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Why Ecology of Knowledges and Multilingual Habitus Matter in Higher Degree Research Student Training

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Abstract

Scholars speaking from Southern perspectives have long argued in favor of recognizing diverse ways of knowing and against the hegemony of Euro-modernist epistemologies that have crystallized into orthodoxy within the academy. Euro-modernist epistemologies proceed from positivist “scientific” principles that turn a blind eye to the diversity of ways of reading and interpreting social experience. They reflect and represent subjective perceptions about what constitutes valid and legitimate knowledge. In this paper, we address the question: How do we prepare higher degree research students for the opportunities that flow and strategic challenges that arise from a diverse global network of knowledge societies? We suggest “ecology of knowledges paradigm” and “multilingual habitus” as the linchpin of higher degree research student training. This approach brings together diverse linguistic and cultural traditions to mediate pathways for producing interconnected forms of knowledge that transcend the limits of monolingual and mono-epistemic ways of seeing. The argument is that the struggle for cognitive justice in education and training is inseparable from the broader struggle for global social justice.

Keywords: Ecology of knowledges, ontologies of incompleteness, multilingual habitus, Southern discourse systems, higher degree research training, epistemic pluralism, social justice, cognitive justice
Introduction—Framing the Problem

At the heart of higher degree research student training must be the desire to nurture a cohort of globally networked future academic and research leaders. This entails equipping research students with requisite skills that would enable them to join the global network of knowledge societies in their fields of research. Current mainstream approaches to research training policies at many universities around the world fall short of meeting the premium due to privileging and over-reliance on Western epistemologies as the basis for producing and communicating research. Western epistemologies are inadequate on their own—withstanding their hegemonic presence in universities and other centers of research training and development. In *Southern Theory*, Raeywn Connell identifies at least four problematic contors of Western epistemologies:

- First is the claim to exclusive *universality* whereby the very idea of mainstream social theory involves talking about universals and generalizations as if the whole world was a homogenous continuum. The fatalistic assumption of this claim is that “all societies are knowable in the same way and from the same point of view” (Connell 44). This exclusive form of universality implies that what is produced in the center is relevant to other contexts. But there are other views on universalism that are inclusive. Kwesi Kwaa Prah, in *Culture: The Missing Link in Development Planning in Africa*, states that inclusive universalism is underpinned by the fact that “while cultures vary from one society to another, there are also features of different cultures which are common to humanity as a whole” (161). In this article, we propose rejecting exclusive universalism and argue in favor of establishing ways of upholding inclusive universalism whereby the totality of global knowledge systems that are offshoot of the creative ingenuity of humans are brought to the table of ideas on how best to train higher degree research students.

- The second is that of *reading from the center*: that is, Northern epistemologies construct a social world read through the eyes of the metropole and not through an analysis of the metropole’s action on the rest of the world. What is overlooked here is the fact that the experiences of the rest of the world cannot be fully represented in Northern models that arose out of a colonial metropolitan reading of the world.

- The third contor is one that Connell calls *gestures of exclusion*. This is about the total absence or marginalization of theorists from the former colonized world in metropolitan texts and discourses on regimes of teaching, research and training.

- **Grand erasure** is the fourth contor. The point here is that when empirical knowledge and theorization about teaching, research and education in general are seen as coming solely from metropolitan society, the immediate effect “is erasure of the experience[s] of the majority of human kind from the foundations of social thought” (Connell 46).
As outlined by Connell, scholars in both the Global North and Global South have been trained to follow the habits and practices of the Western tradition of knowing. This highlights the problem of dividing global knowledges by geographical frames. Although the Global South/Global North discourse might seem to suggest the world is split into two geographical zones, we wish to clarify that our use of the term Global South is metaphorical. We follow de Sousa Santos’s Épistémologies du sud notion of the Global South as “a metaphor for human suffering caused by capitalism and colonialism on the global level, as well as for the resistance that seeks to overcome or minimize such suffering” (de Sousa Santos, "Épistémologies Du Sud," 39). As Isabella Léglise advises in Multilingualism and Heterogeneous Language Practices, such definition of “Southern” or the Global South captures a phenomenon that exists both in the North and in countries of the South.

Therefore, as Pennycook and Makoni suggest in Innovations and Challenges in Applied Linguistics, the Global North and South are to be understood as a geopolitical, metaphorical and epistemological concept. Despite the fluid and intersecting nature of onto-epistemic situatedness, scholars around the world continue to embrace and reinforce apriori concepts and categories derived from Western knowledges—albeit subconsciously—as valid and legitimate pillars that underpin the way we teach and train higher degree research students. In part, the theoretical complexities of distinguishing the Global North from the Global South, derive from the way Western knowledges psychically and physically persist across territories. If the idea of the Global South has been produced out of a resistance to Western rationality, then identification with Southern sensibilities is in part dependent on the West for its visibility. The concept of the South exists by first acknowledging the presence of the West. In this sense, for a Southern onto epistemic sensibility to appear, the West becomes the reference for its discursive construction. Ironically, to think, speak, do and be within a southern onto-epistemic frame is politically constituted out of coming to know the West. Here, as is the case with all epistemologies, Western ways of knowing are, ipso facto, politically interested and ideologically laden. They insert themselves into and are internal to the concept of the Global South. Western epistemologies assert pretentions of universal relevance but are neither value-free nor intrinsically objective. They politically infect the Global South’s assertion of presence. In "Southern Development Discourse for Southern Africa," Ndhlovu says the Global North does not and cannot speak to every context in the world because it emerged out of specific social and cultural conditions of the Northern orbit of the globe. He posits that Western traditions have used the globe to rehearse and perfect the dissemination of its rationality and reasons. Its presence constitutes the reason for the Global South’s being. The challenge then is how the Global South might escape the capture of Western traditions while still remaining in dialogue.

