article is a preliminary investigation of what occupational science is doing. Subsequent articles will take us into a more detailed examination of specific perspectives and directions for research, including transactional perspectives of occupation, the notion of 'synthesis' in the OPH, and the decolonial perspective as a critique of the colonialities embedded in human occupation. The overall aim is to make a constructive contribution to occupational science, insofar as it conceives itself to be a holistic discipline.

I

On the overlap of phenomenological and empirical approaches in occupational science

In drawing attention to phenomenological and empirical approaches to knowledge in occupational science, we do not wish, in this article, to delve into, or commit ourselves to any one of the vast arrays of theoretical and methodological alternatives in use. We confine ourselves to using these terms very broadly. We juxtapose both approaches, both involving human experience, in a preliminary way in this article, in order to make more specific proposals in articles to follow.

In bringing two sorts of experiential knowledge together, we find ourselves situated in the midst of an aporia. On the one hand, phenomenology is a response to the need for a subjectively meaningful interpretation of an immediate lived experience. The notion that occupation involves a description of that experience underpins articles in occupational science such as Pierce (2001); Barber (2004); Barber (2006); Reed, Hocking and Smythe (2010); Park & Kinsella, (2011).

On the other hand is the requirement of empirical science to take into account a broad range of data (or highly specialised data), along with the generalisation of this data into hypotheses, its formation of theories and the application of these to wide-scale social and environmental challenges. Gelya

Frank (2022) argues that by focusing on subjectively derived (i.e. phenomenological) descriptions of occupation, occupational science has failed to live up to its empirical mandate. It has also failed to live up to its mandate to address significant social issues. According to Frank, occupational science's "revolution" has stalled, and is badly in need of reconstruction.

The present article is situated within the theoretical parameters that Frank outlines, where she states

> *Regrettably... it is not possible to work out here all the implications for a science of occupation, except to express my optimism that we can do a much better job of understanding, teaching, and using what pragmatism, critical theory, constructivist/narrative/interpretative approaches, and post-positivism have to offer the discipline and society.* (Frank, 2022, Footnote 36, p. 18)

This article takes the theoretical parameters Frank proposes to broadly outline the disciplinary parameters of occupational science. Pragmatism in occupational science is exemplified in transactional perspectives on occupation (Cutchin, 2004; Dickie, Cutchin & Humphry, 2006; Cutchin, Dickie & Humphry, 2006); Cutchin & Dickie, 2013). Critical theory is directed towards emancipation (Kinsella, in Whiteford & Hocking, 2012) and includes decolonial 'consciousness' of Western colonialism in terms of power, hegemonic knowledge, exploitation and violence (Arendt, 1958; Ramugondo, 2015). The grouping of '*constructivist/narrative/interpretative approaches'* suggests an amalgamation of constructivism and phenomenology (for an example, see Cutchin, Dickie & Humphry, 2006). Post-positivism is exemplified by Karl Popper who stressed falsifiability in evaluating theories, a concept that was formative leading towards the Kuhnian notion of 'paradigms' as the normalisation of scientific research (Kinsella, 2012).

Against this backdrop of perspectives, our proposed focus on phenomenological and empirical approaches may seem like an oversimplification. Our argument is the reverse. Combining the foregoing plethora of approaches into a "holistic" grab-bag of methodologies for occupational science both oversimplifies and obscures some underlying conflicts at the level, or 'layer', of discourse and worldviews. (For an analysis involving 'layers' of theories and methods, see Inayatullah, 2002; 2004). Rather, we situate the methodologies in the list Frank (2022) has supplied in the overlap between phenomenological and empirical perspectives. Our concern is to address the aporias that arise in this overlap. As stated at the beginning, this article is a preliminary investigation.

II

On the meaning of what occupational scientists do

Occupational science is peculiarly a science that focuses on *what humans do* (Yerxa, 1990). Most typically, over the past 30 or so years, this science has had a focus on individuals, particularly in relation to their health and well-being (Wilcock, 1999). The particular question we pursue here relates to what occupational scientists understand *themselves* as doing.

Its founding members, who were mainly occupational therapists (Yerxa, 1990), were indirectly influenced by the North American naturalistic philosopher John Dewey, interpreted through the writings of psychologists and educators who championed Dewey's philosophy (Cutchin, 2004). Dewey's influence has drawn some occupational scientists in the direction of a Deweyan version of holism, which has to do with understanding occupation as being about transactions between humans and their environment (Cutchin & Dickie, 2013). Dewey's term, to which occupational scientists have appealed, is *organism-in-the-environment-as-a-whole*. This broad focus shifts the scope of inquiry away from an exclusive focus on what *individuals* do (Dickie, Cutchin, & Humphry, 2006). It also challenges the commonplace assumption that occupation is what individuals do for *work*, or - in its extension in occupational therapy - for *self-care and leisure.*

Frank (2022) makes it clear that occupation is not a mere synonym for activity, and that the holistic vision contained in occupational therapy also provides an alternative paradigm to the reductionism inherent in biomedicine. This is a clear epistemological influence coming from naturalistic philosophy in the Deweyan progressivist-pragmatist tradition. Frank writes,

> *Deep in its philosophical DNA, biomedicine carries a Cartesian dualism of mind and matter. This is fine for biomedicine's treatment of the body for recovery from disease, injury, and dysfunction. But occupational therapy's central concerns are with experience and agency. This philosophy of practice orients clinicians toward helping patients to achieve greater health, function, and life satisfaction through mindful doing. It is the source of values that occupational therapists express about their practice, such as: 'We work with people, not on them,' and 'The patient is the expert.'*
>
> *This specialized way of thinking about occupation is captured in the profession's language about the 'mind-body relationship,' 'mindbody holism,' and 'meaningful, purposeful activity.'*

doi.org/10.32388/9SU3TN.2

> *But this nuanced and unique concept is always at risk (of) being reduced and conflated with the objectification of activity.* (Frank, p. 6)

