Indigenous Knowledge Systems in South Africa and Australia: transforming doctoral education

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Abstract

While there is a great deal of support for the integration of Indigenous Knowledge Systems (IKS) into higher education, there is still a significant amount of work to be done to move beyond tokenism. Intensive dialogue and robust conceptual outlooks are required. In this paper, this international team of South African and Australian scholars engage in a transcultural and transdisciplinary dialogue in order to chart how discourses and debates about IKS are understood in the different historical and cultural contexts of South Africa and Australia. They combine the theoretical approaches of de Sousa Santos (2014; 2018a and b) about epistemic justice with the theories of Odora Hoppers (2021), Visvanathan (2009), and First Nations Australian scholars Williams, Bunda, Claxton, and McKinnon (2018) about an Indigenous knowledges global decolonisation praxis framework. This dialogue is deliberately jarring and polyvocal because of our desire to go beyond tokenism. The South African team have chosen to apply Bacchi's (2009) approach of problem formulation and policy as change proposal to discourses about IKS in South African policy documents. The Australian First Nations team have demonstrated how Aboriginal and Torres Strait Islander knowledge systems work through the power of stories. Purposely adopting a polyvocal, multimodal approach, the Australian section includes ethnographic policy analysis and narratives that illustrate how IKS might operate in higher education.

Keywords Indigenous Knowledge Systems · IKS · South Africa · Australia

Introduction

In this paper, our international team of scholars from South Africa and Australia engage in a transcultural and transdisciplinary dialogue to chart how discourses and debates about IKS are understood in the different historical and cultural contexts. We chose to focus on doctoral education because it is not only the 'highest form of knowledge' in the university, but also because, as we have argued elsewhere (Manathunga et al. 2022), doctoral education can be transformed into a key site for decolonising higher education because it acts as an important location for knowledge production. Doctoral education can also become a major place in the academy for disrupting Whiteness and Eurocentrism because increasing numbers of doctoral candidates are incorporating Indigenous theories and methodologies in their research to challenge the colonial, assimilationist legacy that continues to dominate education at all levels.

The paper purposively adopts a polyvocal, multimodal approach, and the presentation of this paper will sit just slightly outside typical academic protocols. While the South African section of the paper is written in an analytical, academic style, the Australian Indigenous section is a combination of narrative style and ethnographic policy analysis that links key shifts in Australian higher education policy with ethnographic shifts in the higher education experience of one of our Aboriginal authors. This renders our paper rather jarring, with a loud and proud montage of moments, voices, subjectivities and positions aimed at drawing attention to the messiness of working towards sustainable approaches to incorporating IKS into the academy.

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At the beginning of the paper, we present our theoretical approaches. Next, both countries represent themselves discreetly and in the form of their choosing. The South African team apply Bacchi's (2009) approach of problem formulation and policy as change proposal to discourses about IKS in South African policy documents, while the Australian team demonstrate how Aboriginal and Torres Strait Islander knowledge systems work through the power of stories presenting ethnographic policy analysis and narratives linked to doctoral education. Our paper concludes with suggested principles for the sustainable integration of IKS in doctoral education.

Theoretical approaches

Our work is informed by a postcolonial/decolonial theoretical positioning that combines the theories of postcolonial and subaltern scholars (e.g. Chakrabarty, 2007) with decolonial theories developed by First Nations and global South theorists (de Sousa Santos, 2014, 2018b; Williams et al., 2018). These theoretical positionings are based upon the assumption that 'colonialism did not end with the end of historical colonialism based on foreign territorial occupation. Only its form changed' (de Sousa Santos, 2018b, p. 109). For Australia, the issue of Aboriginal and Torres Strait Islander sovereignty continues to be an unresolved issue even though the doctrine of *terra nullius* (unoccupied or uninhabited land), which was the false basis of the British invasion in 1788, was overturned with the Mabo Native Title case. In the South African context, experiences of colonialism were overlaid by the racist and oppressive operations of apartheid that only ended in 1994. A key argument of decolonial scholars is that a final end to colonisation and the achievement of full social justice cannot be achieved until all the world's knowledge systems, including Indigenous knowledges, are genuinely included in knowledge production. De Sousa Santos (2014, p. 42) calls this 'cognitive justice', which involves ensuring that *all* of the worlds knowledge systems, languages and cultural practices are completely valued and acknowledged rather than only Western/Northern science.