The argument we advance in this paper is that mainstream Western forms of knowledge that underpin higher degree research training do not leave enough room for real-world interventions made possible by other epistemologies. As the late Ugandan Professor, Dani Wadada Nabudere (Afrikology, Philosophy and Wholeness) reminded us, there is “great deal of uncertainty in the way we understand the
world, as well as in the way human beings understand each other in different environments and cultural contexts.” (1) If in this uncertainty, as described by Nabudere, the incompleteness of any system of knowledge might also be perceived, then diverse epistemological traditions must complement each other, thus resulting in ecology of knowledges that accord with the realities of a globalized and interconnected world. In such an ecology, scholars can adopt what Foucault in *The Subject and Power* calls plural subject positions, in dialogue with diverse onto-epistemic resources.

Therefore, in line with Jordão’s *Trickstering Applied Linguistics*, a key motivation of our project is that “knowledge is produced in many languages, cultures and cosmovisions that are inaccessible to us, be it because such knowledge is produced in languages we are not familiar with, or because it is out of reach due to publishing politics or the like.” (840) We posit that a rich collection of thought from a broad spectrum of epistemological traditions or ecology of knowledges (de Sousa Santos, *Another Knowledge Is Possible*) is required to creatively innovate, develop new models and push the frontiers of the existing body of thought. Our aim is to build on and extend ongoing conversations on how we could improve higher degree research student training policies. Our entry point is one that seeks to leverage students’ multilingual abilities and diverse cultures of knowing as a way to facilitate the communication of findings to a broader academic and non-academic audience. The significant point we posit is that a key goal of research student training is to enable them to join and engage with multiple subject positions, in a vibrant network of global knowledge societies. As de Sousa Santos argues in *Epistemologies of the South*, this is because no single type of knowledge can account for all possible interventions in the world. Unless, of course, the objective is to create one cosmopolitan society, inhabited by normalized and homogenous scholarly subjects, which would be a rather unrealistic aspiration.

The need to leverage and embed diverse ways of knowing into policies for training higher degree research students to enhance success and impact in a globalizing and interconnected world is urgent and timely (Cuppes and Grosfoguel; Grosfoguel et al.). To this end, we explore possibilities of improving how we train research students through promoting cross-cultural transference of knowledge systems. We address the key questions posed in this paper by proposing a framework that draws on de Sousa Santos’s notion of ecology of knowledges paradigm as explicated in *Another Knowledge is Possible*; and the multilingual habitus approach pioneered by Ingrid Gogolin in “The Monolingual Habitus”. These form the basis for exploring alternative strategies we propose.

**The Limits of Translation and Monolingual Worldviews**

Uninitiated higher degree research students of philosophy, sociology, linguistics, social theory (and many other social sciences) may be excused for assuming that the English language versions of texts by leading thinkers such as Michel Foucault, Antonio Gramsci, Ferdinand de Saussure, Ngui wa Thiong’o, Frantz Fanon, among others, are original sources. Such an assumption is traceable to the ideological habits, practices and perceptions about English as the de facto language of thought and knowledge production.
While it might be easy to think that English is the global lingua franca, a British Council article titled *The English Effect* indicates that 75 percent of the world does not speak English. The majority of leading social science theorists published their works in languages other than English—German, French, Italian, Gikuyu, Norwegian, Swedish, Japanese, and Chinese among others. As Walter Benjamin advises in *The Task of the Translator*, English translations of these works are only near-equivalents of their originals because “no translation however good it may be can have any significance as regards the original.” (254) A source in the original language establishes the locus of cultural production and its potentiality prior to the translated version’s erasure of meaning and inauguration of supplementary and hybrid representation. This is to say that the ontologies of given cultures and the experience of ontic categories, such as time and space, are rendered intelligible through the distinctiveness of a language. The difference between one language and another provides a different access to things in the world. While not denying the emergent properties of any language, Homi Bhabha (*The Location of Culture*) suggests that every language is characterized by its own hybridity and ambivalent relation to a wider world, its very iterability constitutes its difference: the site of enunciation makes visible and sayable the immediacy of experience and perception as a dynamic system of thought. Here the original need not be considered an archaeological artefact colonized by its translatory supplement, rather it instantiates its vitality through denying its spatial and temporal fixity. The enunciative potential of the original need not be bound by the geographical fact of birth as the site of production, but by its capacity to iterate and freshly generate in a mobile spatial and temporal field. By demanding to create, be heard and felt beyond borders, the original deterritorializes its difference.

Derrida,¹ in *Limited inc: abc* and *Writing Difference*, says this is not to suggest that the problem of signifying meaning, or its deferral, is peculiar to translation between languages. The challenge of translating different systems of thought offer both problems and possibilities that transfer within and across the matrix of global cultures. In part, the problem of producing and disseminating knowledge within any communicable event rests on the interpretation of what has been previously spoken: in the event of citing a thought, a certain rupture occurs with the prior event. According to Stephen Kelly² (*Governing Literate Populations*) if the trace of what has been said is present in the emergence of the new thought, then this iteration of what has gone before leaves a residue: the cinders of a knowledge unexpressed. In the unfolding of a new communication, these cinders imply the destruction of experience; or as de Sousa Santos suggests, an epistemicide.

On the other hand, new interpretations imply a supplement to what has already been communicated, which in turn offers the possibility of creativity and regeneration. In Benjamin’s terms, the problems of translation are countered by its aesthetic possibilities. The impossibility of certain translation and interpretation opens the space for all onto-epistemic systems to be put into non-dominant positions. As Deleuze³ might have suggested, the reterritorializing of given Eurocentric practices offers the possibility for reterritorializing hermeneutic inquiry founded on a diagram of equality in which *all* cultures are in minor relation. The deterritorializing of translation practices, grounded in practices of
negotiating knowledge and meaning, might help establish the anti-hegemonic conditions for flows of (Moll et al., "Funds of Knowledge for Teaching") knowledges between North and South (Kelly, Governing Literate Populations).