A similar shift towards holism has occurred with occupational scientists who have been influenced by the continental tradition of philosophy, including phenomenology, hermeneutics, and critical theory (Reed, Hocking & Smythe, 2010; Hocking, in Whiteford & Hocking, 2012; Reed & Hocking, in Cutchin & Dickie, 2013)). In those traditions, the focus is on phenomenological and ontological implications, although there are clearly empirical and epistemological implications as well (Kinsella, in Whiteford & Hocking, 2012). A turn towards the ontological is clearly demonstrated in Wilcock's (2007) definition of occupation as a synthesis of doing, being, becoming, and belonging (to which we will turn shortly).

Yet, there are clearly problems of a philosophical kind that have yet to be brought to a suitable resolution. Perhaps the problem is contained in the very notion of holism. The meaning of the word is notoriously vague, leading to multiple conflicting interpretations. For example, there are a number of conflicting interpretations in terms of what occupational science is trying to achieve in pursuit of its holistic vision. Accounts vary between: achieving health and well-being (Wilcock, 1999); social justice for an ever-widening range of oppressed people (Hocking, 2017); and even, 'a great community' (Aldrich, 2018).

One of the problems with achieving any sort of holistic vision comes from the persistence of subjectivism, or of maintaining an entirely subjective standpoint. Articles published in the *Journal of Occupational Science* are typically standpoint articles, assuming the authors' standpoint as given. This accords with the notion that occupation is *'a person's personally constructed, one-time experience within a unique context'* (Pierce, 2001) which appears as the fundamental assumption in subjectively oriented standpoint theories. Typically, a standpoint in occupational science is the writer's own geographically, historically, and culturally situated bias. The issue of standpoint bias has received some critical attention.

One leading occupational scientist, Clare Hocking, has noted that *'current understandings of human occupation (are) based on uni-dimensional representations'*, stating that '*such non-critical acceptance of a homogenized science of occupation is problematic'.* She cites (and goes on to describe) *'a number of biases brought about by historical circumstances - the relatively small number of occupational scientists, who are, on the whole, female, middle class, located in Western academic contexts and with a background in occupational therapy practice'.* Hocking goes on to state, *'For this reason it is timely that occupation is investigated from multiple ontological standpoints including, for example, as gendered, socio-cultural and*

socio-economic constructions.' (Hocking, chapter 5, in Whiteford & Hocking, 2012, p. 55. Italics added.) In this article, we interpret Hocking's call for 'multiple ontological standpoints' not only as an expression of a desire for ontological pluralism in occupational science but also for a *critique* of standpoints, for example, as gendered, socio-cultural, and socio-economic constructions.

What Hocking appears to be calling for, or offering, is a *constructivist* critique, based on the assertion that *doing* occupational science, to date (in 2012), amounts to little more than the formation of social constructions that only serve a limited range of human interests. (See also chapter 6 by Kinsella, in Whiteford & Hocking, 2012.) What Hocking's book chapter raises is the notion that there is a ''looking glass'' perspective that enables occupational scientists to see themselves as others see them. The claim is that the author herself provides this perspective, stating, *'In this chapter, I critically reflect on what occupational scientists and therapists see reflected back to them when they read and refer to published occupational science research.'* (Hocking, pp. 54, 55). What Hocking wants occupational scientists to consider are the limitations and distortions of their forms of knowledge production by taking on board the critique that occupational science typically embodies gender bias (pp. 55 - 57), the presumption of individualism (pp. 58 - 59) and a middle-class worldview (pp. 59 - 61). The chapter then presents proposals for a way forward (pp. 61 - 63). We shall not go into those proposals here.

What then is the standpoint of critique to which Hocking appeals? That standpoint was not made explicit in the book chapter referred to above. There is a standpoint, however, that appears in much (or even all) of Hocking's writing in connection with the writings of Ann Wilcock (to which we will come, later). In brief, what Hocking calls for, and understands as the aim of occupational science is 'to build knowledge of *humans as occupational beings'* (Hocking 2020, italics added.) From a naturalistic philosophical perspective, it seems reasonable to conclude that the phrase 'humans as occupational beings' is the standpoint of critique adopted in Hocking's book chapter as well.

To summarise Hockings's (2012) argument into one short paragraph, it seems that the standpoint of critique comes through having read and reflected on the knowledge produced in occupational science, from which it is plain to see (in the looking glass) that this knowledge only represents a limited number of perspectives. These perspectives are also distorting insofar as they mistakenly presuppose such a limited range of perspectives could capture all the possible reality of humans *as occupational beings.*

How best to characterise this standpoint of critique? The standpoint is one that opposes a form of subjectivism wherein the subject supposes her own perspective is adequate to understand the world.

The looking-glass metaphor suggests that if all one can see reflected back are one's own subjective biases, then one has not adopted a standpoint that is appropriate for the doing of occupational science.

But what actually does this standpoint represent? We suggest that it does not simply represent ontological pluralism. It does represent that; however, it is with an accompanying critical edge directed towards one's own subjectivity. Much more needs to be written on this topic, and exploring that would be a diversion from the main aim of this article. In brief: one does not want to eliminate one's own subjectivity entirely (that would be self-defeating); one wants to find oneself in a *complementary* relationship with others. The concept of complementarity, suggested from the writings of Niels Bohr (Pais, 1991), placed in connection with occupational science, is a topic that deserves consideration in its own right, a task that we shall defer to articles to follow.