The first way of working towards epistemic justice, de Sousa Santos (2014) suggests, is to ensure that African, Southern, transcultural (migrant, refugee and culturally diverse peoples) and IKS are fully valued within the university. This is what he calls the 'epistemologies of the South', which, he indicates, have two central characteristics—the ideas of the ecologies of knowledges and of intercultural translations (de Sousa Santos, 2014). The ecologies of knowledges' theory relocate scientific knowledge within a much broader spectrum or ecology of knowledges (de Sousa Santos, 2014). The idea is that *all* knowledge systems should be granted 'equality of opportunity' to build 'a more just and democratic society as well as one more balanced in its relations with nature' (de Sousa Santos, 2014, p. 190). These knowledge systems, which are all partial and incomplete on their own, would be used in conversation with each other to gain a more holistic approach to knowledge creation. De Sousa Santos (2014) suggests that intercultural translation involves 'developing, whenever appropriate, new hybrid forms of cultural understanding and intercommunication' (p. 212), which will help us achieve real cognitive justice.

The South African team also applies the work of Visvanathan (2009) and Odora Hoppers (2021) on cognitive justice and epistemic disobedience to their analysis. Meanwhile, the Australian team also draws upon the Indigenous knowledge global decolonisation praxis framework developed by Williams and colleagues (2018). This model recommends 'cultural remapping in both an embodied and discursive sense … [which] incorporate[s] being on the land, arts-based approaches and dialogical experiences' (Williams et al*.,* 2018, p. 48). Centring Indigenous leadership, epistemologies, ontologies, and research methods, this framework emphasises the importance of Land or Country as a 'thinking place' (Williams et al*.,* 2018, p. 44) whose timeless wisdom can be accessed (under the appropriate protocols) through 'ceremony performed, Indigenous languages and music, imagery and dialogue' (Williams et al., 2018:46). Secondly, this model foregrounds arts-based approaches, which involve powerful modes of visual, aural and creative storytelling, where knowledge production is iterative, intergenerational, and intercultural. Thirdly, like all Indigenous epistemologies, this framework stresses the importance of dialogic approaches and deep 'relationality, reciprocity and responsibility' between humans and between humans and our more than human kin (Williams et al., 2018, p. 51). These Indigenous philosophies are exemplified in the poetry, narrative and ethnographic policy analysis sections contributed by the Australian First Nations team, while many of these approaches are evident in specific disciplines within the Western canon, research reports and papers and tend to be restricted to a fixed 'Western-scientific discourse, and doctoral pedagogy persists in a template-compliance process.

Discourses and debates about decolonisation and IKS in South Africa

Doctoral education in South Africa has been subject to review in the past few years. There have also been ongoing calls to examine contexts of social justice and transformation imperatives. The observed problematic is that doctoral

education (DE) needs to become more accessible, inclusive and responsive to the needs of a diverse population of students, as well as considering in what ways indigenous knowledge could contribute towards the ideals of social justice and a transformation of doctoral pedagogy. We problematise the role of knowledge systems in doctoral education by analysing IKS policies in South Africa and exploring what is involved in making doctoral education programs more responsive to imperatives of social and cognitive justice. Analyses of education policies indicate limited references to IKS terminology. Despite this, decolonisation debates are all in support of social and cognitive justice in education, and in particular doctoral education.

Doctoral education could contribute to transforming higher education by creating thought leaders, disrupting conventional methodologies, canon, processes, validations, relevance and responsiveness (Fataar, 2018). Supervisors and doctoral candidates, while working within a particular knowledge system, should be aware that other knowledge systems have both validity and potential to contribute to human flourishing. Transformative and disruptive approaches may improve doctoral education. The problematic is therefore about the rethinking of dominant research traditions, neo-liberal demands, modernity and the role of knowledge production processes in society. Whose knowledge matters? Who benefits, and who decides?

South Africa's Higher Education institutions have seen many protests, seminars and research papers on decolonisation, and yet supervision models and pedagogy typically rely on entrenched Western research paradigms and methodologies. What is all-important in the neo-liberal system is the metric of production: time to completion. Decolonial scholars acknowledge that Western knowledge is valuable (Jansen, 2019; Mbembe, 2016), but can be damaging when it leads to a bias against other knowledge systems. Castle et al. (2021, p. 9) present a synopsis of the long-standing chain of critique not only of systems, institutions, curricula and pedagogies but of the moulding of the very Being of the African student:

> *Ngugi wa Thiong'o (1986) in Decolonising the Mind pointed to the internal recasting of values, identities and knowledges and the violence of the erasure of cultural wisdom. He emphasised the correcting of histories and the essential role of reclaiming language. The colonisers imposed their own sense of morality, patriarchy, religion and 'superior' knowledge.*

