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Critiques of Western Modernity in Environmental and Sustainability Education and Global Citizenship Education: a Research Review

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Critiques of Western Modernity in ESE and GCE

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Abstract

In the current context of multiple global crises, Education for Sustainable Development and Global Citizenship Education (GCE) are put at the centre of the United Nations' Sustainable Development Goals. Understanding with Mignolo (2011) that the global challenges we presently face are rooted in the dark side of Western modernity (coloniality), this research aimed to explore the ways in which Environmental and Sustainability Education (ESE) and GCE target, critique, and possibly *delink* from the modern/colonial imaginary framing them. With an emphasis on secondary education, the review identified 45 journal articles (23 theoretical and 21 empirical) that critically engaged with Western modernity; and mapped them onto Andreotti and colleagues' (2015) social cartography *General Responses to Modernity's Violence*. Both theoretical and empirical literature showed that ESE and GCE are still framed by Western narratives that marginalise, and/or assimilate non-Western knowledges and ontologies; and identify a range of responses that span across ontological, epistemological and methodological considerations. The present report takes stock of critiques and responses to Western modernity in ESE and GCE, discussing the possibilities and limitations afforded by their place of enunciation, and it makes suggestions for future research and practice in the fields.

Keywords: 'environmental and sustainability education', 'global citizenship education', 'postcolonial theory', 'decolonial theory', 'non-western perspectives', 'Sustainable Development Goals', 'Goal 4.7' 'education for sustainable development', 'critical global citizenship education'.

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Introduction

The last decade has been marked by a continuous struggle with global crises, ranging from war, to poverty, environmental catastrophes, and now the Covid-19 pandemic. With a promise to foster a more prosperous future for us all, the United Nations (UN) developed Agenda 2030, which defines 17 Sustainable Development Goals (SDGs). Education features prominently in this agenda in goal 4, and target 4.7 sets that by 2030, we are to ensure

> all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development. (UNESCO, 2016, p. 287).

Target 4.7 is seen as crucial in achieving all SDGs (UNESCO, 2016; Marron & Naughton, 2019) because of the way it promotes 'the social, humanistic and moral purposes of education' (UNESCO, 2016, p. 288), and offers a 'potentially transformative way to inspire inclusive, value and skill-based action, designed to promote a sustainable world' (Marron & Naughton, 2019, p. 4). While there are several fields of education listed within this target, two of the main foci have been Global Citizenship Education (GCE) and Education for Sustainable Development (ESD), which the UNESCO (2019, p. 3) has stated 'are at the core of SDG 4.7'.

The high status given to ESD and GCE in the SDGs has triggered theoretical and empirical responses in the fields of Environmental and Sustainability Education (ESE) and Global Citizenship Education, visible in the emerging special issues in academic journals (e.g. Aznar-Díaz et al., 2020; Bentall, 2020), edited books (e.g. Corcoran, Weakland & Wals, 2017; Bourn, 2020), and an ever growing body of literature focusing on ESE and GCE policy (e.g. Van Poeck, Lysgaard & Reid, 2018; Raposo et al., 2020), curriculum (e.g. Truong-White & McLean, 2015; Swanson & Pashby, 2016), class resources (e.g. Mikander, 2016) and teaching approaches (e.g. Walshe, 2017; Leite, 2021). Theoretical discussions have also responded to the global agenda by exploring approaches that might promote alternative futures. Looking for these approaches has led to a proliferation of various typologies of GCE (see Pashby et al., 2020), and a concern with 'new' ontologies, such as Posthumanism and New Materialism, in ESE (see Rodrigues et al., 2020).

With a growing body of literature looking into education for an alternative future, this review pays particular attention to work in ESE and GCE that is also concerned with how we got here. In line with Stein and colleagues (2017), this report maintains that the human and environmental catastrophes and injustices of our time are rooted in the ways of being, knowing and doing constructed through, and framed by, Western modernity. Following, Walter Mignolo's (e.g. 2011, 2018) understanding of modernity as a shiny narrative of technology and progress, built on a range systems of oppression (coloniality), Sund and Pashby (2018) argue that any transformative potential offered by the UN's global agenda is realisable only if education explicitly takes up the modern/colonial imaginary within which it operates[1]. As such, this review focuses on literature in ESE and GCE that take up critiques of Western modernity.

Understanding GCE and ESE as fluid fields of research and practice, this review aims to elicit their shared commitment to critically target and challenge the modern imaginary framing teaching and learning about global issues, in secondary education. The review specifically aims to identify, collate and map critiques of modernity emerging from ESE and GCE. It draws on Andreotti and colleagues' (2015) social cartography of *General Responses to Modernity's Violence* as a heuristic to guide the mapping process, and the identification of commonalities, tensions and possible absences in discussions across the fields. The review, therefore, contributes to the current body of knowledge by taking stock of critiques of Western modernity in ESE and GCE, and discussing the possibilities and limitations offered by their different places of enunciation.

There is a wide range of terms and approaches used in the fields of GCE and ESE, and so the terminology used in this report requires some clarification. The present research review is situated within a critical GCE tradition, concerned with identifying and challenging modern/colonial narratives in education about global issues (e.g. Andreotti, 2006; Pashby, 2014), and it refers to GCE to also mean other terms such as Global Education (GE) or Development Education (DE), often used interchangeably in the field (see e.g. Bourn, 2020). There are also a variety of traditions related to ESE, such as ESD, Environmental Education (EE), Sustainability Education, and Place-Based Education. Positioning this work within critical conversations

[1] modernity or Western modernity are used in this report as shorthand term for Walter Mignolo's (2011) conceptual dyad of modernity/coloniality

across the fields, the review will refer to Environmental and Sustainability Education (ESE) and GCE as umbrella terms, whilst also honouring the different traditions, by adopting the terms used by the authors when discussing specific articles.

This research report is organised as follows: the next section provides a theoretical framework for the research, drawing on Walter Mignolo's typology of critiques of Western modernity (Eurocentric, dewesternisation and coloniality-based), and identifies, defines and justifies the approaches to ESE and GCE the literature review focused on; the following section introduces the methodological approach, and summarises and discusses the research review process; next the selected theoretical, and then empirical, papers are summarised and mapped onto Andreotti and colleagues (2015) social cartography; finally, the conclusion synthesises key findings from the review and makes recommendations for further research.

Critiques of Western modernity in ESE and GCE

The current global pandemic has certainly brought home the crises modernity has produced, and the devastation it is perpetuating, whilst highlighting the inadequacy of our 'modern solutions' to address these problems (Santos, 2012, p. 42). Hence, the present research is concerned with theoretical approaches to ESE and GCE that take up modernity and aim to challenge it. Mignolo (2011) identifies three key critiques to Western modernity: Eurocentric (informed traditionally by Marxism and Poststructuralism and, more recently, by Posthumanism and New Materialism), dewesternisation (informed by theories and epistemologies emerging from non-Western geopolitical contexts) and coloniality-based (informed by post and decolonial theory).

Eurocentric critiques of Western modernity in both ESE and GCE have emphasised radical (e.g. Shultz, 2009; Peters, 2017), democratic (e.g. Camicia & Franklin, 2011; Van Poeck and Östman, 2018) approaches, focused on politicising teaching and learning (Van Poeck & Östman, 2018) through the promotion of deliberative and plural engagements geared toward social action (e.g. Shultz, 2009; Rudsberg & Öhman, 2010). More recently, Eurocentric critiques in ESE have started to explore alternatives to the anthropocentric and dualist Western ontology (see Rodrigues et al., 2020). These approaches to ESE and GCE tend to focus on challenging the status quo through engagements with Western liberal institutions, knowledge (see Pashby et al., 2020) and universalised conceptualisations of the human (see

Sund & Pashby, 2020). This Mignolo (2011, 2018) argues might provide opportunities to extend Western modernity, but is unlikely to create the conditions necessary to *delink* from it. Looking for approaches to ESE and GCE that focus more strongly on dismantling the Western modern imaginary, this review has not included 'Eurocentric critiques' in the literature search process.

Emerging from other geo-political contexts, critiques of modernity focused on dewesternisation are concerned with challenging Western control over knowledge and subjectivities (Mignolo, 2011) and offer possibilities for being otherwise. Escobar (2020), for example, highlights the possibilities opened up by Buddhist philosophy, which is built on the principle of interdependent existence and absence of the "self", and therefore challenges Western ontology, based on individualism and separability. Critiques of modernity based on coloniality are informed by post and decolonial theory. Postcolonial theory is concerned with tracing issues of the present to colonial legacies (Bhabha, 1994), often placed securely in the past (Andreotti, 2006); and challenging Western narratives that construct the *Other* through hierarchical binaries of civilised/savage, developed/developing (Said, 1978), and justify the reproduction of colonial systems of power and subjugation (Ghandi, 1998). Also based on coloniality, decolonial critiques of modernity are concerned with targeting the frame of modernity/coloniality, which is sustained through control over knowledge production. Decolonial scholars aim to identify and address the ways in which Western modernity 'has worked and continues to work to negate, disavow, distort and deny knowledges, subjectivities, world senses, and life visions' (Mignolo & Walsh, 2018, p. 4), in order to *delink* from and *re-exist* beyond it (Mignolo & Walsh, 2018).

Importantly, there is a wide range of perspectives that are often referred to as non-Western, which can lead to a harmful essentialisation of the term, dissolving the wide range of cultures, philosophies and contexts from where these perspectives emerge (see e.g. Jackson, 2017; Culp, 2020). This review follows Mignolo's (2011) categorisation, whilst also maintaining the specificity of theories emerging from the literature. Similarly, and acknowledging the distinct histories and projects of both decolonial and postcolonial theories (see e.g., Mignolo, 2011; Bhambra, 2014), this research brings the two together not to conflate them, but to explore the potential of their intersections in critiques of modernity that target coloniality. Concerned with identifying and challenging Western ontology and epistemology, 'both projects

strive to unveil colonial strategies promoting the reproduction of subjects whose aims and goals are to control and possess' (Mignolo, 2011a, p. xxvi).

Drawing on Mignolo's (2011) typology, the review will explore how theoretical and empirical work in ESE and GCE, informed by non-Western, postcolonial and decolonial approaches takes up and responds to the harmful consequences of Western modernity (Andreotti et al., 2015).