Interpreting the various meanings of occupation

We interpret the various meanings of occupation as falling into two main categories: empirical and phenomenological. The empirical meanings are simpler to understand. What could be simpler than defining occupation as, *what people do*? The phenomenological meanings introduce ontological complexities that reintroduce older, darker meanings that date back to ancient times. We propose that occupational science must hold to both sets of meanings - empirical and phenomenological - but a careful distinction between them needs to be maintained. Furthermore, whilst scientists have some degree of freedom to introduce new meanings for old terms, there are some basic terms relating to existence that science plays around with "at its own peril", as will be explained below. Terms such as being, becoming and belonging (Wilcock, 2007) form the basis for ontological descriptions of the world. By placing such terms into the framework of occupational science, there is a risk that such terms are impoverished or marred by negative connotations of some meanings of occupation. In what follows we draw attention, in particular, to the phrases 'the coloniality of being' and 'the coloniality of occupation'.

Empirically based meanings of occupation

What is it that occupational scientists want to know, empirically? Let us start with the definition of occupation as all the things that people do (Wilcock, 2007). A selective survey of the literature spanning three decades shows it is not what people do *per se* that is the issue. One primary concern has been what is the relationship between what people do, and health. This comes to the fore in the work

of Ann Wilcock (1999; 2007). Wilcock and one of her most prominent colleagues, Clare Hocking, (Wilcock & Hocking, 2015) worked together (before Wilcock's death) on the Occupational Perspective of Health (OPH). Hocking (2020), following Wilcock's similar (1999) claim, has defined the goal of occupational science as 'to build knowledge of humans as occupational beings'. This broadly empirical focus is much wider than that of health. The occupational science literature also indicates an interest in the relationship between occupation and what people find subjectively meaningful. Another particular interest is between occupation and justice, and in the building - to use a phrase borrowed from John Dewey - of 'a great community' (Aldrich, 2018).

Phenomenologically based meanings of occupation

There is an obvious entanglement between the concepts of occupation and age-old concerns that philosophers have had concerning the nature of being, and with concerns about ethics and justice, as they manifest themselves phenomenologically. The problem is that the various definitions of occupation on offer in empiricist versions of occupational science bear no obvious resemblance to the origins of 'occupation' and its cognates as they arose in the natural languages (such as Latin and Sanskrit) of ancient people. But then some would say: *So what? Latin is a dead language. Language has evolved; the meanings of words have changed. People need education to keep up with science.*

Let us take the educational route, first phenomenologically, into ancient language and then, into some of the empirical ways that occupational science has proposed to deal with challenges people face in the modern world. From an interpretive perspective, we need both. Both phenomenologically and empirically speaking, our most basic understandings of the world are being formed in the natural language we inhabit from the moment we learn to speak about what we experience. (This is not to argue that phenomenology and empiricism are the same.)

The Latin origin of 'occupation' comes from the verbs *occupātiō* and *occupāre*: to seize, take possession, fill up a space or position. This word is associated with power as domination. The Greek and Latin roots of the words 'domination', 'dominion', and 'domain' come from the word *domos* meaning 'house' (in Sanskrit: *damah*). (Harper, n.d.) The Greek origin of the word 'household' is *oikos*: from which is derived the word 'economy'. A household (in its widest economic sense of the word) is any space taken into possession (occupation), for the sake of exercising dominion over a domain of property, people and activities (occupations). This group of words, in their original meaning, is a colonialist way of defining where, or to whom, people and their activities *belong.* The ontological

question is whether or not occupational scientists belong, in their basic occupational science orientation, to the coloniality of occupation and, in their basic world orientation, to the coloniality of being.

The colonialities of occupation and being

Hannah Arendt's (1958) analysis of the ancient colonial empires of Athens and Rome provides important insights into the coloniality of occupation, demonstrating its basic tripartite structure and its inherent violence.

In ancient Greek colonial society, the basic requirements of meeting the needs of the human organism for its own life and for procreation were largely hidden within the privacy of a household. The head of a household was unquestioningly assumed as male. The basic requirement of meeting the basic needs of society (the built environment) was placed in the hands of artisans and craftsmen (again typically male). Both of these functions could be performed either by slaves or skilled paid workers. This basic class structure (despite various changes to female participation in formerly male-dominated social roles) has survived to the present time in politically dominant nations around the world, where coloniality is clearly on display.

Arendt discloses the underlying source of human motivation that drives this entire colonial apparatus. The following sentence summarises the core ingredient, where she states, 'the mastering of necessities in the household was the condition for freedom of the polis.' (Arendt, 1958, pp. 30,31). In Arendt's own estimation, political freedom is still a quality most highly to be desired and cherished, along with equality; a value she assumes is shared by her reading audience. The phrase 'mastering necessity' signifies the most basic condition for *public* equality between those who have achieved mastery over their households *privately* i.e. behind closed doors, under conditions of strict inequality. Colonial society is a society of masters ruling over those deemed incapable of ruling themselves. This status of master does not require extraordinary physical or intellectual prowess. It can just as readily be achieved *via* inherited wealth and status.

Colonial society is underpinned by violence. Arendt's analysis is worth noting in this regard.