Castle et al. (2021, p. 9) go on to relate this to the doctoral level: 'It seems, however, that the supervision and doctoral space, perhaps because the PhD is a degree in a specialised aspect of a discipline, often escape the focus on decolonising supervisory practice, interactions and research frameworks'. Furthermore:

> Mbembe (2016) *explains how marginalising not only African knowledge but Africans persists through the origins of the modern university in Africa as an offshoot of Eurocentric universalism; and predicts (2016) that future African universities will be multilingual. The new age of the Anthropocene calls for a paradigm of "radical sharing and universal inclusion." (Mamdani, 2016, p. 28)*

Castle and colleagues' (2021) argument continues to be pertinent to the setting of our discussion in relation to outcomes of the PhD set by SAQA.[1] Ironically, the doctoral outcomes call for the pushing of boundaries of knowledge, methodologies, ethics and literature, and yet for supervisors and examiners, the conventional canon and assessment are often rigidly set. Odora Hopper's (2001) call for 'epistemic disobedience' has not been heard a decade later or perhaps; as supervisors, we do not have the courage to disrupt or to subject our students to risk of failure within the 'mainstream system'. As one student who was heavily criticised for her IKS thesis asked after a gruelling defence: 'What does a decolonised PhD look like?'.

Continued coloniality often shapes supervision practices and the kind of knowledge that doctoral candidates engage with and contribute to. Reliance on traditional, imported conventions is largely taken for granted at doctoral level. Some recent changes include having theses written in African languages (e.g. Kapa, 2019[2]; Gumbi, 2018). There are also increasingly innovative, collaborative PhD structures and pedagogies, as well as numerous studies on aspects of indigenous knowledge and integration into curricula (Ogunniyi 2004; Seehawer, 2018; Khupe, 2014; Mpofu, 2016). All provide motives for freeing our attachment to 'one kind of knowledge', 'one right answer' and 'one worldview' (Castle et al., 2021, p.10).

Understanding the challenges in DE is deepened by the body of work which addresses the scholarship of postgraduate teaching and learning, decolonisation and diversity (e.g. Manathunga, 2020; Motala et al., 2021). Other research focuses on indigenous research methodologies (Seehawer et al., 2022); academic literacies and forms of research capacity development (e.g. Lamberti & Keane, 2021; Naidoo et al. 2019); agency and knowledge production (e.g. Fataar, 2018; Ndofirepi & Gwaravanda, 2019); disrupting ethical 'clearance' assumptions (Keane, 2021); career pathing, industry partnerships and graduate attributes; the SA research enterprise (e.g. Mouton et al., 2015); institutional culture and context; and

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[1] SAQA South African Qualification Authority.

[2] https://thisisafrica.me/african-identities/nompumelelo-kapa-isixhosa-phd-thesis-fort-hare/

the pedagogy of supervision and gender and the 'leaky' post-graduate pipeline.

Reviews of DE policies in SA have been conducted by Cloete et al. (2015) and Jansen (2011). Cloete and colleagues (2015) highlight the challenges of doctoral education in South Africa by arguing for increased demands for the doctorate; growth in doctoral output; demands for efficiency transformation; and quality. In their book, however, there are no references to indigenous knowledge. What is covered are references to scholarship in HE, the knowledge economy and the discourses of inclusion of previously marginalised students into the mainstream.

Jansen's (2011) review of the quality of DE raises concerns that increasing quantity across the 27 South African universities would compromise quality. Jansen refers to recognising the classes/categories of research problems as a quality matter, and in his review, an example of indigenous knowledge focus includes migration patterns of indigenous peoples such as the Kalahari San. References to knowledge in doctoral education were used in this report, in support of the notion that an intimate knowledge of the subject is required (Jansen, 2011, p. 14). Jansen (2011) makes the point that knowledge is key to quality, in the sense that knowledge 'distinguishes top scholars from the rest: the capacity to read voraciously, a hunger to know what's "out there" in the literature on the subject, a never-ending quest for grasping new knowledge in the field' (Jansen, 2011, p. 140).

It is worth noting that references to knowledge in the Jansen review reflect the assumption that scientific knowledge exists "out there", in peer-reviewed literature, and that quality is also about pushing back the "frontiers of knowledge" (p. 145). This review of quality issues in doctoral education made no reference to diverse knowledge systems, nor did it acknowledge the existence of indigenous knowledge. Terms relevant to the need to transform knowledge such as 'transformation', 'social justice', 'epistemicide', 'cognitive justice' and 'decolonisation' do not appear in this review. The prevalent absence of reference to IKS in reviews of DE in South Africa underlines the need to consider in what ways policy supports and guides the inclusion of Indigenous Knowledge at doctoral level and how this contributes to the improvement of 'quality'. This is concerning considering the review was published 7 years after the IKS policy was adopted by the SA government in 2004 (as described below).