Methodology

The present research used a social cartography framework (Paulston, 1999). Social cartographies are performative devices of analysis, which provide the tool to map differences and commonalities within and between fields of research (Paulston, 1999). In the case of this review, it has allowed the mapping of the similar and different ways in which GCE and ESE scholarship has taken up Western modernity in its search for alternative futures. Going beyond mapping, social cartographies also prompt discussions around the conflations, tensions and absences across perspectives (see e.g. Pashby et al., 2020). Importantly, this approach aims to promote dialogue among stakeholders in the fields; so, rather than providing an objective final mapping of conversations taking place in ESE and GCE, the social cartographies presented in this report are provisional, and open to contestation, expansion and continuous revision (Paulston, 1999).

The study approached its mapping by adopting a social cartography developed by Andreotti and colleagues (2015), and recently used by Suša (2019) in his mapping of GCE initiatives in response to SDG 4.7. In line with critiques to Western modernity, Andreotti and colleagues (2015) identify three places of enunciation in responses to modernity's harmful consequences: Soft-Reform, Radical-Reform, and Beyond-Reform. Soft-Reform marks a space of conversations where responses to problems caused by modernity are given through a methodological approach, based on changing the way we do things, to make the system more inclusive. Difference in this space is acknowledged, but the power relations and social conflicts at its core are overlooked. Radical-Reform approaches, on the other hand, address the historical unequal structures that constitute the system, and the epistemological dominance that supports them. Understanding modernity's violence as systemic, the aim becomes to challenge and re-structure the system. Finally, conversations taking place within the Beyond-Reform Space acknowledge modernity is not restorable and highlight the dominance of Western modern ontology. For approaches in this space, the response to

modernity's violence is based on learning, whilst disinvesting from the modern/colonial system, and is focused on existing *otherwise*. Andreotti and colleagues made distinctions within this reform space that supported a more nuanced discussion during the mapping process. The authors define a 'system walk out' approach, where alternatives to modernity are looked for outside the system, although there is still a search for solutions with guarantees; a 'system hacking' approach, where spaces are opened for education about the violences embedded in modernity (coloniality); and a 'hospicing' response, which conceives change within the current system as impossible and focuses on learning from the its decline, offering support and clearing the space for a new emerging reality (p. 27–28).

Andreotti and colleagues' (2015) cartography has provided a heuristic for this research to map the critiques of Western modernity within the fields of ESE and GCE, through making visible the different places of enunciation from where these discussions emerge. Offering a visual tool to map the literature, it also allows for a discussion around differences, commonalities and possible absences within each space. Importantly, the authors found that a pedagogical use of their social cartography led to different readings. My reading aligns with the third narrative uncovered by Andreotti and colleagues (2015), which rather than seeing the different spaces in the cartography as moving linearly from 'worse' to 'better' responses, considers that

> we all inhabit the four spaces at once, as we have to address incommensurable demands of a system in crisis. This reading emphasises the frustrations, contradictions and incoherences that emerge when one has to identify and address multiple needs and sensitivities of audiences in different spaces as we communicate socially or intervene pedagogically. (Andreotti et al., 2015, p. 29–30)

Paulston (1999) defines five steps for developing social cartographies: 1) choosing the issue of focus; 2) selecting a substantial number of texts on that issue; 3) identifying the position of each text; 4) identifying the commonalities between the texts and their place on the map; 5) putting the map to test with the relevant communities and re-map after discussions.

Choosing the Issue of Focus

This research was commissioned by a Swedish Research Council funded project, looking at ethical global issues pedagogy in secondary schools. The project specifically required a review of research that illustrated the inter-

sections of ESE and GCE within post and decolonial theoretical frameworks, or, as Mignolo (2011) puts it, coloniality-based critiques of Western modernity. Drawing on Mignolo's (2011) typology discussed in the previous section, the research's focus was extended to also include dewesternisation work in ESE and GCE, in order to provide a wider picture of the efforts being made in both fields to target and delink from the modern/colonial imaginary framing them. As such, the issue of focus became dewesternisation and coloniality-based critiques of Western modernity in ESE and GCE, in secondary education contexts.

Selecting Texts on that Issue

Articles were identified through a university library search engine, and then directly through key journals that were highlighted by experts in the field, working on the project that funded this research. These were: Environmental Education Research; Journal of Environmental Education; Canadian Journal of Environmental Education; Australian Journal of Envi-ronmental Education; Southern African Journal of Environmental Educa-tion; Brazilian Journal of Environmental Education Research; Sustainability; Policy&Practice: A Development Education Review; Globalisation, Societies and Education; Sinergias.

Responding to discussions around the over-representation of the English language in the fields (e.g. Sharma, 2020; ANGEL, 2020), the search was conducted not only in English but also in Portuguese, which are the two languages available to me at a proficient level. It was carried out through a phrase search method that targeted key terms in the title, abstract and keywords sections of the papers.

The key words were initially selected through my current knowledge of the field and the different terminology used to refer to GCE and ESE, as well as the key theoretical approaches I identified in my theoretical framework. Consequently, combi-nations included terms such as "postcolonial", "pós-colonial", "decoloni-al" or "non-Western" plus either one of the terms "global citizenship education", "educação para a cidadania global", "environmental education", "Educação ambiental", "environmental and sustainability education", "education for sustainable development", "ecopedagogy", or "land education". Finally, during both stages, the search also used either "high school", "ensino secundário", "secondary school" or

"secondary education" in the phrase search combinations. Secondary education was considered to include students aged between 11–18 years old. Some of the literature was also found cited in other articles.

The amount of literature based on coloniality or dewesternisation and with a focus on secondary education was very limited. As such, the criteria was opened to include theoretical papers that provided a general discussion of GCE and/or ESE based on either one of Mignolo's (2011) critiques of Western modernity. However, articles with a clear primary (e.g., Nxumalo & Cedillo, 2017) or post-secondary education (e.g., Stein, 2019) focus were still excluded. Specific empirical articles that were based in secondary school contexts and took a clear critical approach to GCE and/or ESE were also included, in consultation with two experts in the field working on the project that funded the research.

Looking to capture theoretical and empirical work published in academic journals in response to SDG 4.7, the initial year of publication set for the search was 2015. However, during this stage, a special issue on Land Education that provides an important contribution to critiques of Western modernity from settler colonial contexts, emerged. This special issue was from 2014, so a second round of literature search was undertaken to also include other articles from this year.

The review completed its search phase on October 2020, and after reading the abstract for each article in relation to the principles defined above, one article related to policy (Lotz-Sisitka, 2016) was excluded, for not responding to the practice focus of the larger project. In the end, a total of 45 papers were selected for review: 24 theoretical and 21 empirical.

Identifying the position of each text, commonalities, divergences, and place on the map

To identify the position of each text, I read each article, summarised it and took notes onto a working table. I then read each article a second time and clarified the summary, when needed. The position of each text was based on my interpretation of the assumptions informing the authors' critiques and responses to Western modernity. Specifically, I focused on how the problem and consequent response was articulated in each paper, and then in relation to Andreotti and colleague's (2015) responses to modernity's harmful consequences: Soft, Radical and Beyond Reform.

After identifying the position of each text in relation to Andreotti and colleagues' (2015) heuristic, I compared and contrasted the sources against each other. The common denominator for the papers' positioning on the

map was based on Andreotti and colleagues' liminal cartography lines which distinguish between critiques of Western modernity that acknowledge, or not, epistemological and/or ontological dominance in their formulation of the problem. Then, I focused on the types of questions raised and recommendations put forward by each article, specifically if they were of a methodological, epistemological and/or ontological nature. This second step allowed for a distinction across the literature within each of the reform spaces (Soft, Radical and Beyond), and the emergence of two interspaces: Radical-Beyond Reform (theoretical papers) and Soft-Radical Reform (empirical papers), as well as detailed distinctions within them.

Initially, the literature was mapped onto two different social cartographies to avoid overly populated maps. As such, one map displayed the theoretical literature (figure 2), and the other the empirical research (figure 4). This separation ended up showcasing an interesting distinction between the theoretical and empirical literature, which is discussed later in this report.

Putting the Map to Test and Re-mapping

The initial mapping was presented at the funding project's meeting, in December 2021. Although there seemed to be agreement on how the mapping was done, the feedback suggested that mapping the articles in itself did not offer much clarity on the conversations happening in and across the fields. As such, a second mapping was included – one that provided an overview of the key themes emerging from the summaries of the literature reviewed. Responding to this feedback led to the development of two additional social cartographies that mapped the key themes emerging from the theoretical (figure 1), and the empirical articles (figure 3). I identified the key themes by revisiting the summary of findings in each section (theoretical and empirical) and synthesising the key ideas into short phrases that articulated them. I then mapped these onto Andreotti and colleagues' (2015) social cartography.

Although the revised cartographies are captured in this report, they do not represent the end of the conversation initiated here. The mapping will continue to be tested and re-worked through conversations with different stakeholders across the field. For example, the cartography will be engaged with again with a group of academic developers at the International Baccalaureate, who have been engaging with post and decolonial approaches to curriculum design, in July 2021.

Limitations

There are some important limitations and challenges to the selection and mapping exercises carried out in this research. First, I am a white woman working in Europe, mapping literature emerging from different contexts, knowing the act of mapping has historically been an exercise of power aimed at expanding and justifying Western dominance. To be sure, all of the papers included in this review were considered key in both fields, either for their critiques of Western modernity, or for their critical approaches to research in ESE and GCE. Additionally, as intended by the authors of the social cartography used in this research, the aim has been pedagogical, rather than normative. Still, the heavily socialisation in Euro-centric onto-epistemology, might have meant I have missed important nuances in conversations taking place in non-Western contexts, or/and ended up re-centring Western thinking in the review.

The field of ESE is over-represented, with 25 articles selected, compared to 16 from GCE and five that speak to both fields. This is arguably the result of a wide-range of fields that come under the umbrella of ESE as well as a wider variety of academic journals dedicated to them, meaning finding sources from ESE was easier. However, this is not a piece of comparative research, and the fact that there are more papers in the field of ESE should not compromise the overall aim. In fact, as the review aimed to bring together conversations in GCE and ESE, the report does not distinguish between the two fields in the mapping exercise. This is also the case with the presentation and discussion of findings, where the articles are presented and discussed according to their position on the cartography. Furthermore, the empirical literature comprises of a more balanced sample, with 11 papers from GCE, seven from ESE and three that speak to both fields. Nevertheless, there are limitations to the selection process with regards to the key-terms chosen to input on the search engine. Having included other key terms (such as "modernity", "empire", "southern theory", "indigenous perspectives") during the literature search might have led to a higher volume of sources found, and a stronger presence of non-Western voices in the review.

Finally, although the review was systematic, it is worth recognising there is a possibility that articles were missed in the process, due to human error.