A significant majority of higher degree research students are endowed with multiple linguistic, educational, cultural, and social experiences—also known as funds of knowledges (Moll et al.). But these funds of knowledges and capabilities are coded in multiple language varieties that are currently not being used as medium of instruction in training higher degree research students. Previous language education research has long established that people who study or do research in languages they know best are more creative and innovative than those who do so using less familiar languages (Clyne, Australia’s Language Potential; Hornberger; May; Singh). The following are some of the known contributions of multilingualism to creativity: enhanced mental flexibility, enhanced problem-solving capabilities, expanded metalinguistic abilities, enhanced learning capacity, enhanced personal ability, enhanced creative thinking skills, development of higher order interpersonal communication skills, and ability to multitask. These align with international graduate attributes for higher degree research student training (Singh and Meng in "Democratizing Western Research").

Having said the above, we wish to clarify that in highlighting the contributions of multilingualism to creativity, we are not reducing the ethical importance of transcultural onto-epistemic exchange to utilitarian and quantifiable skills. Multilingualism by itself cannot fully address the pervasive effects of epistemicide being perpetuated by recalcitrant monolingual ideologies in multilingual research. This is because the current mainstream notion of multilingualism (that we do not subscribe to) rests on “universal models of language, culture, and race as ranked and interconnected” (Heller and McElhinny, Language, Capitalism, Colonialism 59)—or what others have characterized as raciolinguistic ideologies.

We are, therefore, acutely aware of the entanglement of the mainstream notion of multilingualism and colonial language ideologies that were part of the broader political project of global coloniality—the obsession with creating hierarchies of humanity in order to justify the suppression of marginalized knowledge systems. The vast and expansive body of scholarship critical of what has come to be known as colonial linguistics has ably demonstrated that named languages—that form the basis for the discourse and praxis of multilingualism and multilingual education policies—are, in fact, at the service of Euro-modernist colonial matrix of power. Some, such as Makoni and Pennycook, in their Disinventing and Reconstituting Languages have gone as far as characterizing named standard languages as invented categories that need to be disinvented and reconstituted because they are semiotic artefacts of colonial archives of knowledge that betray “coloniality of language” (Ndhlovu, “Post-colonial Language Education Policy”, 133). In their most recent book, Innovations and Challenges in Applied Linguistics, Pennycook and Makoni push the envelope even further by pointing the laser light to questions of ontology. With a specific focus on research in applied linguistics, they question the discipline’s foundation on traditional science within the Eurocentric perspective: the central themes on rationality, linearity, development, and
disembodiment of science. A serious concern for Pennycook and Makoni is about how “the colonial linguistic project and its applied linguistics offshoot produced a vision of language that had little to do with how people understood language locally.” (79) This is an extension of an earlier argument by Makoni and Pennycook, to disinvent and reconstitute languages; and a reiteration of Pennycook's *Language as a Local Practice* thesis on language as local practice.

Three interrelated forces colluded in the Euro-modernist project of executing language-based forms of epistemicide: colonial imperialism, Christian modernity, modern nation-state ideologies, and technologies of orthography and orthodoxy. The upshot of all three processes combined was the invention of a set of narratives emphasizing the role of power to save, rescue and develop other people (Mignolo, *The Global South and World Disorder*). Hierarchies of humanity were produced through using the discursive constructs of language, culture and race. As Heller and McElhinny have argued such “ideologies of race and racism inscribed in teleological hierarchies of progress, and legitimized through ideas about nature, language, and culture rationalized imperialism and allowed even the most disenfranchised and discontented White workers to feel superior to people in (or from) the colonies, whether those white workers were in the colonies or at home.” (62)

It is evident here that these practices and discourses on languages, cultures and identities were at the service of the interests of the colonial archive of western knowledges about identities of the colonized and indigenous knowledges that were to be suppressed, erased or lost under colonial rule (Ndhlovu and Kamusella, "Challenging Intellectual Colonialism" 348). This, as Makoni ("African Languages as European Scripts") would suggest reduces standard languages into colonial scripts as European communal memory. Such were the socio-political and ideological conditions out of which emerged current mainstream discourses on multilingualism. For us then, the task at hand is not to merely change the narratives of how to train higher degree research students but also how to do so using decolonized understandings of cultural identities, language and multilingualism because the current mainstream “monolingual/multilingual dichotomy misdirects and misrepresents the notion of language diversity” (Ndhlovu, *Language, Vernacular Discourse and Nationalisms*, 61). Unlike mainstream multilingual education models that proceed through counting putative language-things, we follow the route of socially realistic multilingualism (Ndhlovu and Makalela, *Decolonising Multilingualism in Africa*; Winford, "Ideologies of Language"), which looks at languages through the prism or metaphor of “frontiers”; language as interconnected patterns and scrambled systems (Makoni, "From Misinvention to Disinvention of Language"). The approach we adopt, therefore, emphasizes the language practices and experiences of individuals and communities of practice as the entry point into the project of crafting multilingual models of training higher degree research students.
Uncertainties of Knowledge: The Case for Epistemological Renewal

The unprecedented rise in information communication technologies, migration, and movement of goods and services have seen the flourishing of global knowledge transfers in multiple languages (Ndlovu, *Language, Vernacular Discourse and Nationalisms*). It is a social justice and ethical imperative that multilingual forms of education, research and training become the norm in this interconnected world where monolingualism is increasingly becoming the illiteracy of the twenty-first century (Roberts et al., "Monolingualism is the Illiteracy of the Twenty-first Century"). Or as Pennycook and Makoni have suggested the disinvention of language requires an integration between discursive and non-discursive experiences of knowledge. As Immanuel Wallerstein points out in *Uncertainties of Knowledge*:

> we live in a very exciting era in the world of knowledge, precisely because we are living in a systemic crisis that is forcing us to reopen the basic epistemological questions and look to structural reorganizations of the world of knowledge. It is uncertain whether we shall rise adequately to the intellectual challenge, but it is there for us to address. (243)

How are higher degree research training systems responding to the challenges presented by these realities of our present times to better position research students for the competitive global market economy of the future? Responding to this question means joining ongoing intellectual and policy debates around the need for epistemological renewal and innovation. The aim must be to address the crucial problem of misalignment between the diversity of knowledge systems and traditions on the one hand, and current monolingual higher degree research and training policies, on the other. The higher education landscape is now a transient virtual space that is constantly under (re)construction (Taylor and Hughes, *Posthumanism and Higher Education*). However, the principles guiding the redesign of higher Education are normatively constrained by Eurocentric, post-positivist paradigms, which elide the opportunities of epistemological pluralism. We posit that all human beings are born into valid and legitimate knowledge systems that are disseminated through different languages and various other modes of knowledge transfer. The task of infusing epistemological pluralism in higher degree research student training is, therefore, an urgent and significant social justice matter in a rapidly changing and diverse global knowledge economy. Epistemological pluralism in higher education is a theme that has attracted the attention of quite contemporary scholarship. Recent research reports have approached the debate from a range of perspectives that include integrationism and posthumanism.

We build on and extend this previous body of work to develop an alternative and complementary approach that seeks to enrich theories on how to educate higher degree research students in ways that enable ethical and productive responses to transformations in global economic and political hegemony. We draw the attention of educators, policy makers and wider society to how the life-worlds and experiences of multilingual and multicultural research students can be integrated into higher education research and training policy frameworks. The overall aim is to push forward the agenda on epistemological pluralism to establish alternative research training programs that might enhance the
success and research impacts of higher degree research students. We specifically focus on the potential of research students’ multilingual abilities and epistemological frames to enhance the conduct of innovative projects and communication of findings to wider academic and non-academic communities.

Taking after de Sousa Santos, we seek to push the envelope of epistemological renewal in the higher degree research training landscape by calling “not for more alternatives but for alternative thinking about alternatives” (de Sousa Santos, Another Knowledge Is Possible, 10). Our goal is to probe the universalization of Western thought patterns that typically impose normative criteria and standards for evidence, validity, coherence and intelligibility in the academy (Buendia, "Fashioning Research Stories"; de Sousa Santos, Toward a New Legal Common Sense).

de Sousa Santos (Epistemologies of the South, 92) suggests that the topoi of any given culture is incomplete, and we might add, is open to the emergent processes of cultural production. This is to say that the topoi of any given culture are constrained by the illusion of totality. In order to “maximize the awareness of the reciprocal incompleteness of cultures by engaging in dialogue” (de Sousa Santos, Epistemologies of the South, 91), de Sousa Santos proposes a hermeneutics which is diatopical in character. For de Sousa Santos, a diatopical hermeneutics is “an exercise in reciprocity among cultures that consists in transforming the premises of argumentation in a given culture into intelligible and credible arguments in another” (de Sousa Santos, Epistemologies of the South, 91). The premise is that the language in which research is carried out and communicated, and the types of knowledges accessible to students, may either limit or aid spheres of possibility for student success and impact, but can be “corrected” or improved through direct access to the modalities of onto-epistemic pluralism.

Ontologies of Incompleteness, Ecologies of Knowledge

Francis Nyamjoh (Drinking from the Cosmic Gourd; "Incompleteness") weighs into the idea of incompleteness in the domain of knowledge production. In Drinking from the Cosmic Gourd, Nyamjoh draws on Amos Tutuola’s intellectual and literary tradition to proffer an alternative epistemological imaginary that seeks to unsettle and decenter the hegemony of Eurocentric dualisms. Nyamjoh’s project is anchored on the triumvirate of incompleteness, conviviality and interconnectedness. We return to these notions in a later section. However, suffice to say the point of greater significance in Nyamjoh’s thesis is one about why—in a world peopled by infinite possibilities, tastes and value systems—we are much better off working together and reaching compromises because our ideas are incomplete without the ideas of others. Additionally, there are no final answers in research; but only permanent questions and ever exciting new angles of questioning (Drinking from the Cosmic Gourd, 6-7) that call for collective creative imagination.

Echoing the ontology of incompleteness thesis, pioneering international social science theorists from the Global South have long argued in support of the promises that ecology of knowledges paradigm holds for articulating the possibilities of epistemological pluralism. The ecology of knowledges paradigm...
“is founded on the idea that knowledge is interknowledge. It is based on the recognition of the plurality of heterogeneous knowledges and on the sustained and dynamic interconnections between them without compromising their autonomy” (de Sousa Santos, *Another Knowledge Is Possible*, 66). This is about confronting and challenging the epistemological dominance of Western modern science, which has crystallized into some kind of global/universal orthodoxy in research and training programs. The critique of the hegemony of Western scientific thought is ubiquitous across a wide range of fields such as postcolonial studies, decoloniality, critical race, world systems, indigenous studies, development studies, sociology and critical applied linguistics (Andreotti et al., "Epistemological Pluralism" 40).