IKS policy and higher education in South Africa

The national policy on IKS (Department of Science & Technology, 2004) is the culmination of various research programs and deliberations in the fields of science, technology, social development and other government and community sectors. The IKS policy (2004, p. 3) aims to recognise, affirm, develop, promote and protect indigenous knowledge in South Africa. The policy recognised the potential of IK to enhance our human understanding and well-being. Most exigent in a decolonised context is the transformative challenge of developing appropriate protocols, codes of conduct and terms for any dialogue and integration. At a systems level, IKS require establishing an ethically sound and ecologically constituted way of thinking; affirming the multiplicity of worlds and forms of life; creating a shared paradigm shift of how we come to know; developing a self-reflexive praxis; establishing new evaluation criteria; and a transformation to new futures. Such a transformation recognises cognitive justice as a key concept in education, pedagogy and research. Odora Hoppers (2014) refers to this yet unrealised goal as a crisis of the academy. Fataar and Subreenduth (2016) urge a rethink of worldview and practice, of ways in which disciplinary knowledge is organised and developed, and ontologies, epistemologies rethought to become truly representative of Africa.

Analyses of the knowledge problem in higher education in South Africa have been shaped by the writings of De Sousa Santos (2009), who describes the crisis as Western Abyssal thinking. Social reality is divided into two realms—two sides of the line—realities existent and non-existent. This is a strong argument that the struggle for global social justice must be a struggle for global cognitive justice, building on notions of 'ecologies of knowledge' (www.eurozine.com). The latter is about recognising 'the plurality of heterogeneous knowledges (one of them being modern science) and on the sustained and dynamic interconnections between them without compromising their autonomy. The ecology of knowledges is founded on the idea that knowledge is inter-knowledge' (De Sousa Santos 2009: 11/33). Cognitive justice is about going beyond abyssal thinking (De Sousa Santos 2009).

The repertoire of studies conducted over two decades by the UNISA SARCHI Chair in Development Education, Catherine Odora Hoppers (2001a & b; 2002), has served two purposes: to clarify concepts and theories of IKS as bases of Government IKS policy by the Department of Science and Technology and guide the implementation of IKS policy and contribute to setting the research agenda for transforming higher education—research as well as the science industry. Odora Hoppers claims that the teaching of Western science in African schools has the deliberate political agenda of rewarding mimicry, passivity and assimilation. Kuiper concurs that the problems of rote-learning and passive acceptance of power relationships and curricula rest largely on pedagogy (Kuiper, 1998). Odora Hoppers (2001b) sees these negative influences on African education as not only the process and legacy of colonisation, but also the

current process of globalisation. She claims that globalisation inculcates and is driven by individualism, indifference to others and competitiveness.

IKS policy formulation in South Africa

IKS policy of 2004 (RSA, Department of Science and Technology) has four policy drivers: the affirmation of African cultural values in the face of globalisation; the development of the services provided by traditional healers; promoting the contribution of indigenous knowledge to the economy; and interfacing with other knowledge systems. A strong focus is placed on intellectual property, and progress with policy implementation has included various parliamentary reports by the Department of Science and Technology.

Specific reference is made in the policy to the importance of IKS in higher education. The government Department of Science and Technology has taken measures over the last decade to simulate research in the higher education systems by means of focused programs (Department of Science and Technology, 2004). Several authors have pointed to the need to integrate the actual IKS policy into higher education (e.g. Kaya & Seleti, 2013); and others have explored the implications of these policies for higher education (Kaya, 2013; Mkhize, 2014; Odora Hoppers, 2015).

Conceptions of cognitive justice build on original analyses by Visvanathan (2009) and involve promoting knowledge plurality. Odora Hoppers, Astrand and Van der Westhuizen (2016) have argued for cognitive justice as challenging the mono-epistemic world that modernity has created worldwide and have emphasised the plurality of learning and knowledge creation and its dissemination, and the 'consequences for the plurality of values, diversity, history, culture, creativity and fairness in society'.

Our analysis of the South African IKS policy followed the Bacchi's (2009) framework/approach of problem formulation and policy as change proposal. To understand the articulation between IKS policy and education policies, we also did a content analysis of education policies to see how links have been made. Bacchi's (2009) framework assumes that all policies are developed to solve a problem—without always defining the problem. The method involves understanding the issues which drove the initiation of the policy, how these issues are addressed in the formulated policy, and how people involved are treated and encouraged to think about/construct themselves in relation to IKS (Bacchi, 2009, p. 1).