With regards to the use of Andreotti and colleagues' (2015) social cartography, the mapping exercise was helpful in providing a visual illustration of key concerns in the fields and provided a point of convergence for GCE and ESE studies. It also provided an understanding of the place of enunciation from where critiques of Western modernity in the field emerge, and it

showed spaces of convergence as well as nuanced distinctions across the literature. Adding the map of key themes was also helpful in illustrating conversations taking place in the fields. However, a challenge and limitation of this review is the wide range of types of research, contexts and aims uncaptured by the mapping and not always explicitly treated in the research review process itself.

Findings – Theoretical Papers

A total of 24 theoretical papers were selected for the review. These emerged largely from within the field of Environmental and Sustainability Education (ESE), with only five papers focusing on Global Citizenship Education (GCE) and two addressing both ESE and GCE. No papers were mapped to the Soft-Reform Space, and there were only two that mapped onto the Radical-Reform Space. The majority of the papers (18) mapped onto an interspace between the Radical and the Beyond-Reform spaces. All of the literature that mapped onto this interspace acknowledged Western onto-epistemological dominance, but responded to it in largely two different ways: either by suggesting ways to reframe and reform processes of knowledge production in the fields, or by signalling to alternative ways of being and knowing. This difference was acknowledged by dividing the interspace into two sub-sections: Radical-Beyond-Epistemological and Radical-Beyond-Ontological. Ten papers mapped onto the former, and eight onto the latter. Finally, five papers mapped onto the Beyond-Reform Space for the way they explicitly engaged with 'other' ontological frames, or for the strong theoretical consideration of possibilities for delinking from the modern/colonial frame. Andreotti and colleagues' (2015) distinctions within their social cartography offered possibilities for a more nuanced discussion in this space. Two papers appeared to be in line with a 'system walkout' (and walk back in) approach, one provided a 'systems hacking' response, and two made a case for the need to 'hospice' the system. In this section, I introduce each paper mapped to the different spaces, interspaces and sub-sections of Andreotti and colleagues' (2015) cartography (please see figure 1).

Radical-Reform Space

Two papers mapped onto the Radical-Reform Space: Kumalo (2017) and Sutoris (2019). Both authors are concerned with the field of ESE, although their work emerges from two different geo-political contexts: South Africa (Kumalo) and the United Kingdom (Sutoris).

Kumalo (2017) engages with the concept of development in Education for Sustainable Development (ESD), through an exploration of epistemic justice and sustainability, framed by an African ethics. Drawing on the work of Rámon Grosfoguel, he argues the West has ensured its dominance through the creation of a sub-zero point, positioning itself as the 'God-Knower'. This allowed Western countries to universalise and impose narratives about development that silence Indigenous knowledges and defines development as economic growth. Additionally, the tension between sustainability and economic growth is denied in Western perspectives. Consequently, the author argues for the use of Amartya Sen's capabilities approach as a way to expand the Western conceptualisation of development, and argues the three key capabilities (political freedom, social opportunities, and protective security) should be positioned at the centre of ESD. He also argues the capabilities ought to be rooted in an African ethical framework that is focused on a responsibility and commitment to recognise the living, the living-dead, and to leaving the land as we found it. Kumalo considers implications of this theorisation of development for ESD teaching, recommending interactive teaching and learning models. The author also gives the example of The Eco-Schools programme as an effective one, due to its cross-curricular approach, and practical and situated learning. He ends by acknowledging the expansion of development in economic terms to a Human Development approach does not evade the Western hegemony, but allows for more room in discussing the concept.

Understanding ESE within neoliberal education systems as 'part of the problem rather than the solution' (p. 601), Sutoris (2019) develops a framework for ESE based on three interrelated elements: historical responsibility, drawing on the work of Paul Ricoeur; action, as conceptualised by Hannah Arendt; and the postcolonial condition. Drawing on the work of Hannah Arendt, the author argues for an emphasis on collective and plural deliberation that leads to individual political action. Such action should follow a historical analysis of the consequences of modernity's project to the present, developing students' sense of debt to future generations. However, Sutoris also highlights how this historical responsibility becomes framed by cultural, political and economic discourses in a way that defines what alternatives are possible to imagine. Considering that we do not all have the same history of harming the environment, Sutoris raises questions about whose responsibility it is to pay the debt. Drawing on the work of Gayatry Spivak, the author suggests these questions can only be answered by a critical anal-

ysis of who is driving the discussions. Critiquing mainstream understandings of development and sustainability framed through the dominant culture, the author also highlights there is a proactiveness in the way local contexts make sense of, implement and contest ESE. Consequently, he recommends ethnography as a research approach to ESE in postcolonial contexts to develop contextual under-standings of ESE and political action.

Radical-Beyond Interspace

Radical-Beyond-Epistemological

Ten papers, emerging from a variety of contexts (e.g. USA, South Africa, Brazil and Northern Europe) mapped onto the Radical-Beyond-Epistemological sub-section. Eight of them emerge from the field of ESE (Calderon, 2014; La Paperson, 2014; McCoy, 2014; Kayira, 2015; Ngcoza, 2019; O'Donoghue et al., 2019; Pesanayi, O'Donoghue & Shava, 2019; Pelacani et al., 2020) and two of them speak to both GCE and ESE (Sharma, 2020; Sund & Pashby, 2020).

Calderon (2014) develops a theoretical framework for Land Education, building on a critique of place-based approaches. The author argues that although place-based approaches centre local communities in teaching and learning, they may fall short of addressing the relation between place and settler colonialism. Calderon, thus, calls for a Land Education approach to Environmental Education (EE) that starts by engaging with settler colonial processes of dispossession and knowledge destruction, acknowledging the key role of education in these processes. She provides a discussion of territorialism as key in addressing settler colonialism, using examples of social studies textbooks from the USA. Calderon shows the textbooks are constructed through a narrative of territoriality that reinforces settler colonialism and exploitative used of land. This is done through narratives of settler nationalism (identifying Indigenous peoples as immigrants and, therefore unentitled to the land), and white supremacy (creation of a narrative of European superiority), justifying Indigenous displacement as necessary to make room for more effective ways to use the land. Calderon highlights the lack of Indigenous perspectives in historical accounts of settler colonialism and argues that, without a strong Land Education framework, Indigenous knowledges will continue to be marginalised or only superficially engaged with. However, the author also contends that both Western and non-Western knowledges can be helpful tools in the process of decolonisation, as long as environmental educators and students rethink their relations to Land and

address questions of sustainability in both ecological and cultural dimensions.

La Paperson (2014) puts forward a ghetto Land pedagogy that critically challenges settler colonialism and settler forms of environmentalism. The author takes a decolonial approach to cartography as a form of Land Education, and emphasises Land as being at the core of colonial categorisation of peoples: White people who are entitled to claim land and freedom from any boarders, Indigenous people whose claims to land must disappear, and Black people who must be kept landless. It is 'at this intersection between Indigenous displacement and Black dislocation' (p. 116) that ghetto colonialism emerges. La Paperson discusses three frameworks of social justice provided by environmental education that restrict its de-colonial potential and re-centre settler colonialism:

- environmental racism (focused on deficit analysis that ends up reducing ghettos to places of pain, in need of salvation);
- the green framework (offers green technology solutions to poverty and urban issues, in a mission to de-ghettify urban areas);
- the place-based framework (delivered through an inclusive, multicultural approach to the curriculum, that ends up (re)displacing Indigenous people and re-denying their relations to Land).

La Paperson laments the silence of EE on the appropriation and negation of Indigenous ontological and epistemological relations to Land by settler colonialism. The author then proposes a critical social cartography approach to EE that takes a historical approach, uprooting colonial settlements, and accounting for 'the when of land, not the just where of place' (p. 115). Such an approach provides resistance to mapping and sheds light on possible paths for decolonisation.

McCoy (2014) carried out a historical approach to Land Education, in order to show its potential for decolonial approaches to EE. The author provides a Land history of the colonial settlement in Jamestown, Virginia (USA), discussing the triad of settlers, Indigenous peoples, and slaves. The author draws on Karen Barad's concept of intra-activity to show both the discursive (e.g. that created indigenous people as savage to justify and legitimise violence) and material (e.g. resources such as maps and cartographies) mechanisms involved in the creation of this colonial triad. Through a Land Education, the author leads us from the emergence of corn and tobacco in the region, the appropriation of resources and exploitation of Land by settler colonisers and parallel marginalisation and displacement of Indigenous peoples, to the arrival of captured and enslaved people from Africa to do

the colonisers' work of exploiting the land. The author concludes 'it was Indigenous peoples' jobs to disappear, the African slaves' job to work the land, and the settler's entitlement to reap the profits and gain control over the land and people' (p. 90). The author argues this triad is built on 'Manifest Destiny', meaning the 'cover story' that legitimised the violence and harm caused by settler colonialism, through the creation of a narrative about White Europeans destined to take the land and show 'lesser humans' how to use it for profit. He ends by highlighting settler land histories such as this are the legacies of development discourses that inform EE practices today.

Kayira (2015) analyses the potential of postcolonial approaches in challenging the dominance of Western epistemology, and opening up spaces for African traditions such as Ubuntu/uMunthu, in EE. Reviewing the literature emerging from South Africa, Kayira finds that research has focused on the implementation of Western-centred EE initiatives, finding it marginalises Indigenous knowledges and alienates teachers and students from the curriculum. The research also shows that when Indigenous knowledges are used, they are romanticised and objectified, hindering a meaningful engagement. Importantly, many of the studies reviewed by Kayira also identify forms of counter-hegemonic practice in educational spaces and the curriculum. The author concludes by showing the potential for postcolonial theory in countering Western hegemony, focusing specifically on Ubuntu (as a way of being in the world that is based on a belief in totality, relationality and community belonging) and Homi Bhabha's concept of *third space* (a way to construct knowledge, based on dialogue between Western and indigenous perspectives, focused on collaboration, conflictual discussions and reflections).

Building on the possibilities of Bhabha's third space, Ngcoza (2019) proposes a research focused on 'Mother Tongue' re-appropriation in ESD. Like Kayira, the author found literature emerging from an African context highlights the alienation of students in education, who do not recognise the knowledge used in the classroom because it is rooted in Western ontological assumptions. Additionally, the author shows that, when Indigenous knowledges are included in the curriculum, they are essentialised, and the large diversity of cultures ignored. Consequently, neither students nor teachers recognise themselves in curricular representations. The author argues that the creation of spaces in ESD that meaningfully engage with a plurality of knowledges, must enable re-appropriation of subjugated epistemologies. In order to support this, the author presents a framework that opens a third

space for the integration of Indigenous knowledge and modern science, in the study of the environment. In this approach, learners are to engage initially with the custodians of Indigenous knowledges (parents and community elders), to make sense of environmental issues and then bring them to the classroom. Ngcoza argues that through dialogue, experiential encounters and reflection on praxis, new knowledges and approaches to environmental issues can emerge.