> *What all Greek philosophers, no matter how opposed to polis life, took for granted is that freedom is exclusively located in the political realm, that necessity is primarily a prepolitical phenomenon, characteristic of the private household organization, and that force and violence are justified in this sphere because they are the only means of mastering necessity - for*

> *instance by ruling over slaves - and to become free. Because all human beings are subject to necessity, they are entitled to violence towards others; violence is the prepolitical act of liberating oneself from the necessity of life for the freedom of world. This freedom is the essential condition of what the Greeks called felicity, eudaimonia, which was an objective status depending first on wealth and health.* (Arendt, p. 31)

From Arendt's analysis, we can understand how colonial class structure, and hence colonial power, can be gained and reproduced intergenerationally over the course of history, by adhering to a simple tripartite structure of occupations based on the divisions between labour, work, and action. Wherever colonial expansion occurred, occupations were organised and distributed according to experiences of necessity (fulfilled by labour, often enforced), conceptions of utility and the need for a built environment (fulfilled by work, not always well paid) and desires for freedom (fulfilled by action, but occasioning the servitude of others).

Taken together the colonial world encompasses all the spheres of biological, social, and political life, albeit controlled and maintained through violence. It is clear that since occupation encompasses all these spheres, we would expect that a task for occupational science is to address the colonialities of occupation and being.

Critiques of the colonialities of occupation and being in occupational science

John Locke, a naturalistic philosopher whom Wilcock (2007) admired and quotes, is an example of a would-be scientist (he was a self-styled physician) operating from within a colonial mindset - particularly given his theory of the relationship between property ownership resulting from mixing one's labour with 'natural' materials (Locke, 1980). Locke was a prominent figure in the 17th-century English colony of Carolina in North America.

There are a growing number of decolonial writers who engage, critically, in occupation research into occupations as marked by *the coloniality of being*. (See Maldonado-Torres, 2007, for an account of the development of the concept, one that includes colonialities of power and knowledge.) Some are explicitly concerned with issues facing Indigenous people who have undergone colonisation by European nations e.g. Ramugondo, (2015; 2018); Huff et.al., (2022); Levesque et.al., (2022). Others treat colonialism more broadly, extending the concept into disability studies.

In the Foreword for a book entitled *Occupying Disability: Critical Approaches to Community, Justice, and Decolonizing Disability* (Block et.al., 2016) Gelya Frank addresses the 'discomfort zone' in bringing

forward the notion of 'decolonising disability'. She asks: 'Why would anyone choose to go there?'

> *The answer has to do with the idea of* ***occupation****. To be colonized is to have control taken away, to have the cultural and material foundations of our homeland* ***seized by an occupying power****. But the politics of liberation - with pain and joy - encourages us to do what is necessary so that we ourselves and everyone else can meet our human potential for individual growth and social participation.* ***We insist on occupying the places where we belong.*** (Frank, in Block et.al., 2016, p.*v*, emphases in bold capture the original emphasis in italics)

These critiques, which we cannot examine in detail here, are vital in the ongoing need for conceptually clarifying (interpreting) the *doing* of occupational science. They place contemporary forms of doing into a historically produced, colonial context, that survives, albeit in transmuted ways, into the present. In the next section (II) we examine the legacy of Ann Wilcock, from the perspective of whether her work survives the decolonial (and other) critiques.

III

Interpreting the legacy of Wilcock

What makes Wilcock so crucial as a theorist in the development of naturalistic philosophy in occupational science is her interpretation of occupation as a 'synthesis' of doing, being, becoming and belonging. This ontologically inscribed definition of occupation amounts to a conceptual innovation in occupational science. We ask: is it one that could place her theory within the scope of a critique concerning the coloniality of occupation? Given her unqualified endorsement of the colonialist philosopher, John Locke, Wilcock exposed her writings to the possibility of a decolonial critique. We argue that what potentially enables Wilcock's theory to survive this critique is the emphasis she placed on the word 'natural'.

Wilcock's overall theory involves two claims about the naturalness of occupation. The first is contained in an article published in the *Australian Occupational Therapy Journal* (1999), where Wilcock stated that 'occupation is the *natural* biological mechanism for health' (p. 2, italics added). The second claim, in the *Journal of Occupational Science,* is that '*natural* health and occupation *may be* one and the same.' (Wilcock 2007, p. 4, italics added). Wilcock is aware that her theory about occupation and health involves some culture-specific assumptions about the meaning of occupation.

First, she recognises that *'it could not be assumed that humans have always engaged in wide-ranging occupation'* and that her theory, *'is refutable because different cultures do not share the concept of occupation as all the things that people do.'* It is clear that Wilcock recognises that occupation is a culture-specific concept. This occurs where she states (referring to the concept of occupation), *'In some cultures, it is unnecessary as ways of life simply reflect the need to engage in natural forms of survival, health and well-being.'* (all quotes in this paragraph from p. 4)

However, Wilcock does not engage with the specific colonial culture in which the original meaning of occupation arose, most specifically in her home country, Australia. She treats occupation on a par with natural forms of survival, health and well-being.

Wilcock (2007) states,

> *Such evidence, set within generally accepted scientific theories of the evolution of the universe and the species that inhabit it, provides me with absolute assurance that, as a result of their biological evolution and enculturation, people are occupational beings. That is, the need to engage in occupation forms an integral part of innate biological systems aimed at survival and health, that the varying potential of individuals for different occupations is a result of their genetically inherited capacities, and that the expression and execution of occupation is learned and modified by the ecosystem and socio-cultural environments in which they live. (p. 4)*

She wrote in the same article

> *all the things that people do can be recognised as part of the human condition and relate to health or illness of a physical, mental, spiritual and social kind. This gave me a deep appreciation, unrecognised at the time, that '**natural**' health and occupation may be one and the same.* (Wilcock, 2007, p. 4, boldface added for emphasis).

Wilcock's 2007 article shows that her interest in occupation was based on evidence from evolutionary biology, archaeology, and anthropology. Her claim about natural health was based on research into hunter-gatherers that indicates they were relatively free of diseases that have become commonplace under modern conditions. The term 'natural health' provides an important qualification. At the same time, it may raise the bar too high for her model to work in many less-than-natural modern settings.