Following the Bacchi (2009) framework, we note that the South African IKS policy is aimed at addressing problems of knowledge exclusion and representativeness in society. Exploration of IKS in relation to higher education means investigating whether supervisors and doctoral candidates are aware of policy documents for IKS as well as the opportunity to engage with these. We analyse what underlying problem the policy is trying to address, as well the gaps in IKS policy and the implications for implementation in doctoral education.

The 'problem presentation' in the IKS policy emphasises the need to affirm African cultural values in the face of globalisation; to promote a positive African identity; to find practical measures for the development of services provided by IK holders and practitioners, with a particular focus on traditional medicine, but also including areas such as agriculture, indigenous languages and folklore; and to clarify and enhance the contribution of indigenous knowledge to the economy—the role of indigenous knowledge in employment and wealth creation; and to promote interfaces with other knowledge systems. For example, indigenous knowledge is used together with modern biotechnology in the pharmaceutical and other sectors to increase the rate of innovation (DST, 2004). We now relate this policy to the imperative of transforming education in South Africa.

Cursory analysis of references to IKS in Education policies in South Africa

An initial analysis of Education policies referred to below indicates a sparce mention of the terms 'indigenous', 'indigenous knowledge' and 'IKS'. In the Education White paper 3 published in 1997, for example, the policy options for the transformation of higher education in South Africa were presented. The term indigenous is used once. However, other indications of inclusion are present:

The role of higher education in promoting, and creating conditions for the development of, all South African languages, including the official languages, the Khoi, Nama and San languages, and Sign Language, and in elevating the status and advancing the use of the "indigenous" languages of our people the role of higher education in preparing sufficient language teachers, interpreters, translators and other language practitioners, to serve the needs of our multilingual society. (p. 22)

References in the Education White Paper to the role of knowledge in education are limited to references to the knowledge economy, the knowledge era and the need for education to respond to such contexts. In the RSA National Education Policy Act 27, 1996, no references are made to IKS. Similarly, in the Government Gazette published in 2017, the Policy for the Post-school Education and Training not one reference is made to IKS. In the National Development Plan 2030, "Our future, make it work" was published by the RSA Presidency. The purpose is to eliminate

poverty and reduce inequality by 2030 through uniting South Africans, unleashing the energies of its citizens, growing an inclusive economy, building capabilities and enhancing the capability of the state and leaders working together to solve complex problems. Minimal references are made in the National Development Plan (NDP) to the need to grow IKS. In this policy, some general statements are made about 'knowledge' but not explicitly related to IK:

> *Knowledge is the systemically integrated information that allows a citizen, a worker, a manager, or a finance minister to act purposefully and intelligently in a complex and demanding world. The only form of investment that allows for increasing returns is in building the stocks and flows* of knowledge that a country (or company) needs, and in encouraging new insights and techniques. (NDP, 2012 p. 94)

From this brief analysis of the NDP, it seems reasonable to say that some strong and explicit references have been made to IKS in relation to science and technology, intellectual property, traditional knowledge, medicine, social development and justice ideals.

However, the analysis of a selection of education policies listed above, on a surface level of word counts, indicates a glaring absence of the use of terminologies such as indigenous, indigenous knowledge and IKS. We note that the low frequency counts do not mean that there is an absence of discussions of the need to transform the system and curricula. Education policies have limited reference to terms and concepts of indigenous knowledge and IKS; however, they do refer to concepts of decolonisation, epistemics access, inclusion and social justice.

There also seems to be a lack of clarity of how knowledge is defined across policy documents. Hoppers and Sandgren (2014) attribute this to the understanding of higher education knowledge as referring to knowledge societies, knowledge economies and scientific knowledge. There seems to be little notion of the social contract that should underpin the different understanding of knowledge in diverse settings. In short, the absence of references to indigenous knowledge in HE policies is problematic.

Australian First Nations author Maria Raciti

In the following Australian section, a very different approach is deliberately taken in comparison with the South African policy analysis. Instead of analysing how IKS plays out or, more often than not, does not play out in Australian doctoral and higher education policies, three Indigenous authors illustrate how Indigenous Knowledge operates in diverse ways in relation to the following:

- Micro individual First Nations histories and macro higher education policies
- Indigenous understandings of the country
- Doctoral education policy of Australia's only First Nations dual sector higher education provider, Batchelor Institute in the Northern Territory.