Pesanayi and colleagues (2019) also critique the implementation of ESD in African contexts for relying on a salvation narrative to impose a modern colonial epistemology that does not make sense in the local settings. Revisiting the history of marginalisation and dispossession of Indigenous people, the authors call for an education approach that decentres Western hegemony and pluralises the histories of place that enrich learning. Through reviewing the literature, the authors show that in the face of a Westernised model of ESD, students and teachers have thrived when they worked collaboratively with Indigenous cultural resources. Consequently, the authors argue for situated approaches to ESD in African contexts that bring together a plurality of Indigenous cultures, in a space of deliberative ethics and reflexive learning. They maintain these approaches would 'enable learners to draw on a capital of cultural disposition and life experiences to raise questions and take up critical vantage points for a dialogical engagement with issues and risk' (p. 7). They call for training delivered by the UNESCO and a re-framing of ESD in order to make it relevant to African contexts.

On this same thread, O'Donoghue and colleagues (2019) discuss the abstraction and irrelevance of what they call 'non-sense' knowledge in ESD, within colonial education in African contexts. Through a review of literature focused on school curriculum, the paper exemplifies how Western science has appropriated Indigenous knowledge, repackaged it and then enforced it back in African schools, devoid of its contextual and cultural relevance. This abstraction has consequences not only for teachers, who have to learn it, but also for students who are unable to recognise or resonate with the content about environmental and sustainability issues. Still, the authors emphasise educators are proactive in developing pedagogical content knowledge that centres the African context and the situated experience of the students, through intergenerational processes of knowledge production. Nevertheless, they also recognise this is a challenge for teachers who not only have to learn the 'new' environmental knowledge and adapt it to students, but also to get to grips with the technology required to implement

the guidelines for ESD teaching. Imposed from above and causing such disruptions, the authors argue environmental education ends up reproducing colonial patterns. This Western framing of ESD also has a double-sided consequence for students, who are unable to relate to the Western content and start developing an alienation from their own heritage. Consequently, the authors call for a deep revision of content about teaching and learning practices in ESD. They argue for an approach that is situated within an African context, guided by ethical concerns, and shaped by intergenerational knowledge practices.

Pelacani and colleagues (2020) explore the decolonial possibilities at the intersection of critical EE and Heritage Education (education about a region's material and immaterial cultural practices) in Brazil. The authors critique conservative approaches to EE, based on superficial and individual approaches to environmental issues, that reproduce the dominant perspectives that led to our current environmental crisis. Instead, they call for an EE that takes a historical approach and traces global issues to colonial legacies of control over power, knowledge and being. The authors also argue such education ought to take up complexities and tensions, as well as the power relations at the core of unjust structures, as the starting point for discussions. Also, rather than separating nature and culture, a critical EE would start from their entangled existence. Finally, this approach would dismantle the forms of alienation and absences of local knowledges created through coloniality. In order to do this, the Pelacani and colleagues call for inter-multi-transdisciplinary and horizontal approaches between EE and Heritage Education. By exploring the history of local cultures, different knowledges and ways of being can re-emerge in their localities, countering what the authors call the zones of not being – onto-epistemologies marginalised through colonialism and its legacies. In bringing heritage and EE together, divisions between culture and nature would be challenged, and learning about both would be guided by other knowledges and perspectives.

Also exploring decolonial possibilities, Sund and Pashby (2020) contribute to both ESE and GCE fields, by exploring the possibilities for targeting modernity and coloniality in Northern European classrooms. Drawing largely on the work of Walter Mignolo, the authors explain that modernity/coloniality forms the basis and frame for our ways of knowing and being, through the control and management of five spheres (economy; authority; racism, gender and sexuality; subjectivity and knowledge; nature), sustained by the control over knowledge. The authors consider the extent to which Posthuman approaches have the potential to promote de-colonial

possibilities. They conclude that, although Posthumanism supports plural ways of interpreting the world, it does not address the frame of modernity/coloniality and so it fails to delink from it. Alternatively, the authors call for a *pluriversal* approach that de-centres Eurocentric epistemology and takes up 'power relations, situatedness, and complexities', in order to reframe our relationship to knowledge and others (p. 164). The authors present an example from a Science classroom in Sweden that shows the complexities of this practice, as even conscious efforts to critically dismantle modernity/coloniality, may get foreclosed by humanist and superficial analyses that end up reproducing dominant modern narratives. Sund and Pashby conclude by reinforcing the importance of pluriversal approaches that open spaces for students to engage with dominant as well as marginalised perspectives. They call for a pedagogical praxis that starts from positionality and the local context, promoting ethical engagements with global issue that 'can be transferred, but not generalised' (p. 167).

Building on criticisms of the Western-centric UNESCO agendas, Sharma (2020) aims to contribute to the inclusion of non-Western perspectives in curricular discussions about GCE and ESD 'that bring into focus alter-native ways of thinking, being, acting, and living that have informed people and have led to the development of sustainable communities world-wide' (p. 28). Bringing to the fore non-Western philosophies and values-based approaches, the author explores possibilities for other understandings of social justice that move beyond individual empowerment and towards collective efforts. Introducing the work of Japanese educators Tsunesaburo Makiguchi, Josei Toda and Daisaku Ikeda as well as the work of Mahatma Ghandi, Sharma highlights the commonality in their dharmic understanding of life, underpinned by universal laws that extend through and bind self, nature and the social environment together. Drawing on this philosophy, the author defines a framework for Value-creating GCE, based on individual (not individualistic) fulfilment, achieved through building connections with the natural and social environment; and a common humanity, concerned with challenging stereotypes and developing a capacity for compassion towards all of earth's inhabitants. Global issues are approached through a non-dualist response, centred on the connections between self-other-Nature-universe, and based on shifting individual attitude, which is thought to have consequences for the social and natural environment. To achieve this, Sharma proposes a curricular approach based on students' engagements with non-Western epistemologies, and reflection on those engagements, which is then applied to cumulative tasks. The author proposes three key

questions that might guide such engagements in the classroom: What are the key challenges faced by these [non-Western] thinkers that can be identified through a contextual and historical analysis? How have the "values" systems or values and beliefs of the thinkers impacted upon education today? Is there any way in which the findings of this analysis may have generalisable use for future studies?

Kerr and Andreotti (2018) aimed to centre engagements with more-than-human species in discussions about social justice. Positing a disregard of the more-than-human as a consequence of anthropocentrism inherent to Western modernity, the authors develop a decolonial approach to research that can support more ethical engagements with ecocritical pedagogy. Drawing on decolonial scholarship, the authors highlight the relation between modernity and coloniality which is sustained by a dominance of Western ways of knowing and being. Kerr and Andreotti developed a conceptual framework entitled AWEsome, that brings together decolonial and critical theory to analyse dispositions towards social jus-tice, concerned with human and more-than-human. The AWE section of the framework comprises of a triangle that brings together Jacques Derrida's concept of autoimmunity (narratives that normalise and perpetuate inequality and exclusion of Other or more-than-human); Linda Martin Alcoff's idea of willful ignorance (procedures and practiced embedded in society that allow the maintenance of innocence); and Enlightenment epistemology (dominant knowledge that supports auto-immunity and willful ignorance). The 'some' section of the framework focuses on settler narratives (that silence and marginalise Indigenous ontology and epistemology), objective knowing (as the only way to reach credible knowledge), multicultural innocence (narratives of meritocracy that disregard systemic privilege) and exalted subjects (narratives of the white benevolent citizen). Adding to key points of concern in the above sections, Kerr and Andreotti (2018) reinforce the importance of centring non-human beings in discussions about social justice in the field, and address the complexities of the modern/colonial imaginary by developing a framework that targets different processes involved in ensuring its dominance.

Radical-Beyond-Ontological

Six papers mapped onto the Radical-Beyond-Ontological sub-section. Four articles from the field of GCE (Andreotti, 2014; Dreamson, 2018; Pashby et al., 2020; Wang & Hoffman, 2020) and two from ESE (Blenkinsop et al., 2017; Blenkinsop & Fettes, 2020). In this sub-section, the geo-political contexts from where the literature emerges is less varied, with all papers coming

from global North contexts, from settler colonial countries, such as Australia, Canada and USA (with the exception of one).

Speaking from a Global North context, Andreotti (2014) discusses the importance of critical and transnational literacy in international development and GCE, and their potential to promote responsible, complex and plural engagements with global issues. She defines critical literacy as a practice of reflexivity that traces individual assumptions to particular narratives which frame our possibilities for being, knowing and doing. In this way, critical literacy centres questions of power in knowledge production and representation, challenging assumptions that knowledge is objective and self-evident. Transnational literacy is defined as an extension of critical literacy and allows students to identify and challenge hegemonic narratives, whilst recognising their own complicity, with global issues. Andreotti identifies four narratives about society, education, development and diversity: technicist instrumentalist, liberal humanist, critical and post-critical, and "Other" (p. 42). The author argues only the first three narratives are recognisable to us as they all still work within the frame of modernity. However, she also acknowledges the possibility of existence of other frames (a forth option: 'other(s)'), currently intelligible to us – overly socialised in the frame of modernity.

Also writing in the Global North, Pashby and colleagues (2020) conducted a meta-review of GCE typologies as a way to scope conversations taking place in the field. The review applied a social cartography that originated in a heuristic of three dominant discursive orientations in GCE (neoliberal, liberal and critical) and their interfaces. Pashby and colleagues found the neoliberal discursive orientation comprised the largest number of consistent 'types' of GCE described in typologies, showing a consensus on conceptualisations of these approaches; the liberal discursive orientation encompassed the largest variety of distinctions and names attributed to different versions of GCE, within a single discursive orientation. The approaches to GCE that would be understood a falling into a 'critical' discursive formation show the largest conflation of very different understandings of GCE aimed at structural change. Additionally, many types conceptualised as 'critical' intersection with liberal and a few to neoliberal discursive formations. Consequently, the authors argued for a more complex approach that focuses the tensions, conflations and contradictions at the interfaces of different approaches. Modelling this, the social cartography opened up possibilities for the identification of new discursive orientations: neoconserva-

tive and post-critical; and interfaces between: neoliberal-liberal, neoconservative-neoliberal-liberal, liberal-critical, critical-liberal-neoliberal, critical-liberal, and critical-post critical. The use of social cartography, also allowed the authors to map significant absences in discussions. Aiming to prompt other kinds of conversations, the authors presented three sets of questions that targeted the edges of debates in the field. These are of a methodological (focus on changing the methods without questioning the end result), epistemological (focus on methods and end result) and ontological (focused on being otherwise) nature. Pashby and colleagues argue the field has largely stayed away from conversations that take up ontological questions to challenge the mod-ern/colonial imaginary, having instead focused on critical approaches that are more concerned with reform from within it. They conclude 'only once we have understood the difficulty and even the impossibility of transcending this imaginary [that] something different can become possible' (p.161).