This brings us to the part of Wilcock's model that focuses exclusively on the implications of doing, being, becoming and belonging for survival and health. She puts the model into a formula. Wilcock

writes, *'...my theory about the health relatedness of the occupational nature and needs of people is remarkably simple. It is that doing, being, becoming and belonging are essential to survival and health. Or d+3b=sh.'* (Wilcock, 2007, p. 5)

(One criticism: If this formula is supposed to be algebra, it makes no mathematical sense. It fails because a correct translation of her words to algebra would be d + b' + b" + b''' = s+h. But as we shall explain, it isn't simply additive on either side of the equation and too much is lost in this artifice.)

Phenomenological and ontological aspects of Wilcock's OPH

In the shift from 'natural' considerations to modern settings, Wilcock also (tacitly) shifts her definitions of occupation from 'all the things that people do' to the far more complex definition of occupation as the synthesis of doing, being, becoming and belonging. This brings us to the core problem concerning phenomenological and ontological uses of the term 'being' in her theory.

If occupational science is the building of knowledge of humans as occupational *beings*, and if occupation is defined as doing, *being*, becoming and belonging, some account needs to be given of the two uses of 'being'. Let us see how two uses of 'being' enable Wilcock to almost *imperceptibly shift between two versions of occupation*.

In the phrase 'people as occupational beings', 'occupation' is conceptually indistinct from 'being'. Occupation is simply, 'what people do' (i.e. what comes naturally to them as beings). Occupation provides a naturalistic epistemological perspective; one that Wilcock herself held and one that she arrived at through a process of conceptual and empirical research. This epistemological perspective emerges in the evolutionary form of human beings' 'natural' ways of doing things that have led to their survival and health. Hence Wilcock's naturalistic epistemological perspective of occupation takes its conceptual precedents from evolutionary theory, which conceptually precedes any modern ontological notion of 'being' such as 'Dasein' and 'being-in-the-world' (Heidegger, 1962). It is only with the addition of the Heideggerian concept of being, (which is mentioned by Wilcock but not examined by her in any detail), involving consciousness of self and of its position in the world, is there any possibility for 'occupation' to emerge as *mindful doing.* (Author note: We are not aware of Wilcock's having used the phrase 'mindful doing', but it is implicit in her account.)

This brings us to the following tentative interpretation of Wilcock's alternative *ontological* (re) definition of occupation. Here we make some preliminary (and by no means comprehensive) moves in bringing Wilcock into a conversation with Heidegger and Arendt.

Wilcock's 2007 occupational perspective of health (OPH) places doing, being, becoming and belonging into the phenomenological sphere of specifically modern modes of engagement that characterise being-in-the-world (now well into the 21st century). 'Being' (in Wilcock's formulation) has been drawn into the modern phenomenological sphere of the occupational perspective, because of the modern human being's need for survival and health under drastically changed circumstances compared to mythical times to which romantic naturalism (even when based on evolutionary theory) invariably alludes. These modern circumstances include two devastating World Wars, the Holocaust, the "Cold" war, the ushering in of the atomic age, space travel, all preceded by an unprecedented proliferation of technology, including the mass industrialisation of work and automation of daily routines. 'Natural' (in Wilcock's sense of that word[1]) and modern ways of doing and being have, to a significant degree, become alienated. There is a romantic nostalgia for what has been lost pervading much of Wilcock's work. What may once have been considered 'natural' and has survived into the modern world, is now present in a vastly altered form, because modernity has had such a massively transformative impact on the ways in which (most) humans live.

What Wilcock was attempting to communicate had already been written by Arendt (1958) in far greater detail, starting from her basic premise of world-alienation, tracing its origins back to ancient European civilisation, primarily in Greece and Rome, through to modern times. For those phenomenologically minded occupational scientists who take a Heideggerian perspective, this alienation may be one way to account for why, for 'Dasein', its *being is an issue for it.* In Heidegger's *Being and Time* (1962/1927), there is an uneasy tension between being and time; there is also a deep tension in the notion of 'being-with' others. Arendt herself traced this tension back to antisemitism (Arendt, 2007) and the origins of totalitarianism in Europe (Arendt, 1973), culminating in her book *Eichmann in Jerusalem* which she subtitled, *A report on the banality of evil* (Arendt, 1963).

In Wilcock's (2007) expanded definition of occupation, 'becoming' introduces a temporal dimension to the occupational perspective; 'belonging' adds a social or contextual dimension. Time and sociality are and have been subject to changes under conditions of modernity (such as hyper-rapid social change) that may overwhelm 'being'. In such circumstances, people tend to ask anxiously: *what shall we do?* The emphasis (or overriding existential concern) shifts from a concern with being (Heidegger) towards a concern with doing (Wilcock). 'Doing' is placed in the driver's seat, not mindlessly, but as Frank (2022) explains, as a 'mind-body holism'. One may see an affinity between Wilcock (2007) and Arendt (1958) in this regard. Arguably, Arendt's (1958) book *The Human Condition* was a response to

Heidegger. Her response to Heidegger's overarching concern with being and time was: *to think what we are doing* (p. 5).

What conclusion can we draw from such considerations? The encompassing of being, becoming and belonging into a phenomenological and ontological formulation appears to privilege 'doing' (by placing it first in the "equation"). Furthermore, the introduction of terms such as being, becoming and belonging, indicates that the occupational perspective that offers a pathway to survival and health, *as an alternative to modern medicine*, may readily be compromised. Changing circumstances may alter the moods, the types of occasions or circumstances that are needed for the entwining of subjectivities and socialities that constitute social and political life. This is not only because these changes change the possibilities for doing, but also because they *directly* change possibilities for survival and health (for example when someone is too overwhelmed by stress to do what is needed to survive or remain healthy). There is clearly a complex (rather than simply additive) interaction going on between what the terms signify in Wilcock's model.