A crucial point at the center of the debate in the previous body of literature is one about unsettling a pedagogical posture that is based on the assumption that Western mainstream culture and knowledges are the global norm toward which all other (marginalized or peripheral) forms of knowledges and cultures of learning must gravitate (Battiste, "Bringing Aboriginal Education"). This ideological habit that universalizes dominant epistemologies overlooks two crucial points. First, that throughout the world, there are very diverse forms of knowledge of matter, society, life, and spirit. Second, that there are many and very diverse concepts of what counts as knowledge and the criteria that may be used to validate and legitimate forms of knowledge (de Sousa Santos, *Another Knowledge Is Possible*). The point of greater significance here is one about the impossibility of a singular, unified, universal and general epistemology that is relevant to all contexts at all times throughout the world. The challenge of inclusion and visibility implicated here can be overcome “as long as we drop the search for totality and recognize that we are always speaking from situated, and therefore limited, perspectives.” (Jordão, "Trickstering Applied Linguistics" 840)

In mapping out the key contours of an ecology of knowledges paradigm, de Sousa Santos goes as far as questioning the premise, explanations and assumptions of world unity that are projected in the habits and practices of Euro-North American scientific thought. He identifies these as including, but not limited to, notions of simplicity, symmetry, Newtonian causality, completeness, continuum, among others (de Sousa Santos, *Another Knowledge Is Possible*, 67). But there is more to the archaeology and phenomenology of knowledge than is supposed and acknowledged by these principles of Euro-North American modern science. A glaring blind spot in these Western conceptions of knowledge lies in the contradiction between the recognition of cultural diversity in the world on the one hand, and the lack of recognition of global epistemological difference (Mignolo, *Local Histories/Global Designs*) on the other. Taking after Ortega y Gasset (1942), de Sousa Santos brings notions of beliefs and ideas into the debate on knowledge systems:

The relationship between beliefs and ideas as related to science [must not be seen] as a relationship between two entities but rather a relationship between two ways of socially experiencing science. The [subtle] distinction lies in the fact that beliefs are an integral part of our identity and subjectivity, whereas ideas are exterior to us. While our ideas
It is on this perception about beliefs that non-Western forms of knowledge are often erroneously relegated to the domain of the “superstitious” and unscientific. But this is essentially a superficial distinction between “being” and “having.” Previous studies on beliefs and educational research have long established that it is difficult to pinpoint where knowledge ends and belief begins (Prajares, "Teachers’ Beliefs and Educational Research"). Prajares (310) posited a somewhat rhetorical yet significant prognosis of the knowledge/belief nexus: “The conception of knowledge as somewhat purer than belief and closer to the truth or falsity of a thing requires a mechanistic outlook not easily digested. What truth, what knowledge, can exist in the absence of judgement or evaluation?” Prajares goes on to draw on the earlier work of Lewis (see A Question of Values) who insisted that knowledge and beliefs are synonymous constructs in the sense that “the most simple, empirical and observable thing one knows will, on reflection, reveal itself as an evaluative judgement, a belief” (Lewis (1990) cited in Prajares, 313). To paraphrase Prajares, the point of greater significance here is that the origin of all knowledge is rooted in belief, and that ways of knowing are basically ways of choosing values.

We are what we believe but we also have ideas at the same time. Though knowledge (ideas) is widely perceived to be the domain of the “scientific” (in the Western modernist, positivist sense), it is also quite plausible to argue that science is a belief system. We have to believe in the habits, practices and ways of science in order to accept them as axiomatic (Stengers, "Introductory Notes"). At the center of the debate here is the fundamental point about existence of diverse and multiple ways of socially experiencing science, which must be integrated into one another in a judicious way. Herein lie the promises and spheres of possibilities of an ecology of knowledges paradigm, which is a counter-epistemology aimed at unsettling the monopolistic tendencies of modern Western scientific thought. The ecology of knowledges paradigm proceeds from two social and cultural developments. The first is about the new political emergence of peoples and worldviews from societies in the periphery of the modern world-system where the links between modern science and the designs of colonial and imperial domination exist side by side with other “non-scientific”/non-Western epistemologies that prevail in people’s everyday practices. The second is the unprecedented proliferation of alternatives that cannot be brought together under the banner of a single, unified global alternative (de Sousa Santos, Epistemologies of the South; de Sousa Santos, Another Knowledge Is Possible).

It is under these circumstances of global epistemological “paralysis” (for want of a better word) that the ecology of knowledges paradigm emerges to provide epistemological consistency in ways that accord with pluralistic thinking in our current globalized yet culturally diverse world.
Unsettling Monolingualisms in HDR Student Training

The language and content of conversations in mainstream scientific research may either hinder or enhance our ability to have a much broader vision of what we do not know as well as what we do know. The language we use to communicate research can either open or close possibilities of engagement with epistemological pluralism. Here we need to be concerned that the locus of enunciation is not reduced to a generalized form of speaking the “truth.” Rather an affinity between voices that refuses to be captured by the forces of Eurocentric rationality opens a space for difference to appear. Indeed the project of disseminating colonial knowledges via a lingua franca “has little to do with how people understood language locally” (Pennycook and Makoni, Innovations and Challenges in Applied Linguistics 79). At the heart of it all is the importance of locus of enunciation and—by extension, ontology—to the development of one’s theories, and what constitutes theory (Jordão, "Trickstering Applied Linguistics").

Education policies and practices that rely on only one language as the sole medium for conducting and disseminating research are problematic and inequitable. They permit “groups controlling structures of knowledge to limit what can conceivably be observed in research, what kind of findings are seen to be plausible and therefore acceptable, and what kind of policy implications can be drawn from this knowledge” (Wallerstein, Uncertainties of Knowledge 162). English medium-only higher degree research student training policies that are put forward as intellectual arguments (and not moral ones) at most universities around the world are part of the very powerful tools for entrenching these epistemological inequities. Insistence on the conduct and reporting of research findings in monolingual mode limits the range of forms of knowledges and knowledge traditions to which research students are exposed.