First Nations author, Maria Raciti provides an ethnographic approach to higher education policy analysis. She adapts Manathunga and colleagues' (2020) time mapping methodology presenting a text-based account of the intersection between her own journey into and out of higher education and Australian higher education policies. She first presents her current positioning/standpoint and then details three critically defining intersections between her micro-history and Australian higher education policies. Authors, Kathryn Gilbey and Sue Stanton, then outline how IKS operates in the doctoral education policy of Australia's Indigenous higher education provider, Batchelor Institute, from their perspectives as Director of Graduate Studies and Kungarakan Elder Advisor in Academic and Cultural Leadership.

Maria has maternal Aboriginal ancestry. Her maternal grandparents were well-known political activists in the 1960s and 1970s fighting for Indigenous self-determination. Colonial practices meant that her maternal grandparents had access to minimal, primary school education. Neither of Maria's parents' education extended past primary school. From a background of colonisation, assimilation, intergenerational educational injustice and low socioeconomic status, Maria's education odyssey was a succession of obstacles. However, her tenacity served her well, and she had curated a program of research into educational justice that stems from her lived experience. She sees that her purpose is to 'clear the path' and 'light the way' for others from backgrounds like hers.

Maria uses first person to share three intersections between her higher education microhistory and Australian higher education policy (see Raciti, 2010 for a precis of Australian higher education policy reform). Intersection #1 is when I began to think about going to university. It was my ticket out of my small, regional hometown and its parochial ways. My mother always told me I could be anything I wanted to, and I believed her. This phase was more than ideation about going to university but also the crystallisation and manifestation of it. In Australian higher education policy, this was the era of the Dawkins' reforms (Croucher et al., 2013). In 1987, the government replaced the long standing the Binary System (comprising 19 universities and 69 colleges) with the Unified National System (UNS) of tertiary education. The UNS leads to mergers between universities and colleges and colleges seeking university status. The Australian Government funding was approximately 80% of institutional operating budgets, and the Higher Education Contribution Scheme (HECS) was

introduced in 1989 requiring students pay a part (about one fifth) of the cost of their university education. This era was a time of rapid expansion of the sector with recruitment, not retention, a feature of institutions. I enrolled in a college just over 3 h from my hometown so as not to be too close nor too far. Without financial assistance from the Government in the form of the Aboriginal Study Grants Scheme (ABSTUDY), this would never have been possible.

Intersection #2 was my journey out of university. Unfortunately, I completed my studies in the middle of Australia's deepest economic recession. I was one of four Indigenous graduates from my cohort of 100 + and at the time of graduation my college had been granted university status. In 1994, the UNS consisted of 36 universities. Despite the university status and being among few Indigenous graduates at the time, I was no different to my Indigenous and non-Indigenous peers and struggled to secure full-time employment.

Intersection #3 was my re-entry into university. Some 2 years after I graduated, I secured an 8-month contract working in an Indigenous support unit at my university. Each day, I would look out my window at the building opposite and watch the academics. I began to think about an academic career, quickly enrolled in Honours degree, was awarded a First Class, applied for a highly competitive PhD scholarship and was successful. During this time, the Vanstone reforms were playing out and became the focus of my doctoral research thesis. The 1996 Vanstone reforms increased HECS fees; creating three tiers, the Australian Government funding of universities was reduced to around 57%, and competition between institutions began in earnest. These three intersections were the impetus for my program of research into educational inequality. This is where the river took me, and this is where I remain.

Australian First Nations authors Kathryn Gilbey and Aunty Sue Stanton

Kathryn Gilbey is a proud Alyawarre Arrelhe from Central Australia and Far Western Queensland. She is the Director of the Graduate School at Batchelor Institute. Her work is supported by Aunty Sue Stanton, who is a Kungarakan Traditional Owner/Custodian and Elder Advisor in Academic and Cultural Leadership.

The oppressed and the exploited of the earth maintain their defiance: liberty from theft. But the biggest weapon wielded and actually daily unleashed by imperialism against that collective defiance is the cultural bomb. The effect of a cultural bomb is to annihilate a peoples belief in their names, in their languages, in their environment, in their heritage of struggle, in their unity, in their capacities and ultimately in themselves.

It makes them see their past as one big wasteland of non-achievement and it makes them want to distance themselves from that wasteland. (Thiongo, 2005, p.3)

The Batchelor Institute sits quietly in the Australian educational landscape, the only dedicated First Nations dual sector institution. The graduate school within sits uniquely as a site of resistance to cultural bombs (Thiongo, 2005) and abyssal thinking (de Sousa Santos, 2014) that otherwise foreshorten and flatten too many First Nations' experiences of knowledge and academe. Therefore, we hold a moral imperative and urgency around the transformation of doctoral education. If the imperial response to collective defiance is the cultural bomb, those of us in a position to change/transform/disarm/disrupt it, must do, and urgently, so that the next and subsequent generations are not limited by such.