For Deweyans, this is best understood as a transaction. A transactional approach has yet to be explicitly applied in detail in relation to Wilcock's model as far as we are aware, despite attempts to specify procedures for the 'synthesis' of doing being, becoming and belonging (Hitch et.al. 2014). The OPH model seems most appealing to those who are prepared to make a shift from the 'modern' (especially medicalised) human condition towards some more 'natural' human condition. The question of how this is possible in modern cities remains one of the key questions for occupational scientists to investigate. The extremely tricky part is in the elucidation of the term 'natural' used by Wilcock. We know that it is possible to proceed in some cases without a precise definition, for example when the word "gene" was first introduced, it was not precisely defined, but it *was* known that the gene was some kind of entity that controlled heritable characteristics. By contrast, what behaviours and conditions are circumscribed by "natural" and what are excluded remains unclear, at best. This conceptual part of the current investigation requires additional research. What we have begun to describe in the foregoing is an issue that highlights the need for an *ongoing* naturalistic philosophical interpretation and analysis of occupational science.

Empirical aspects of Wilcock's OPH

Next, we turn to the *empirical* aspects of Wilcock's OPH. Wilcock invites occupational scientists to find evidence for and against her claim that doing, being, becoming and belonging are essential to survival

and health. In her 1999 article for occupational therapists, she wrote 'We should be true to our beliefs, *be prepared to test them,* expand them and to articulate a distinctive view of any issue or situation' (p. 6, italics added).

Other researchers taking her formulation as a purely empirical theory, applicable without qualification in modern settings, has been a disaster for Wilcock's reputation. Especially since around 2013, there has been a growing number of articles providing evidence that engagement in occupation, whilst meeting criteria of meaningfulness, is contrary to participants' survival and health. A recent article in the *Journal of Occupational Science* from December 2022, by Gätz, van Nes and Maersk is entitled, '*Forbidden fruit: An exploration of meaning construction of tobacco smoking of people living with Chronic Obstructive Pulmonary Disease (COPD).*' Their conclusion exemplifies perfectly the kind of approach:

> *The aim of this study was to explore the experience of meaning construction regarding the occupation of tobacco smoking for people living with COPD. The findings support the ideas of the concept of the dark side of occupation, in so far as occupations do not need to be health-promoting, productive, or purposeful to be meaningful to the individual. Meaning is shaped by subjective perceptions of well-being, enjoyment, restoration, and reward, as well as social context. As this research tentatively shows, occupations can hold positive, negative, or ambivalent meanings on individual and societal levels and vary even within a single person. Occupation can, therefore, not be discussed in the simplistic dichotomy of healthy or unhealthy, good or bad. It is the individual, situated in context, who attributes meaning to occupation, and ultimately, to Melanie, Margaret, Anne, and Thomas at least, smoking remains a valuable and meaningful occupation in their everyday lives.* (Gätz et.al. 2022, p. 12)

This pattern of empirical investigation is based on finding an example of occupational engagement that provides evidence to the contrary of Wilcock's main claim that engagement in occupation leads to survival and health. This has been labelled 'the dark side' of occupation, originally suggested by Twinley (2013) as a concept for consideration. It is aimed at upholding an alternative model that occupation is simply about doing what is subjectively meaningful (for however long what is subjectively meaningful lasts). This interpretive trend has led to a steep rise in subjectivism underpinning many occupational science articles.

However, what 'the dark side' critique misses in Wilcock's formulation of doing, being, becoming and belonging is the positioning of the ontological terms within the concept of occupation itself. These terms themselves incorporate the subjectivities of individual human beings, their socialities of belonging, and their attitudes towards qualities of becoming in living and dying (their being-towards-death, to put it into Heideggerian terms). Such considerations have a bearing on the question of which (or whose) knowledge counts and for what end. It is not as simple a research situation as that of enacting a post-positivist methodology.

Conclusion

The argument we have presented here is not either of the sorts of arguments that would seek to damage Wilcock's model or choose to ignore it. We think that Wilcock's brilliance was undoubtedly in creating a quite possibly unstable or shifting (this can also be read: labile, flexible, receptive, or adaptive) "synthesis"[2] of occupation as 'what people do' with the three ontological elements of being, becoming and belonging.

The subsequent empirical research, which seems to be about the undoing of that model, has aimed at the presentation of occupation as an equation with survival and health. On the other hand, some subjectivist research into occupation as doing whatever is subjectively meaningful could be aimed at simply ignoring or bypassing Wilcock.

However, Wilcock's model, if properly understood, avoids this kind of critique. Hers is not a deterministic model. If people choose to define occupation as whatever is subjectively meaningful, and so undermine their prospects for survival and health, this is not the definition that Wilcock has provided. Wilcock's model remains naturalistic. One way to interpret the model is that if people can find ways, in their doing, being, becoming and belonging, to return to naturalistic occupations, then their prospects for survival and health are improved to the extent that is possible for them. The theme of a return to a naturalistic form of life, even under modern conditions, pervades Wilcock's work. The occupational perspective of health is not the same as that provided by modern medicine. In the OPH, occupation means healthy living. Occupation and health are co-defining. In Wilcock's understanding, some modern activities termed "occupations" are a misuse of the word. The empirical testing of Wilcock's theory does not in any way damage her claim that 'natural' health and occupation *may be* one and the same. There is considerable empirical evidence from sports science and other occupation-

focused sciences to support it. Not that we assert that Wilcock is a final authority on all things occupational.