Blenkinsop and Fettes (2020) explore the practice of Land acknowledgement as Environmental Education. The authors question what is it that is not said in these acknowledgments that have become common practice in Canada. They argue for a move beyond acknowledgement (based on speaking) to a continuous process that starts with listening and sharing stories that shift the way we understand Land, from something we live on and use to something that we are related to. The authors explore the possibilities of this dialogue through a discussion on Land, language and listening. They contrast Western understandings of land (as separate, something that can be mapped, divided and used) to Indigenous conceptions of Land as first teacher – an entangled system of intelligence in constant movement that we are born into. As such, our first task is to observe and listen so that we can learn our rights and responsibilities. Blenkinsop and Fettes wonder how taking the Land acknowledgements as an invitation to relate to Land in this way might allow us to restore the alienation created by anthropocentrism and other dividing narratives. In this way, acknowledgments would also name and redress past and present harm. In considering the use of language, the authors highlight Indigenous storytelling as a way to complexify our understanding of the world and challenge dominant narratives. Importantly, the authors argue change will not only come from telling different stories, but from also paying attention at the stories that we embody in our actions. Finally, Blenkinsop and Fettes consider respectful listening, as opposed to instrumental listening (concerned with extracting information) and argue educators ought to 'be able to support learners to 'lean into' and stay

with difficult conversations about privilege and colonialism' (p. 11), whilst always being alert to the ways Eurocentrism re-centres itself.

Blenkinsop and colleagues (2017) analyse the colonial relation between modern humans and nature, through Albert Memmi's book *The Colonizer and the Colonized*. Acknowledging the restrictive and possibly inappropriate use of the term colonisation to refer to the natural world, the authors argue that an anti-colonial frame that conceptualises humans and non-humans in a spectrum can be helpful to identify violent processes that subjugate the natural world. Through Memmi's book, the authors show that the colonisation of the natural world is built on a self-sustaining system that legitimises itself, silencing opposing perspectives and protecting the colonizer from having to face their complicity in it and its harmful consequences. Blenkinsop and colleagues also show how colonisation is disavowed by the hierarchisation of certain characteristics that justify superiority and alienate the other, constructing the coloniser as exceptional and the colonised as homogenous, invisible, unknowable. Violence is sanctioned and perpetuated because the colonial fabric already has the structures needed to conceal it, and the colonisers are trained 'not to know that which they know' (p. 359). Then, when engaging with the violence of colonisation a cognitive dissonance emerges that either leads to heroic individual acts (re-centring the coloniser), or a renewed commitment to colonisation. The authors call for a 'shut up and listen' approach to EE that suspends thinking to open up ontological and epistemological possibilities. This approach starts with our complicity as colonisers and is based on a continuous critical reflection about the way we make sense of the world, always assuming an underlying colonial influence informing our thinking. This means moving away from an emphasis on 'solving' environmental issues to making space for listening and supporting students to purposively use silence, reflection and unexpected encounters with the natural world. This approach also recognises the importance of language in reifying colonialism and argues that a good starting point would be to deconstruct and reconceptualise "the natural world".

Speaking from within the field of GCE, Dreamson (2018) takes up a key point of contention related to the ability to promote universality, whilst ensuring particularity. He argues this incommensurability cannot be ignored, nor solved with critical thinking. For Dreamson, the notion of critical thinking starts from an assumption of unbound universality, as if it is a practice outside the cultural context in which it takes place. Dreamson proposes a cultural approach to GCE that goes beyond the dualism between universal-

ism and particularism. Starting from the position that values flow and cultures are built on them, the author argues for a meta-physical approach that challenges Western ontology and epistemology and re-frames culturally inclusive GCE. This approach thus would allow for the equal positioning and integration of non-Western ways of being in relation to Western ones, and promoting a break with a dualistic approach to values. Dreamson ends by calling for alliances between non-Western cultures/religions to develop more culturally inclusive pedagogies, and also invites Western researchers to take part as allies.

Taking on a similar tension, Wang and Hoffman (2020) discuss universal assumptions underpinning GCE, drawing on Emmanuel Levinas' philosophy. The authors argue that mainstream understandings of globalisation are deeply rooted in the Cartesian self that, through colonisation, created a division between 'we' in the 'West' and *the other*. Western discourses of globalisation already assume an identity of the other, and universal principles such as human rights originate in this distinction. Closely related to discourses of globalisation, GCE reproduces this logic and students might understand global forms of oppression, but are not challenged to deconstruct the colonial condition at the core of that oppression. Drawing on Levinas, Wang and Hoffman argue that forms of relation based on acts of comprehension, and assumption of equality, leads to violent acts of totalising and assimilating the other, which reproduces coloniality of being. Wang and Hoffman conclude that encounters with the other require a suspension of such assumptions and an openness to singularity. Consequently, GCE cannot be based on ideas of common (dominant) principles or shared values, and global citizenship has to start from uncertainties, rather than the assumptions that 'we' know the other's suffering and their problems, and that 'we' are going to solve them. The authors argue for a GCE approach that emphasises listening first, and reflections on pre-conceived understandings such as human rights, social justice, and globalisation. In this way, GCE should be a practice that takes up tensions and complexities, interrupting rooted universalised and totalising assumptions that offers no guarantees. Wang and Hoffman highlight the importance of experiencing discomfort as part of students' engagements with GCE, but also of equipping them with the tools to navigate that experience.

Beyond-Reform Space

Five papers, all from the field of ESE, mapped onto the Beyond-Reform space for the way they provide other ways to conceptualise engagements

with sustainability. Although some of them are still concerned with re-forming (Whitehouse et al., 2014; Vieira, 2020) or 'hacking' (Stein et al., 2020) the system, whilst others appear more concerned with making a case for 'hospicing' it (Savelyeva, 2017; Wang, 2017).

Whitehouse and colleagues (2014) provide a theoretical discussion of Sea Country, based on two different examples of Australian EE curricula. Sea Country represents the ways of being and knowing (Ailan Kastom) of the coastal Aboriginal peoples and Torres Strait Islanders, grounded on a relational ontology to Land and Sea. This ontology has recently become recognised by the Australian government in the national cross-curricular priorities for compulsory education in Australia. Focusing specifically on the inclusion of Country/Place as one of the key curricular priorities, the authors argue that, although the inclusion of Country is an important step to Land Education, its conflation with Place clouds its meaning and denies its singular existence. In this way, the curriculum both acknowledges and denies Sea Country, hindering the possibility for a meaningful engagement with Aboriginal and Torres Strait Islanders' ontology and epistemology. In contrast, Whitehouse and colleagues discuss the Sea Country Guardians programme, which explicitly draws on and centres Aboriginal languages and knowledge, respecting traditional practices in the region. This programme exemplifies the possibilities for decolonial approaches to Land Education, when local communities are consulted and actively involved in the creation of the curriculum (which happened in the creation of the Sea Country Guardians programme, but not in the development of the national curriculum priorities). The authors argue meaningful efforts to decolonise the curriculum need to go beyond superficial and sporadic inclusion of Aboriginal perspectives and be grounded on a long-term commitment to curriculum design that provides a strong basis for teaching and learning, and is accompanied by support for teachers and students.

Acknowledging the multiplicity of sustainable spaces in the world, Vieira (2020) presents a framework to understand EE that is rooted in *other* pedagogies, emergent from traditional communities. Drawing on decolonial scholarship, Vieira discusses a techno-instrumental and universalist approach to EE, which the author argues is more concerned with economic growth, and separates nature and culture. The author then distinguishes this approach from another that is based on place and an ontological relationality with the Earth, where knowledge and praxis are entangled. Drawing on two examples of pace-based sustainability from local reserves in Brazil, the author finds sustainability looks distinct in different contexts, and is

ensured through different onto-epistemological relations with nature. Consequently, he argues there is a need for teachers to engage and learn from their communities, and calls for a pedagogy of 'Bem Viver' as an alternative to development. 'Bem Viver' is accomplished when local communities are left to develop their own forms of sustainability and equity, outside of the modern-colonial epistemologies. Vieira argues that, if we are to move beyond individualistic and technicist approaches, we ought to learn from peasant and Indigenous communities to relate differently with the world.

Savelyeva (2017) critiques the lack of acknowledgment of non-Western perspectives in Sustainability Education (SE) research, which has largely been action-focused, continuously looking for best practices in policy enactment. The author argues this perpetual search will be unsuccessful if it continues to step over the onto-epistemological frame of Western modernity, informed by a hierarchical separation of human and nature. Responding with non-Western alternatives, the author discusses two anthropocosmic philosophies: the Russian noöspherism, developed by Vladimir Vernadsky, and Korean neo-Confucianism, developed by Yulgok Yi. Noöspherism views the human-nature relation through an experience of unity, in infinite co-relations between different forms of life in the universe that are not reducible to anthropocentric perspectives. Still based on Western science, Vernadsky sees human reason and love as the propellers of evolution in the universe. Neo-Confucianism also starts from a point of cosmic unity, where all life deserves the greatest respect, and all living beings are connected through endless relations with infinite possibilities. Humans engagement with the universe is based on symbolic interpretations of different interactions, based on perception, not rational thinking. The author argues neither of these philosophies is concerned with practical solutions, but with ontological framings. Consequently, without an onto-epistemological reconceptualization of sustainability, sustainability might not be possible. Recognising the tensions between and within non-Western and Western approaches, the author calls for a multi-layered approach of threads and sub-threads, and an open dialogue that engages with different cultures and sustainability implementations across contexts.

Wang (2017) critiques scientific approaches to SE based on anthropocentric views, and puts forward a Buddhist philosophy as a framework that centres the relationships between humans and nature. The author argues for a metaphysical transformation, based on an 'attitude of the mind toward nature' (p. 551), although he acknowledges this is difficult to grasp from within Western culture, where dichotomies frame our understanding of the

world. The same is not true for Asian philosophy, that is based on relationality rooted in 'an organic oneness' (p. 552). The author draws particularly on the Buddhist concept of *no-self*, which frames existence as necessarily relational and in constant flux. In Buddhist philosophy, the self ought to disappear to open up the possibility to exist with the world. This relational existence is possible only because this philosophy is not ontologically framed by dualist hierarchies of human/nature or spiritual/matter. The author maintains sustainability is currently rooted in human actions, needs and fears of death, but needs to be based on horizontal relationality with nature. This requires moving beyond intellectual-based activities towards experiential ones, and being attentive to and engaging with nature. The author suggests the practice of mindfulness, rooted in Buddhist culture, arguing change can only come from overcoming dualistic and egocentric thinking.