A problematic concept, which has been the subject of recent academic enquiry in the context of multilingualism and language education is that of monolingual mindset. Michael Clyne ("Australia’s Language Potential"; Multilingual Australia.) popularized the notion of monolingual mindset in Australia against the backdrop of the declining use of migrant languages as a consequence of negative attitudes toward such languages by some sections of the Australian society. Most Australians, mainly those from Anglo backgrounds, are said to have a latent belief that proficiency in many languages is, in fact, an exception rather than a norm for most people. Locating it within political and public policy statements symptomatic of conservative politics in Australia, Clyne ("The Monolingual Mindset as an Impediment") says monolingual mindset is about seeing everything in terms of a single language: “This includes (a) regarding monolingualism as the norm and multilingualism as exceptional, deviant, unnecessary, dangerous or undesirable, (b) not understanding the links between skills in one language and others, and (c) reflecting such thinking in social and educational planning” (Clyne 348). While many societies have had long histories of compartmentalizing language in this way and treating certain varieties or dialects as superior to others, these attitudes have intensified since the rise of western European Enlightenment. The twin processes of colonial imperialism and Christian modernity have had the most significant influence on the spread of monolingual thinking. As Clyne elaborates further, “important decisions in
education and other public domains are [typically] made according to criteria assuming that monolingualism is the norm and that using two or more languages is exceptional, problematic or transitory” (“The Monolingual Mindset as an Impediment” 349). Mono-epistemic thinking that besets most higher degree research student training regimes is traced to these monolingual habits and practices.

Along the same vein, Ingrid Piller (in "Monolingual ways of Seeing") interrogates what underpins education policies and academic research agendas. Piller opens her analysis by positing that what we see is constrained by what we expect to see based on our beliefs and knowledge. In the context of mainstream research paradigms, she argues that English monolingualism undergirds contemporary ways of seeing what counts as valid academic research and forms of knowledges produced, which are largely mono-epistemic. With specific focus on research into multilingualism, she identifies and unpacks three aspects of English monolingual ways of seeing. The first is about perceptions of multilingualism as generic and context-free. That is, “English-monolingual ways of seeing multilingualism entail a very peculiar perspective that disguises its peculiarity as general and universalistic” (Piller 28). The two consequences of this universalizing tendency are (a) that English-monolingual ways of seeing are obscured from being recognized as particularistic; and (b) that the need to examine the specificity and locality of monolingual ways of seeing is overlooked as it remains hidden behind the façade of universal relevance. This critique resonates with lines of argument advanced by decolonial and Southern theorists discussed above.

The second monolingual way of seeing is one about the presentist view of multilingualism and the pre-occupation with immediacy that does not pay much attention to history issues. According to Piller, contemporary English-monolingual ways of seeing direct researchers’ attention to more recent societal conditions of the nineteenth and twentieth centuries while overlooking linguistic diversity that has flourished for more than 3000 years (Piller 28). Taking after John Edwards, Piller further argues that such obsession with an ahistorical and presentist view of research into multilingualism reflects “a lack of knowledge about the historically longstanding awareness of vocal multiplicities, their sources, their intertwinings and, consequently the problems of interpretation that they present” (Edwards cited in Piller 29). In short, the presentist monolingual way of seeing ignores both the longstanding philosophical traditions exploring linguistic, social and epistemological diversity; and contexts (especially Southern) where multilingualism is the normal state of being.

Piller describes the third monolingual way of seeing as being about a focus on the product of the monolingual academic text whereby material in languages other than English is rarely presented in the original. Instead, readers are denied the multilingual experience through the habit of translating from other languages into English as a way of admitting such material into the world of “valid” and “legitimate” epistemology. For this reason, Contemporary research written in English offers, by and large, a monolingual reading experience. It is not uncommon to find that data from other languages are simply presented in translation; if non-English data are presented in the original, they are always
accompanies an English translation. In the typical contemporary English-language research article, the reader can comfortably go into monolingual mode; even if other language material appears in the article, the reader, if so inclined, does not need to pay attention and can skip it to simply concentrate on the English. (Piller 30)

The ultimate consequence of all of this is legitimation of (mostly English) mono-epistemologies as the norm, hence the only valid way of knowing. Ingrid Piller’s sentiments echo those of South African critical psychologist, Desmond Painter (“The Monolingual Drone”) who introduced the notion of the “monolingual drone.” Painter uses the metaphor of “monolingual drone” as a summary term for the situation whereby researchers and educators lazily rely on the false idea that English is a global lingua franca, an innocent “link language.” In doing so, researchers and educators inadvertently contribute “to exactly that which we seek to disrupt when we critique the contemporary university’s neoliberal rhetoric of “internationalisation” and “marketable knowledge”” (Painter 1). Painter locates his characterization of English as a “monolingual drone” within broader discourses on neo-colonial relationships of knowledge production and consumption. Drawing on the example of South Africa where the majority of the population uses multiple languages, he says the preference for English-monolingualism is problematic because it reflects the hegemonic interests of an elite and not those of the majority of the population. In the domain of academic research and publication, the English “monolingual drone” is evidenced by common assumptions of those who work in predominantly English language environments. Since literature is abundantly available in English in these environments, it can be easy to describe English medium literature as “the literature (as in: an overview of the literature; a search of the literature, etc), often not pausing to reflect on the parallel existence of other, linguistically different bodies of writing and publication” (Painter 1).

This discourse on English as a self-evident academic language hides more than it reveals. The one thing it hides is that it presents itself as the ideological opposite of processes of exclusion: that in the midst of linguistic and cultural diversity, English is the mechanism of inclusion, of intercultural dialogue and understanding, of the obliteration of boundaries, and of joint and borderless activity. But as the previous body of work in critical applied linguistics has shown English is ideologically and culturally laden. The ubiquitous discourse that presents English as a “neutral” and self-evident lingua franca for global academic exchanges is deceptive and misleading. It obscures the fact that for the majority of scholars from the Southern orbit of the globe, writing in English effectively amounts to the production and reproduction of the very same colonial matrices of power and epistemological hegemonies that we are aiming to critique.