Our proposal is that occupation can be understood from a variety of perspectives, one of which is survival and health. Another is the criterion of meaningfulness. Another is from the coloniality of being. There is no necessary or inevitable damage to Wilcock's conceptual synthesis of occupation as doing, being, becoming and belonging, if occupations that meet the criterion of meaningfulness do not lead to survival and health under modern conditions. Her conceptual synthesis opens occupation to a critique from the perspective of the coloniality of being, but in essence, Wilcock's theory is naturalistic, not colonialist. Much more research needs to be done, from a decolonial perspective, in relation to any aspects of the coloniality of being that may or may not be present in Wilcock's model.

We suggest that rather than regarding the foregoing perspectives as rivals, it would be better to find out ways in which one perspective complements another, as situationally indicated. This would fulfil Hocking's (2012) call for multiple ontological standpoints. For example, a response (albeit a provocative one) to Gätz et.al (2022) could be that smoking (in the complex bio-psycho-social situation they describe) *complements* the focus on the recovery of (full) health that clinicians are apt to bring to bear. On this account, health itself could be (re) defined as optimal, relative to the individual's time of life, and their self-perceived needs and preferences. It is arguable that clinicians (especially those in geriatric care, or those concerned with the management of terminal illness) do make this shift in their approach, depending on the situation that is presented to them, but in day-to-day medical practice, this shift can be problematic for both the clinician and the individual, particularly when the individual's preferences cannot be ascertained, as in the cases of severe mental illness (psychosis or dementia, for example) or unconsciousness. In emergency medicine, there is little space for accommodating subjectivity. The assumption that individuals *always* know or are capable of knowing what is in their own best interests is false, so, a hard and fast rule about autonomy and individual perceptions in relation to health cannot be applied.

In this article we have made some suggestions concerning the ongoing philosophical inquiry, particularly dealing with the colonialities of occupation and being, and for bringing Wilcock's scholarship into a conversation with others. We have indicated the possibility of opening up a distinctive ontologically pluralistic approach, one that can be provisionally named *a complementarity perspective* in occupational science, one that we propose to address in forthcoming articles.

Authors' note

This article is a revision of an article that previously appeared in Qeios. That article was entitled, *On the ongoing need for naturalistic philosophy to interpret what occupational science is doing.* Thanks to the reviewers of that article for their immensely helpful suggestions.

Footnotes

[1] That Wilcock failed to define the word 'natural' for her scientific purposes suggests to us that, apart from its romantic connotations, she implicitly defined the word negatively in comparison to modern conditions

[2] We will examine claims about the "synthesis" of doing, being, becoming and belonging in articles to follow.

References

- Aldrich, Rebecca M. (2018). Strengthening associated living: A Deweyan approach to occupational justice, *Journal of Occupational Science*, 25:3, 337-345, DOI: 10.1080/14427591.2018.1484386
- Arendt, Hannah. (1998/1958). *The Human Condition.* Chicago: University of Chicago Press.
- Arendt, Hannah. (1963). *Eichmann in Jerusalem: A report on the banality of evil.* Viking Press.
- Arendt, Hannah. (1973). *The Origins of Totalitarianism.* (1973 New ed.). New York: Harcourt Brace Jovanovich.
- Arendt, Hannah; Jerome Kohn, Ron H Feldman. (2007). *The Jewish writings.* New York: Schocken Books.
- Barber, Michael D. (2004). Occupational science and phenomenology: Human activity, narrative and ethical responsibility. Journal of *Occupational Science*, 11(3), 105114.
- Barber, Michael D. (2006). Occupational science and
- the first-person perspective. *Journal of Occupational Science*, 13(1), 9496.
- Block, Pamela; Devva Kasnitz, Akemi Nishida, Nick Pollard. (Eds.) (2016). *Occupying Disability: Critical Approaches to Community, Justice, and Decolonizing Disability.* Dordrecht, Heidelberg, New York, London: Springer.
- Cutchin, Malcolm P. (2004). Using Deweyan philosophy to rename and reframe adaptation-to-environment. A*merican Journal of Occupational Therapy, 58*, 303-312

- Cutchin, Malcolm P., Dickie, Virginia A. & Humphry, Ruth. (2006). Transaction versus interpretation, or transaction and interpretation? A response to Michael Barber. *Journal of Occupational Science*, 13, 97-99.
- Cutchin, Malcolm P., & Dickie, Virginia A., (2012). Transactionalism: Occupational science and the pragmatic attitude. In G. Whiteford & C. Hocking (Eds). *Occupational science; Society, inclusion, participation* (pp. 23-37). London: Wiley.
- Cutchin, Malcom P. and Dickie, Virginia, A. (Eds.) 2013. *Transactional Perspectives on Occupation.* Dordrecht, Heidelberg, New York, London: Springer.
- Dickie, Virginia; Cutchin, Malcolm P. & Humphry, Ruth. (2006). Occupation as Transactional Experience: A Critique of Individualism in Occupational Science, *Journal of Occupational Science*, 13:1, 83-93, DOI:10.1080/14427591.2006.9686573
- Frank, Gelya. (2016). Foreword, in Block, Pamela; Devva Kasnitz, Akemi Nishida, Nick Pollard. (Eds.) 2016. *Occupying Disability: Critical Approaches to Community, Justice, and Decolonizing Disability.* Dordrecht, Heidelberg, New York, London: Springer.
- Frank, Gelya. (2022). Occupational science's stalled revolution and a manifesto for reconstruction, *Journal of Occupational Science*, DOI: 10.1080/14427591.2022.2110658
- Gätz, Natalie; Fenna van Nes & Jesper Larsen Maersk. (2022). Forbidden fruit: An exploration of meaning construction of tobacco smoking of people living with Chronic Obstructive Pulmonary Disease (COPD). *Journal of Occupational Science.* DOI: 10.1080/14427591.2022.2148722
- Harper, D. (n.d.). Etymology of dominion. Online Etymology Dictionary. Retrieved January 13, 2023, from https://www.etymonline.com/word/dominion
- Heidegger, Martin (1962). *Being and Time.* Trans. John Macquarrie and Edward Robinson. San Francisco: Harper Collins.
- Hitch, Danielle; Geneviève Pépin & Karen Stagnitti. (2014). In the Footsteps of Wilcock, Part Two: The Interdependent Nature of Doing, Being, Becoming, and Belonging, *Occupational Therapy In Health Care*, 28:3, 247-263, DOI: 10.3109/07380577.2014.898115
- Husserl, Edmund. (1931). *Ideas: general introduction to pure phenomenology.* [Trans. by W. R. B. Gibson]. Macmillan.
- Hocking, Clare. (2012). Occupations through the looking glass: Reflections on occupational scientists' ontological assumptions. Chapter 5, in Whiteford, Gail E. and Clare Hocking, (Eds.) 2012. *Occupational Science: Society, Inclusion, Participation.* Blackwell Publishing.