Speaking from a Global North context, Stein and colleagues (2020) propose a shift from ESD to 'education for the end of the world as we know it'. Starting from the point that it is not more knowledge or better values that will resolve current sustainability issues, the authors argue the current crises can only be addressed by targeting the denials, desires and investments in harmful modern/colonial ways of being. The authors contend that the immaturity of modern subjects impacts on their ability to 'hold space for complexity, uncertainty, complicity, failures and difficulties without becoming overwhelmed, irritated, or immobilized' (p. 8). Consequently, they call on us to 'grow up' so that we can 'show up'. Showing up is understood a disposition to accept responsibility of deeply committing to what needs doing rather than what is wanted. This arrival should not come from being convinced, but through a recognition of the entanglement between human and other-than-human. The authors then argue education approaches need to go beyond historical analysis of how we got here to focus on interrupting and suspending our investment in the satisfactions that we take from modernity-coloniality. Doing this work can be supported by three radars: the band-aid radar (triggered by superficial approaches, based reform and solutions, that deny complicity in harm); the fragility radar (which identifies affective responses that deflect responsibility); and the layering radar (which distinguishes what are existential and what are political responsibilities).

Mapping the Theoretical Literature

Key Themes

Largely acknowledging onto-epistemological dominance, theoretical conversations across the fields (please see figure 1) provide critiques of Western modernity based on control over knowledge production (Radical-Reform Space) and Western ontological dominance (Beyond-Reform Space). Critiques emerging from a Radical-Reform Space show how processes of knowledge production in ESE and GCE contribute to the reproduction of dominant identities and epistemologies. For example, Calderon (2014), La Paperson (2014) and McCoy (2014) discuss the settler colonial triad in the Canadian context, explaining settler narratives construct Indigenous people as immigrants with no rights to land, Black people as land workers who must remain landless, and white people as the ones destined to find and own the land. Sutoris (2015), Blenkinsop and colleagues (2017) and Kumalo (2017), writing from different geo-political contexts, show how a universalised narrative of development (made possible through a disavowal of the past) allows for the deployment of a salvation narrative that justifies Western dominance in ESE and GCE curriculum. The theoretical literature also highlights the epistemological violence reproduced in ESE and GCE, enacted through the silencing and marginalisation of other knowledges (e.g. Calderon, 2014; Kumalo, 2017), as well as the invisibilisation of other forms of violence, for example towards other-than-humans (Blenkinsop et al., 2017; Kerr & Andreotti, 2018).

Superficial approaches to curriculum design (Whitehouse, 2014; Pelacani et al., 2020) and instrumental teaching methods are also discussed and understood to reproduce Western epistemological dominance in ways that both assimilate and alienate the other. Wang and Hoffman (2020) argue classroom discussions start from totalising assumptions about what global issues are and how they are experienced and solved, whilst Kayira (2015) and O'Donoghue and collegaues (2019) highlight the alienation of students from the education process, in a South African context. This alienation is caused by the imposition of a Western knolwedge system that is devoid of meaning in the context where is being taught. This imposition not only impacts students, but also teachers, who have to first learn the content in order to teach it to their pupils (Kayira, 2015; O'Donoghue et al., 2019). When local knowledge is included in the curriculum and teaching, this seems to be

done only sporadically and superficially (Whitehouse et al., 2014), in a way that both romanticises and objectifies it (Kayira, 2015).

The theoretical literature places a strong emphasis on the importance of contextual responses to Western dominance in ESE and GCE and suggest the need to:

- develop situated approaches to teaching and learning (Kayira, 2015; Kumalo, 2017; Sutoris, 2019; Pelacani et al., 2020; Sund & Pashby, 2020; Vieira, 2020);
- re-appropriate local knowledges (Ngcoza, 2019);
- employ critical methods of analysis around global issues, that question who is driving conversations (Sutoris, 2019) and the ways in which these issues are framed (Andreotti, 2014);
- complexify conversations around development (Savelyeva, 2017; Kerr & Andreotti, 2018; Wang & Hoffman, 2020), taking up issues of complicity (Blenkinsop et al., 2017) and power relations (Sund & Pashby, 2020);
- promote a practice of critical reflection (Blenkinsop et al., 2017) or critical reflexivity (Andreotti, 2014), that puts into question normative assumptions that inform how we make sense of the world, and keeps tracing the unconscious ways in which Eurocentrism is recentred in our thinking and actions (Andreotti, 2014; Blenkinsop et al., 2017; Blenkinsop & Fettes, 2020);
- develop collaborative and dialogic approaches to reach out across epistemological spaces (Kayira, 2015; Pesanayi et al., 2019).
- create opportunities for having difficult, complex and uncomfortable conversations about priviledge, complicity and colonialism (e.g. Blenkinsop & Fettes, 2020; Stein et al., 2020; Wang & Hoffman, 2020).

Many of the papers reviewed also highlighted the importance of historicising global issues, tracing them back to colonial pasts (e.g. Calderon, 2014; Pesanayi et al., 2019; Pelacani et al., 2020), and promoting plural approaches in ESE and GCE (e.g. Pesanayi et al., 2019). Pushing the edge of these conversations from a Radical towards a Beyond-Reform space, Stein and colleagues (2020) argue we need to go further than historical analysis, and examine and interruption our investments in the satisfactions we get from modernity. The authors seem to be pointing to a limitation of an over-reliance on knowledge-based approaches in responses to modernity's consequences. These limitations are also identified by Savelyeva (2017) and Dreamson (2018), who argue that rational and critical thinking are always

already framed by the dominant onto-epistemological imaginary, making it difficult to get outside of it. Importantly, Kerr and Andreotti (2018) and Blenkinsop and colleagues (2017) also highlight the ways in which we are trained not to know or see the violence caused by the system, and so are able to claim innocence.

Exploring possibilities beyond an emphasis on the intellect, some authors call for an understanding of knowledge as also embodied, rather than only written or spoken (Blenkinsop & Fettes, 2020), and discuss the importance of affective approaches to ESE and GCE, based on respectful listening, rather than speaking (Blenkinsop et al., 2017; Blenkinsop & Fettes, 2020). These suggested responses to Western modernity, are positioned at the intersection between Radical and Beyond-Reform space as they start engaging with ontological questions as well as epistemological ones. Sund and Pashby (2020), however, provide an important word of caution, as they discuss the recent move towards Posthumanism in ESE. The authors argue that an engagement and exploration of different ontological questions does not necessarily target and delink from modernity. In this way, ontological innovations in the fields can simply add to the kaleidoscope of perspectives already existent within the modern/colonial imaginary.

Finally, conversations enunciated in the Beyond-Reform Space target the frame of Western modernity and make a case for non-Western approaches

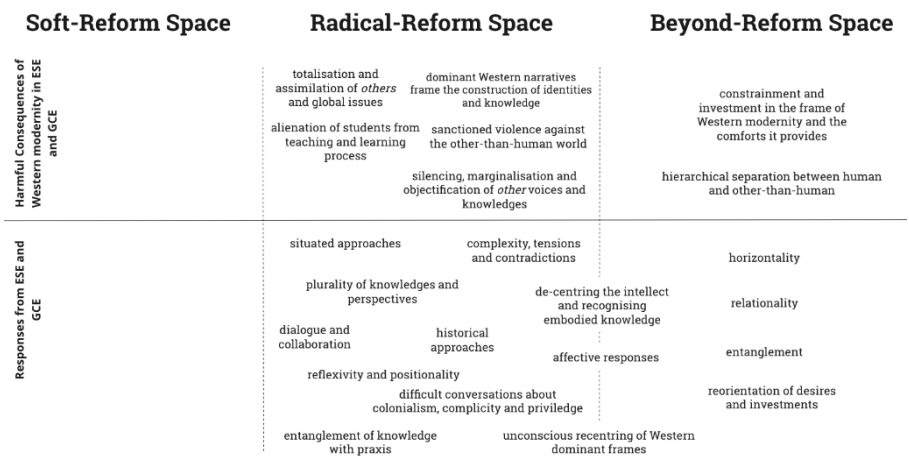

Figure 1 Key themes from theoretical literature mapped onto Andreotti and Colleagues' (2015) social cartography

to ESE and GCE, drawing on a range of different philosophies (e.g. Savelyeva, 2017; Wang, 2017; Sharma, 2020; Wang and Hoffman, 2020). The responses positioned within a Beyond-Reform space highlight the need to move beyond dualist approaches that focus on individual empowerment, towards a collective existence, based on a horizontal and entangled relation between self-other-nature-universe.

Individual Contributions

Mapping each of the papers separately provides further nuance to the discussion above, by allowing for a more detailed engagement with the possibilities and limitations of critiques of Western modernity emerging from the different spaces of enunciation defined by Andreotti and colleagues (2015) (please see Figure 2).

Two papers were positioned in the Radical-Reform Space (Kumalo, 2017; Sutoris, 2019). These start from a place of acknowledgment of epistemological dominance, particularly in relation to conceptualisations of development, and both authors provide an interesting discussion of ESE as framed through responsibility and commitment towards other generations – past, present and future. However, critiques of Western modernity provided in these articles still rely on Western liberal epistemological tools, based on pluralism and deliberation (Sutoris, 2019), or Capability Approach (Kumalo, 2017), and responses largely rely on methodological strategies, i.e. cross-curricular approaches and interactive situated learning (Kumalo, 2017) and ethnographic methodologies (Sutoris, 2019). In this way, the authors proposals might allow for an extension of Western modernity, but will be constrained in challenging it.