It follows, therefore, from the above that monolingual mindsets, monolingual ways of seeing and monolingual drones are the very powerful tools for entrenching epistemological inequities “precisely because they are put forward as intellectual arguments and not as moral ones, and even less as political ones” (Wallerstein 162). Consequently, the imposition of hegemonic language ideologies (albeit by
stealth) in the conduct and communication of research “permits groups controlling structures of knowledge to limit what can conceivably be observed in research, what kind of findings are seen to be plausible and therefore acceptable, and what kind of policy implications can be drawn from this knowledge” (Wallerstein 162).

**Toward a Multilingual Habitus**

Inspired by Pierre Bourdieu’s notion of linguistic habitus, Ingrid Gogolin ("The Monolingual Habitus") introduced the multilingual habitus approach that we can draw upon as a counter-hegemonic strategy for addressing problems associated with “monolingual drones,” “monolingual mindsets” and “monolingual ways of seeing.” A multilingual habitus perspective seeks to accommodate and recognize those language practices that are generally ignored, marginalized and consigned to the peripheries of educational epistemologies and pedagogies (Ndhlovu, "Ignored Lingualism"). A multilingual habitus approach is also about tapping into students’ funds of knowledge (McIntyre et al.) whereby the totality of linguistic resources, communication codes and cultures of learning are harnessed and deployed towards epistemological renewal in teaching and research training agendas.

Carol Benson in “Towards a Multilingual Habitus” identified at least five key contors and educational benefits of a multilingual habitus. First, it allows for the negotiation of language(s) of literacy and interaction among classroom participants, hence the negotiation of inchoate and seemingly contradictory funds of knowledge. Second, a multilingual habitus approach allows for the design of learning goals in terms of the quality and usefulness of competences of learners. Third, it provides opportunities for building on students’ knowledges and experiences, thus promoting a systematic and holistic approach to engaging various types or forms of knowledges. The fourth benefit is about promoting the development of metalinguistic awareness among both educators and students as an integral part of conducting research and disseminating research outcomes (Ndhlovu, "Ignored Lingualism"). Fifth, a multilingual habitus approach strongly encourages scaffolding meaning and using methods and other language types appropriate to students’ needs and experiences.

Overall, multilingual habitus looks for opportunities to complement and support existing strengths and capacities as opposed to focusing on, and staying with, the problem or concern (State of Victoria, "Strength-based Approach"). It represents “a paradigm shift—a movement away from monolingual deficit-based approaches that fail to provide sufficient information about strengths and strategies to support students’ learning and development” (State of Victoria 6). A multilingual habitus perspective draws the attention of educators and policy makers to students’ pre-existing strengths such as intellectual abilities, communication skills, language abilities, interpersonal skills, capacities, dispositions, interests and motivations. In short, a multilingual habitus is the direct opposite of a monolingual habitus in the sense that it makes the language(s) of teaching, learning and research explicit
(Benson 293) through the development of appropriate methods and materials that reflect the multilingual realities of students and the communities to which they belong.

Proposed Model for HDR Student Training

We have thus far tried to show that the spectrum of global knowledge traditions is vast, diverse and expansive. A crucial point we learn from the previous body of literature and frameworks discussed in preceding sections is about the uncertainty of knowledge and knowledge production processes in different contextual and cultural conditions (Wallerstein). This uncertainty of knowledge emanates from the fact that “the social world is intrinsically an uncertain area” (Wallerstein 43). This is to say “While we continue to be required to search for regularities of processes within systems, the systems themselves are constantly moving from equilibrium, and therefore at some point will be transformed, such that the regularities we have observed no longer hold even as an approximation of reality” (Wallerstein 43). Therefore, because there are multiple paths for theory-building around the world, we need to face the difficulty of theorizing in globally inclusive ways if we are to transcend the pervasive effects and fundamentalist claims of hegemonic discourses (Comaroff and Comaroff). We need to start with our feet on the ground; from a strong awareness that the archaeology of knowledge (Foucault, *The Archaeology of Knowledge*) and knowledge production is more complex and less predictable to be sufficiently captured through the frames of only one tradition of knowing. For example, Pennycook and Makoni (*Innovations and Challenges in Applied Linguistics*) see promise by invoking Ubuntu-Neplanta as a way of foregrounding the ontological conditions of language. If in a Southern voice it is possible to think otherwise, it is only made possible through the speaking other. Language here is not a precondition of knowledge, rather the presence of difference is a precondition of the need to speak, to bring one and the other into being. In language “an unstable inbetweenness” appears “rather than firmly bounded entities” (Pennycook and Makoni 109). The epistemological traditions we follow shape the nature of our research questions, what we look for or overlook in our data sets and, ultimately our answers to such questions. For this reason, it is imperative that we draw on a wider and far more sophisticated battery of explanatory paradigms (Ndhlovu, "South Africa’s Social Transformation Policies"). This essentially means following a methodological road map filled with uncertainties in order to ascertain plausible interpretations of uncertain social realities (Wallerstein).

In this vein, indigenous researchers such as Begele Chilisa in *Indigenous Research Methodologies* and Linda Tuhiwai Smith in *Decolonizing Methodologies* have advised that we need new ways of knowing and discovering, and new ways to think about research. The aim is to demonstrate possibilities of re-imagining research as an activity that can be pursued outside the narrow box of the mainstream scientific experimental design (Smith). This is about the desubjugation of diverse systems of thought (Foucault, *The Will to Knowledge*); a call for an explicit integration of praxis, theory, action and reflection in ways that
 provoke rethinking the roles of knowledge and knowledge production in social transformation (Ndhlovu, "South Africa’s Social Transformation Policies").