The inclusion of IKS at the core of our practice allows candidates and researchers to locate themselves using the affordances of IKS dynamic relational interactions and to position themselves with choice and through agency, in relation and resistance to western knowledge systems. The epistemic and cognitive violence that is perpetrated on the First Nations body in the western academy is thus disrupted, held at bay, accessible by the right means, and safely securely, as the specimen of a poisonous snake might be handled in a laboratory (if needs be). If cognitive justice lies outside of abyssal thinking, the First Nations candidates at Batchelor Institute can practice knowledge plurality and go beyond what is unimagined through western thought. Instead, knowledge is realised in the responsibility we have to practice wisdom, in old ways of deep listening, hearing and reading country and with knowing that there is more than one way to be in the world.

Aileen Moreton-Robinson and Maggie Walter (2009) write about the commonality of experience that is shared by Aboriginal women.

Although individual experiences differ, the worldview and reality of being an Indigenous woman is intertwined with lived experience. The intersecting oppressions of race and gender and the subsequent power relations that flow from these into the social, political, historical and material conditions of our lives is shared, consciously or unconsciously. These conditions and relations discursively constitute us in the everyday. (p. 5)

We learn about ourselves by the way people behave towards us and others. We are constituted by these discursive interactions, and we naturally identify, or do not identify, with people who have similar stories, shared experiences, a discursive familiarity. We all form our collective identities by the way that others react to us, this journey of highs and lows, of small interactions, of gut feelings and hateful stares,

of shared consciousness and mutual understandings and of invisible barriers and beckonings that are felt but not seen. A journey that is honoured but from which we seek divergence, so that in conversation with the next generations, different discursive familiarity and a larger dialogue can emerge. To speak to the future, the next generation the reader—we see you, can you hear us tell you we love you, we are proud of you. Know that when we trust in our old ways, we walk with strength, cultural bombs or not.

So cognitive justice happens in spaces beyond abyssal thinking, mono-lingualism and mono-epistemics. It is vibrant, a recitation in those quiet spaces where we can hear the silences in between our Elder's (Aunty Sue Stanton's) lines in her poetry so that when she reads the wind, and hears the old people, we recognise it on a deep and visceral level. We see ourselves and our elders and our childrens' childrens' children in these spaces and silences, and this is where our textual or discursive familiarity becomes [us].

Our intergenerational knowledge is at our fingertips; we stand in it. It comes through us—just as does the wind, the dirt, the water; ampere, country. Elemental and profound as that seems, material and precious as this is, we wonder—why are others so unable to recognise the knowledge held and shared in country and people? Is it because extant and dominant forms of thinking, disciplinary approaches and delimiting notions have provided such boundaries around 'knowing' that they have driven away the very fibres of silence, of not knowing and of openness to 'knowledge'.

Sustainable approaches to incorporating IKS in doctoral education

In this final section, we seek to bring the South African and Australian approaches to IKS into conversation before reflecting on some possible joint principles we would like to suggest as a way of developing long-term and meaningful strategies for including IKS in doctoral education. It is clear from the South African policy analysis that discourses about decolonisation, social justice and transformation have been a central feature of South African higher and doctoral education policies since the end of apartheid. While the Indigenous Knowledge Systems policy was only introduced in 2004 and does not appear in many of the other higher education policy documents, there has been a concrete policy agenda to incorporate IKS policies in the areas of science, technology and social development with an affirmation of African values, the development of traditional healer services, promoting the contribution of IKS to the economy and considerations about interfacing with other knowledge systems being actively encouraged.

This contrasts with Australian higher and doctoral education policies where there is no or little policy discourse about decolonisation and IKS. Instead, terms like social justice, intercultural knowledge and communication skills and embedding First Nations perspectives are evident in higher education policies but not often covered specifically in doctoral policy despite recent initiatives to double the funding for Indigenous doctoral completions (ACOLA Report, 2016). Australian governments, higher education policy makers and leaders are yet to actively embrace the significance of decolonisation and First Nations knowledge.

For this reason, the First Nations authors focused instead on how they enacted Indigenous Knowledge Systems in their own experiences of higher and doctoral education. They shared how Indigenous Knowledge Systems play out for the Indigenous authors in their own life history intersections with Australian higher and doctoral education policy and in their application of IKS in the only First Nations dual sector tertiary institution in Australia. This approach of storytelling is also a key feature of Australian First Nations knowledge approaches (Manathunga et al., 2022).