Emerging from many different geo-political contexts, the papers mapped onto the Radical-Beyond Reform interspace have all identified Western onto-epistemological dominance in ESE and GCE. These texts highlight how the fields have worked to reproduce Western hegemony, through sustaining the harmful division between 'us' (in the Global North) and 'them' (in the Global South) (Wang and Hoffman, 2020), as well as other hierarchical separations between human, culture and nature, inherent to Western ontology (Blenkinsop et al., 2017; Kerr & Andreotti, 2018). Literature in this section also showed distinctions based on context. Research emerging from the Global South appears generally more concerned with counter-hegemonic practices and situated forms of resistance against Western onto-epistemological hegemony. These papers discussed the marginalisation and reification of Indigenous knowledges (Kayira, 2015; Ngcoza, 2019) and the

abstraction of ESE content, at odds with the ontological frame of participants (Kayira, 2015; Ngcoza, 2019). Articles emerging from the Global North, both from settler colonial and European contexts, seemed more concerned with identifying and challenging dominant Western narratives, and engaging with marginalised perspectives (e.g. Calderon, 2014; La Paperson, 2014; McCoy, 2014; Sund & Pashby, 2020). Across geo-political contexts, there was an emphasis on the importance of dialogue and collaboration (Kayira, 2015; Ngcoza, 2019; Pesanayi et al., 2019) in challenging the modern/colonial imaginary in ESE and GCE.

Many of the papers followed their critiques of Western onto-epistemological dominance by developing knowledge-based responses, and were mapped onto the Radical-Beyond-Epistemological interspace. Still, there can be further distinction between these knowledge-based responses. For example, Pesanayi and colleagues (2019) suggest a two-way dialogue with organisations such as the UNESCO to better understand the global discourse framing ESE, and ensure its relevance to the African context. This response suggests an emphasis on extending the current definition of ESE to also include marginalised perspectives. It differs from, for example, Calderon's (2014) call for collaboration between Western and non-Western perspectives toward decolonial efforts, or Sund and Pashby's (2020) work to identify mainstream perspectives, in order to challenge and de-centre them. Both Calderon (2014) and Sund and Pashby (2020) focus on engagement with Western discourses as an effort to delink from, rather than integrate within its frame. Still, neither response is inherently better, and context is key in this analysis. Pesanayi and colleagues are writing from a southern African context, aiming to address the dominance of Western modern knowledge in education, justified as a measure to 'put things right in Africa' (p. 1). Their suggestion for the expansion of concepts such as development and sustainability to include local epistemological approaches is a key effort in responding to the imposition of abstracted knowledge in this context. Calderon, and Sund and Pashby are writing from Global North contexts, specifically a settler colonial country (Calderon) and northern European countries (Sund & Pashby). Their work is more concerned with challenging Western onto-epistemological dominance 'at home', recognising how indigenous ways of knowing and being are marginalised by settler colonialism (Calderon), and the colonial legacies at the root of global issues that are often perceived to be far away (Sund & Pashby).

Moving beyond epistemological responses to Western onto-epistemological dominance, articles mapped onto the Radical-Beyond-Ontological sub-

section signaled toward ontological alternatives in ESE and GCE. For example, Andreotti (2014) marks as 'Other(s)' ways of knowing and being unintelligible for those of us overly socialised within the modern/colonial imaginary. Pashby and colleagues (2020) guide us toward ontological efforts in GCE by raising reflective questions, and Dreamson (2018) calls for metaphysical approaches that challenge the Western dual ontology. Other papers attempt to carve out theoretical responses that decentre the intellect. This literature emphasises the need to develop our senses, i.e. listening, observing (e.g. Blenkinsop et al., 2017; Blenkinsop & Fettes, 2020; Wang & Hoffman, 2020) and making room in education for the colonial stories that we embody (Blenkinsop & Fettes, 2020).

Across the Radical-Beyond Reform interspace, Dreamson (2018), Sund and Pashby (2020), and Wang and Hoffman (2020) provide interesting discussions about the limitations of Eurocentric critiques of modernity and the reliance on 'critical' engagements with global issues. Dreamson (2018) challenges the assumption that 'critical thinking' can do away with the tension between universalism and particularism at the core of GCE. He argues critical thinking is always already framed by the dominant culture, and that GCE needs to take on a metaphysical approach that challenges Western ontology. Similarly, Sund and Pashby (2020) and Wang and Hoffman (2020) show that efforts to decentre Western ontology require a critical engagement with the frame of Western modernity, if they are to be more than another perspective assimilated within it.

All articles mapped onto the Beyond-Reform space provide a very specific take on ESE, highlighting the importance of context in conceptualising and experiencing sustainability, as well as alternatives to Western ways of being and relating. For example, Whitehouse and colleagues (2014) and Vieira (2020) offer Indigenous alternatives to relating with the environment, and consider how they might be included in the curriculum, through an understanding of knowledge as entangled with praxis (Vieira, 2020) and dialogical approaches to curriculum development (Whitehouse et al., 2014). These responses to modernity's harm resemble Andreotti and colleagues' (2015) discussion of 'system walk out', in the sense that alternatives are searched for outside Western institutions. However, this response is followed by 'walking back in' efforts to reshape the system from within. 'System walk out'/'walk back in' responses can lead to important gains in improving recognition and extending participation in ESE, although they might still be limited by the dominant knowledge framing education and education insti-

tutions. Stein and colleagues (2020) suggest instead that we target our Western unconscious, particularly the denials, desires and investments in the modern/colonial system. Their response to Western modernity is more aligned with Andreotti and colleagues' (2015) 'system hacking', based on opening up spaces within Western institutions and supporting people to trace and re-arrange their desires and investments in modernity's satisfactions. However, these spaces might also become assimilated by the institution, and 'it can be difficult to recognize when one is 'hacking' the system or 'being hacked' by it (Andreotti et al., 2015, p. 27). Savelyeva (2017) and Wang (2017) acknowledge that alternatives enunciated from within the modern/colonial imaginary will fail to reform it, suggesting a stronger alignment with the 'hospicing' response highlighted by Andreotti and colleagues (2015). Both authors argue for a move away from concerns with intellectual and action-based solutions for ESE to highlight the determinist aspect of the Western ontological frame. Savelyeva (2017) particularly highlights the impossibility to move toward sustainability from within an ontology based on separability and hierarchy, whilst Wang (2017) emphasises the limits of an ego-centric Western existence, guided by individual desires and a fears of death.

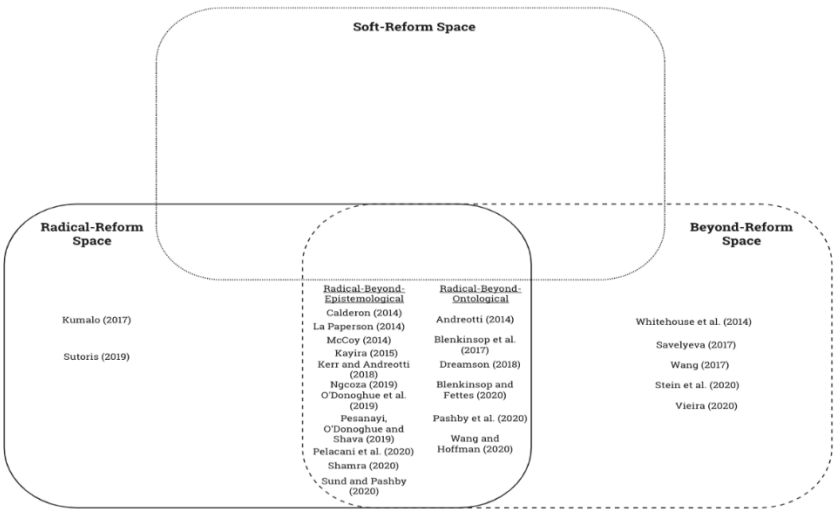

Figure 2 Theoretical papers mapped onto Andreotti and colleagues' (2015) social cartography

Findings – Empirical Papers

In total, 21 empirical papers were selected for the review, 11 from the field of GCE, seven from the field of ESE, and three combining both fields. Four articles mapped onto an interspace between Soft (focus on system expansion through new ways of doing things) and Radical Reform (focus on restructuring the system, based on an acknowledgement of epistemological dominance), whilst the remaining 17 mapped onto the Radical-Reform Space. Although all papers in the Radical-Reform Space targeted Western epistemological dominance, they appeared to put forward two different responses: 12 of the papers were more concerned with identifying the discourses and processes that ensure that dominance, whilst five of them were engaged with work that promoted an extension of the system. Thus, I divided this space into two sub-sections ('Naming' and 'Extending'), in order to acknowledge those distinctions. In this section, I introduce each paper under its place on Andreotti and colleagues' (2015) social cartography.

Soft-Radical Reform Interspace

There were four articles that mapped onto this space, two from the field of GCE (Reilly & Niens, 2014; Truong-White & McLean, 2015) and two from the field of ESE (Walshe, 2018; Gyberg et al., 2020). Truong-White and McLean's (2015) study focused on curriculum content, whereas Reilly and Niens (2014) and Gyberg and colleagues (2020) explored teachers' understandings and attitudes towards teaching about GCE and ESE, respectively. With a stronger emphasis on practice, Walshe (2017) examined the impact of interdisciplinary approaches to sustainability issues in geography teaching.

Truong-White and McLean (2015) explored the potential of digital story telling in promoting transformative GCE through a close study of the climate change curriculum of Bridges to Understanding – an international digital story-telling programme through which secondary school students from different countries work together to learn about global issues. Grounded in critical pedagogy, the authors combine Johnson and Morris' (2010) four dimensions of global citizenship (politics/ideology; social/collective; self/subjective; praxis/engagement) and Mundy and colleagues' (2007) dispositions for global citizenship (commitment to the idea of basic human rights, social justice and environmental sustainability; commitment to the value of cultural diversity and intercultural understanding; belief in the efficacy of individual action), to develop a frame-work for Transformative

GCE (p. 6). Data was collected from the programme's Climate Change curriculum, and two of the digital stories developed by students in two different countries (India and USA). In a first stage, the curriculum was analysed and mapped onto the Transformative GCE framework, and in the second both the curriculum and the digital stories were analysed through a multimodal discourse analysis model. The authors found that although teachers were given a set of Power Point slides to deliver the content, the resources did not support them with promoting critical engagements from students. Additionally, although the resources were geared towards taking action, they largely privileged Western perspectives and individual responsibility. However, the authors also found activities like the journal reflection, promoted critical engagement with the content; and the digital story activity was effective in including marginalised perspectives in the curriculum. Additionally, the authors considered the digital story supported students with critical discussion, towards a consensual narrative. They conclude with suggestions for praxis, highlighting the importance of supporting both teachers and students to create inclusive spaces for a critical and ethical engagement with global issues.