In the remaining paragraphs of this section, we pull together the different strands of conceptual ideas and discourse systems (ecology of knowledges and multilingual habitus) discussed above and use them to chart an alternative approach to HDR student training. We start by reiterating the foundational goals of education, which include those of meeting the learning needs and aspirations of individuals; addressing the development needs of society; contributing to the creation, sharing and evaluation of knowledge; and contributing towards the development of enlightened, responsible and constructively critical citizens (Department of Education).

With these goals of education in mind, we propose a model for higher degree research student training that we hope will help inform policies on how to meet the challenges that arise and the opportunities that flow from our present interconnected world. See Figure 1 below.

**Figure 1: Ecology of Knowledges Model for HDR Student Training**
What we present in Figure 1 is a model that seeks to put epistemological pluralism as the linchpin for training higher degree research students. By epistemological pluralism and renewal, we are referring to the deliberate and systematic structural reorganization of the world of knowledge in ways that tap into and reflect diverse global traditions of knowing. HDR student training under this model would entail ensuring students engage literature, epistemologies and other resources that appear in languages other than English. The benefit of such an approach is that it exposes students to multiple and varied forms of knowledge, which ideally puts them in the best possible position to enter into conversations with a much broader and more diverse network of knowledge societies from multiple linguistic and cultural backgrounds.

As Pennycook and Makoni (see Innovations and Challenges in Applied Linguistics) point out, the integration of diverse multilingual communicative repertoires would enable us seriously consider the different ways of understanding language and knowledge as they relate to the experiences and ontologies of different peoples and communities. At the heart of it all is the imperative to decolonize both the curriculum and “a set of deep-seated language ideologies” (Pennycook and Makoni 42) that currently mediate mainstream regimes of knowledge production and dissemination. It is here that notions of ecology of knowledges, multilingual habitus and ontologies of incompleteness that form the conceptual architecture of the model we propose are quite relevant.

All three notions are the underpinning pillars of the overall framework. They highlight the promises and affordances of diverse epistemologies and linguistic and cultural resources in nurturing research students’ creative abilities. The three notions also draw attention to the importance of foregrounding dialogue between the local and the global in our research agendas as a way to expose students to competing types of knowledges and voices that speak from multiple loci of enunciation. While local contextual particularities and cultural specificities must be key in identifying research problems and in finding solutions to them, this should not be done in isolation from the global context because the two are interconnected and are incomplete without each other. In other words, the local is located in the global and, similarly the global, cannot be outside of the local. The two must be brought together into informed conversations that recognize and value the messiness and complexity of encounters and relationships while simultaneously foreclosing endemic obsession with binaries, dichotomies and dualisms in knowledge production.

Here, Francis Nyamjoh’s (Drinking from the Cosmic Gourd) clever idea on convivial scholarship is informative. Through the notion of conviviality, Nyamnjoh ("Incompleteness") suggests a methodological orientation in which interconnections, interrelationships, interdependencies, collaboration, and coproduction, as well as the recognition of diversity, tolerance, trust, and equality—among other forms of sociality—take center stage in our research agendas. This is a type of scholarship, which undergirds the deep power of collective imagination and the importance of interconnections and nuanced complexities. Convivial scholarship is, ipso facto, “a scholarship that questions assumptions of a
priori locations and bounded ideas of power and all other forms of relationships that shape and are shaped by the socio-cultural, political and economic circumstances of social actors” (Nyamnjoh, *Drinking from the Cosmic Gourd* 5).

An envisaged outcome of the proposed approach to HDR training is that of enhancing student success and impacts of their work among both academic and non-academic communities. Additionally, we hope that the application of this model to policies on HDR student training and development would contribute to the academic growth of candidates and achievement of their institutions’ goals of nurturing a cohort of the next generation of academic and research leaders. This would, in turn contribute toward achievement of institutional and national goals of cognitive justice and social justice in education and training. Overall, this model joins the emerging and quite contemporary body of scholarship from the Global South that calls for pluralization of knowledge production processes in globally inclusive ways that seriously consider the value of both local and global contextual particularities and the multi-dimensional character of the research problem. The model posits that higher degree research students and other researchers from diverse linguistic and cultural backgrounds need ways of negotiating difference in order to converge on practices of mutual interest rather than negotiating codes. Such strategies of managing and accommodating linguistic difference without necessarily resorting to standard language ideological approaches teach us that the focus of attention should be on collaborative and convivial scholarship through acknowledging that no single body of knowledge can be without the others.

**Conclusion**

This paper has addressed a number of conceptual and pedagogical questions in the context of higher degree research student training to chart alternative trajectories that accord with realities of our present globalizing and interconnected world. How might ecology of ways of knowing help develop the capabilities of higher degree research students to connect with a wider network of global knowledge societies in this age of an interconnected world? What promises do epistemological pluralism and multilingual policy frameworks that are translatable across a range of cultural contexts hold for increasing the impact of higher degree research projects among both academic and non-academic communities? Arguably, these questions cannot be fully answered in the abstract. Rather, they require us to deploy a combination of innovative theorization, commitment to empirical evidence and methodological rigor. This paper is a first attempt that opens a fruitful pathway for future empirical projects that will answer these complex questions in more concrete ways through practical application of the model in specific higher education settings. For this reason, the responses provided in the paper are not intended to be doctrinaire – some are tentative; others partial. The paper is essentially an invitation to all of us – academics, educators, HDR program administrators, research students, policy makers, and all – to engage in dialectical conversations about how best to re-design research training programs such that they align
with the ongoing anti-colonial, anti-foundational and transformative agenda currently being pushed by scholars speaking from decolonial and Southern perspectives.
Notes


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