While the South African and Australian approaches to IKS are rendered differently in this paper, and rest upon diverse historical trajectories, there are some tentative joint principles that we would like to put forward to begin addressing how we might develop sustainable approaches to incorporating IKS in doctoral education. Our diverse analytical, narrative and ethnographic approaches to IKS have highlighted the need to revise programmes of doctoral education to include extended notions of knowledge/knowledge plurality in all academic disciplines. We argue for a more purposeful and engaged awareness of the needs for redress of knowledge marginalisation and the exploration and advocacy for an Afrocentric and Australian First Nations stances to doctoral research and supervision. In this regard, conceptualisation of praxis frameworks in doctoral education would benefit from principles of cognitive justice which can be derived from the work of Visvanathan (2009), Odora Hoppers (2021) and De Sousa Santos (2018a).

As a result, knowledge redress and democracy would be promoted in doctoral education, and knowledge plurality would become a theory of citizenship enacted in doctoral education. This plurality would incorporate oral, textual, spiritual, creative and digital forms of knowledge as illustrated by the poetry, storytelling and ethnographic policy analysis included in the Australian section of this paper. This plurality would strengthen the democratic imagination and future orientation of doctoral education and allow the 'story and the storyteller [to] survive in the twenty-first century' because, as Visvanathan (2009, p. 6) argues, knowledges are not methods but ecologies, ways of life 'connected to livelihood, a life cycle, a lifestyle'.

These approaches to knowledge plurality would also allow doctoral education to move beyond the constraints of disciplines and subjects (Odora Hoppers, 2002) to more holistic approaches were transdisciplinary dialogues between traditional disciplines and between diverse sources of knowledge (e.g. scientific; poetic; creative; historical, spiritual) can be foregrounded. This 'diversity of knowledges, un-museumised and dialogic, becomes an anchor for an inventive democratic imagination' (Visvanathan, 2009, p. 7) where all knowledge systems are equal, partial and complementary (Visvanathan, 2002; van der Velden, 2004). Such an approach to knowledge creation would be based upon 'a non-market, non-competitive view of the world, where conversation, reciprocity, translation create knowledge not as an expert…but as a collaboration of memories, legacies, heritages, a manifold heuristic of problem solving, where a citizen takes both power and knowledge into his own hands' (Visvanathan, 2009. P. 9).

Such a democratic and dialogic approach to knowledge creation would focus on equal and respectful transcultural and transdisciplinary knowledge exchange in doctoral education. These forms of mutual cultural knowledge exchange involve developing the following supervisor and doctoral candidate capabilities that are designed to enact genuine engagement with ecologies of knowledges approaches (Singh & Qi, 2013):

- A pedagogy of deep listening where university staff and students respectfully engage in learning about the experiences, histories, languages and cultural practices of African, First Nations and transcultural peoples
- The careful interrogation of academic staff and students own cultural standpoints
- The need to actively and critically deconstruct Northern knowledges, research processes and validations
- The need to engage in critical Whiteness studies to unpack and challenge white privilege (especially by white staff and students)
- Devoting energy and resources to reconstructing and revaluing Indigenous knowledges
- Engaging in South-South dialogue as we do in this paper
- Engaging in South-North dialogue, where African, First Nations and European knowledges are all drawn upon (Manathunga, 2018)

Of course, developing these capabilities in doctoral supervisors would require a significant amount of courage on their part in travelling beyond the ongoing dominance of Eurocentric, Western White approaches in research. This would need to be supported by comprehensive and nuanced supervisor professional development that went beyond cultural competence training to enhanced levels of transcultural

communication that fostered deep understandings of the wisdom and power of Indigenous knowledge. Perhaps this could act as a first step in reversing the epistemicide of Indigenous knowledges in South Africa and Australia.

As illustrated by the polyvocal and multimodal character of this paper, engaging in genuine transcultural and transdisciplinary dialogues is complex. It requires us to combine more traditional, academic, analytical styles of writing, with innovative narrative, creative and ethnographic approaches. It requires a great deal of flexibility, good will and trust to create spaces where all voices, approaches, epistemologies and belief systems are appreciated and regarded as equally significant. This will require new conceptual tools and approaches because, as Lorde (1984) argued, 'the master's tools will never dismantle the master's house'.

Declarations

Ethics approval Ethical approval was received for this study.

Conflict of interest The authors declare no competing interests.

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