- Hocking, Clare. (2017). Occupational justice as social justice: The moral claim for inclusion, *Journal of Occupational Science*, 24:1, 29-42, DOI: 10.1080/14427591.2017.1294016
- Hocking, Clare, (2020). Editorial, *Journal of Occupational Science*, 27:2,
- 155-157, DOI: 10.1080/14427591.2020.1757396
- Huff, Stephanie; Debbie Laliberte Rudman, Lilian Magalhães, Erica
- Lawson & Maimuna Kanyamala. (2022). Enacting a critical decolonizing ethnographic approach in occupation-based research, *Journal of Occupational Science*, 29:1, 115-129, DOI:10.1080/14427591.2020.1824803
- Inayatullah, Sohail. (2002). *Questioning the future.* Tamkang University
- Inayatullah, Sohail (Ed). (2004). *The causal layered analysis (CLA) reader.* Tamkang University.
- Kinsella, Elizabeth, A. (2012). Knowledge paradigms in occupational science: Pluralistic perspectives. Chapter 6 in Whiteford, Gail E. and Clare Hocking, (Eds.) 2012. *Occupational Science: Society, Inclusion, Participation.* Blackwell Publishing.
- Locke, John. 1980. *Second treatise of government* (C. B. Macpherson, Ed.). Hackett Publishing.
- Martine C. Lévesque, Alison Kutcher, Laurence Roy, Paul Linton, Lucy Trapper, Jill E. Torrie & Mary Ellen MacDonald (2022): Occupational transaction in support of miyupimaatisiiun (wellness): Eeyou/Eenou community voices, *Journal of Occupational Science,* DOI: 10.1080/14427591.2022.2132999
- Maldonado-Torres, N. (2007). On the coloniality of being. Contributions to the development of a concept. *Cultural Studies* 21, 2-3: 240 - 270 DOI: 10.1080/09502380601162548
- Merriam-Webster. (n.d.). Occupation. In Merriam-Webster.com dictionary. Retrieved January 12, 2023, from https://www.merriam-webster.com/dictionary/occupation
- Pais, Abraham. (1991). *Neils Bohr's Times, in Physics, Philosophy, and Polity.* Oxford: Oxford University Press.
- Pierce, Doris. (2001). Untangling occupation and activity. *The American Journal of Occupational Therapy*, 2001, 55, 2: 138–146
- Ramugondo, Elelwani L. (2015). Occupational Consciousness. *Journal of Occupational Science,* 22(4): 488-501. doi: 10.1080/14427591.2015.
- Ramugondo, E. (2018). Healing work: Intersections for decoloniality [Keynote presentation]. World Federation of Occupational Therapists Congress 2018, Cape Town, South Africa. https://www.wfot.org/resources/wfot-congress-2018-keynote-summary-elelwani-ramugondo

- Reed, Kirk; Clare Hocking, & Liz Smythe. (2010). The interconnected meanings of occupation: The call, being-with, possibilities, *Journal of Occupational Science*, 17:3, 140-149,
- DOI: 10.1080/14427591.2010.9686688
- Reed, Kirk, and Clare Hocking. (2013). Resituating the Meaning of Occupation: A transactional perspective. Chapter 4, in Cutchin, Malcolm P. and Dickie, Virginia, A. (Eds.) 2013. *Transactional Perspectives on Occupation.* Dordrecht, Heidelberg, New York, London: Springer.
- Twinley, Rebecca. (2013). The dark side of occupation: A concept for consideration. Australian Occupational Therapy Journal, 60(4), 301–303. https://doi.org/10.1111/1440-1630.12026
- Whiteford, Gail E. and Clare Hocking, (Eds.) (2012). *Occupational Science: Society, Inclusion, Participation.* Blackwell Publishing.
- Wilcock, Ann A. (1999). Reflections on doing, being, and becoming. *Australian Occupational Therapy Journal.* 46, 1–11
- Wilcock, Ann A. (2007). Occupation and Health: Are They One and the Same? *Journal of Occupational Science*, 14:1, 3-8, DOI: 10.1080/14427591.2007.9686577
- Wilcock, Ann. A. and Clare Hocking. (2015). *An occupational perspective of health* (Third). Slack Incorporated.
- Yerxa, E. J. 1990. An introduction to occupational science, a foundation for occupational therapy in the 21st century. *Occupational therapy in health care*, *6*(4), 1–17. https://doi.org/10.1080/J003v06n04_04

Declarations

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.