Working within a post-conflict European society, Reilly and Niens (2014) explored teacher, school and student approaches to GCE in Northern Ireland. Drawing on Paulo Freire's concept of critical pedagogy, the authors define GCE as based on critical reflection, dialogue and action. The article discusses some findings from a larger study that took a mixed-method approach, and includes data collected from nine focus groups (ranging from two – 16 participants), interviews (with 17 teachers) and questionnaires (responded by 401 students). Qualitative data was analysed through thematic analysis, and quantitative data through descriptive statistics and analysis of variance. Data was then mapped onto Veugelers's (2011) categories of open, moral and social-political GCE. Findings show that teachers' approach to global issues is largely influenced by their school approach, staff and wider community, and directly influences students' identities and attitudes towards global issues. The authors also found schools took either an open or moral approach to GCE, but there was no evidence social-political GCE. Consequently, although both teachers and students showed enthusiasm about engaging with global issues, understandings of GCE were mostly based on awareness raising and openness to others (in other countries), and there was a lack of comprehension of the inter-relatedness between local-global. Teachers found environmental issues the most enjoyable global topic to teach because they did not perceive it as controversial, and

they could find resources for it easily. On the other hand, Reilly and Niens found discussions around economic and geopolitical interdependence were perceived by teachers as not suitable for the classroom. Interestingly, students commented that issues around the environment were important, and they were passionate about recycling and saving water. Yet, they took a much more superficial approach to issues of poverty, for which they largely attributed blame to those experiencing poverty. Teachers were influenced by the school community in their engagement with global issues in the classroom as well as the lack of time to develop materials, the overloaded curriculum and the staff changes in their school. Consequently, the authors concluded 'teachers need more than knowledge and methodological expertise – they must develop a clear political understanding of the issues explored, which necessitates time for critical reflection and opportunities for discourse among teachers themselves' (p. 69).

Considering teaching strategies the product of discursive formations, Gyberg and colleagues (2020) analysed the relationship between teachers' understanding of sustainable development and their classroom approaches in Sweden. Lamenting the solution-oriented approaches to teaching of sustainable development that misses a discussion on the causes of these issues and the complexity inherent to them, the authors were interested in the way teachers take up this complexity in the classroom. Drawing on Michele Foucault's understanding of discourse, in this specific case around the 'environmentally aware citizen' (p. 3), the authors posit that teachers' construction of ESD both frames and produces possibilities for being and acting, whilst excluding others. Data was collected through semi-structured individual and/or group interviews (with 40 teachers, from 17 different schools) and analysed through thematic analysis. Participants in the study taught subjects such as Science, Technology, Mathematics, Social Sciences, Home Economics, languages, Sport, Health and Art. The authors found teachers understood ESD in largely negative terms as being too political and too heavy, so they delivered it through more conservative approaches that lacked criticality in engagement with ESD issues. Consequently, ESD teaching became about individual behaviour and life-style choices. Additionally, teaching was mostly informed by a solution-based approach. The authors conclude there is 'a lack of critical perspectives on what knowledge about SD is in Swedish schools, and perspectives that do not support a dominant liberal discourse tend to be excluded' (p.10) and call for more meaningful engagement with knowledge and actions related to environmental issues.

Walshe (2017) explored the possibilities of interdisciplinary approaches to sustainability issues, in a geography classroom in England. Emphasising the political, the author centres the democratic and affective dimensions of teaching ESE. The study makes use of poetry (Simon Armitage's 'A Vision') to promote meaningful engagements with the topic of sustainability. Walshe took a social constructivist methodological approach and carried out an interpretive case study. Data was collected before and after a lesson on sustainability in cities each time using drawings (of students' views of a sustainable city) and semi-structured interviews (with five selected students of a range of academic abilities). It was then analysed through open and manual coding, combining thematic and case-based analysis. Walshe (2017) found that prior to the lesson, students' understanding of sustainability was mostly informed by an environmental dimension (e.g. renewable energy sources), and rarely included social (e.g. housing) and economic (e.g. jobs) aspects. After the lesson, students emphasised social and economic aspects more, both in the drawings and in the questionnaire answers. Although some students reported feeling uncomfortable with the use of poetry in a geography class, others said they enjoyed how it challenged them. Overall, the author argues the use of an interdisciplinary approach enhanced and deepened students' engagement with the concept of sustainable development, leading to an affective as well as cognitive response from the students. Consequently, Walshe concludes interdisciplinary approaches provide a more holistic and pluralistic understanding of ESD concepts.

Radical Reform Space

Naming

There were 12 papers mapped onto the sub-section 'Naming' as they were all concerned with identifying the mechanisms and discourses that ensure Western epistemological dominance. There is a much higher proportion of GCE literature represented in this sub-section (10) (Pashby, 2015; Wang & Hoffman, 2016; Howard et al., 2018; Kadiwal & Durrani, 2018; Angyagre & Quainoo, 2019; Karsggard, 2019; Kim, 2019; Kim, 2020; Skårås et al. 2020; Woods & Kong, 2020), and only two studies from the field of ESE (Ideland & Malmberg, 2014; Eriksen, 2018). Some of the article in the section had a clear focus on curriculum and teaching resources (Ideland & Malmberg, 2014; Pashby, 2015; Wang & Hoffman, 2016; Angyagre & Quainoo, 2019; Karsggard, 2019; Kim, 2020), whilst others explored students' and teachers' perceptions of GCE and ESE (Kadiwal & Durrani,

2018; Eriksen, 2018; Howard et al., 2018; Kim, 2019; Skårås et al., 2020; Woods & King, 2020).

Focusing on the work of NGOs in schools, Karsgaard's (2019) analysed the potential for critical GCE in Literature lesson plans, developed by the Me to We organisation. The author developed a critical GCE framework, drawing on Slaughter's (2006) concept of 'humanitarian reading', which moves beyond liberal humanitarian responses by promoting a responsibility to respond with care and meaningful reflection, and Stone-Mediatore's (2013) notion of enlarged thought, which promotes an ethical engagement with marginalised readings by engaging with alternative perspectives. Data was collected from a unit focused on the Free the Children (1999) memoir, by Craig Kielburger (one of the Me to We's founders), particularly the unit's structure, aims, and teaching materials. Through a close reading of the unit, Karsgaard (2019) found the activities have the potential to promote critical discussions around global issues and the cultural and geo-politics of the text. However, this is not accomplished because the unit is framed through a liberal humanitarian framework that relies on superficial analysis and quick fixes, stepping over issues of complicity, recognition and participation. Additionally, the unit appears to work more effectively as a marketing tool for the organisation and has a strong emphasis on personal development. Consequently, the author recommends a reflexive practice in GCE, informed by the work of Andreotti and Souza (2008), in order to move beyond approaches that are restricted to the promotion of empathy and superficial solutions. The author also highlights Jefferess' (2012) concept of unhappiness as a valuable lesson', to move past understandings of GCE as fun and about self-centred activities.

In another study from Canada, Pashby (2015) critically unpacked the assumptions about, and tensions between, multicultural and GC education in the Alberta Social Studies curriculum. Drawing on Andreotti's (2010) distinction between post-as-after-modernity and post-as-interrogating-modernity, Pashby (2015) expands on Joshee's (2009) model of interrelated neoliberal discourses in Canadian multicultural education (the business case, equity of outcomes, equality as sameness, and social cohesion); liberal social justice (identity, rights-based, recognition, and redistribution); and on Richardson's (2008) GCE imaginaries (ecological and monopolar). Data in this study was collected from the Alberta Social Studies curriculum, and ten lesson plans from two different teaching websites were analysed through critical discourse analysis. Pashby (2015) found the curriculum was framed by

a post-as-after modernity approach that conflates neoliberal and liberal discourses. The liberal discourses open but also shut possibilities for critical constructions of multi-culturalism and GCE. The lesson plans were found to provide a stronger basis for a critical discussion of globalisation processes and global issues, but tensions inherent to the topics were still handled by promoting the acquisition of more knowledge on the topic. The author ends with a call for centring (rather than stepping over) 'tensions and contestations of rights, recognition and redistribution', in order to 'open up critical possibilities for understanding interconnections among global and local systems of inequalities' (p.361).

Angyagre and Quainoo (2019) also studied the Social Studies secondary school curriculum, but in Ghana. They focused on its potential to critically engage with local and global issues, whilst challenging colonial legacies of moral and nationalist approaches to citizenship, in a post-colonial and neoliberal context. The authors developed a critical analytical framework that is based on Andreotti's (2006) concept of critical GCE and UNESCO's (2015) dimensions of GCE (cognitive, socio-emotional and behavioural which they used to analyse the data). Data was collected from across five secondary schools in the Tamale Metropolis, through in-depth interviews (with 20 social studies teachers), focus groups (with 50 social studies students), class observations (five social studies session, one per school), and document analysis of the Social Studies curriculum. The authors found students and teachers were not familiar with the term GCE, and that attempts to interpret it led to an emphasis on transmission of intercultural competencies, missing questions of social justice. In relation to the inclusion of global issues in the curriculum, the authors found different opinions: students reported the curriculum included enough content on global issues and global local relations, whilst teachers found this inclusion inadequate. Teachers also lamented the lack of content about colonialism and its legacies in the Ghanian curriculum, and shared concerns around supporting such discussions when they did take place in the classroom. Finally, authors found a strong focus on the development of obedient citizens, rather than critical engagement with global and local issues. In light of these findings, the authors call for education systems in African countries to develop school curricula that responds to global pro-cesses but that is rooted in local knowledge and local concerns. They suggest one way this could be done by framing GCE within African epistemological and ontological frameworks.

In line with Angyagre and Quainoo's (2019) focus on approaches to citizenship, Wang and Hoffman (2016) explored Western conceptions of selfhood in 10 GCE subject-related topics secondary school curriculum in the USA. Understanding GC as a meaning-making space, the authors were concerned with how the concept of GC produces and frames individuals' narratives about themselves and their practices. The authors take on a postcolonial framework that traces the concept of global citizenship to European colonial missions of civilisation. Their methodological approach was framed by Brookfield's (1988) concept of 'critical reflection', and data was gathered from two secondary schools' GC curricula (on the topics of identity, diversity and human rights), and from resources available online (lesson plans, activities and class handouts or student blog posts). Wang and Hoffman found a prominent theme in the curricula was a universal "we". Characterised by a sense of belonging, agency and power to define global issues and affect change, the universal "we" disavows core cultural differences, and denies the "other" the right to define their own problems and solutions. In this way, curricula works both as a tool of empowerment (for those who fit the "we") and oppression (for those who do not). The authors also found a strong emphasis on self-transformation, based on students' exploration of their individual passions and skills, that ends up commodifying social justice. The authors concluded GCE needs to open spaces for critical reflection about the self, and the local and global structures that construct "our" identity as universal and marginalise other(s).

Also concerned with the distinctions between "us" and "them" constructed in the curriculum, Ideland and Malmberg (2014) explored Swedish primary and lower secondary school textbooks' content on sustainable development. They aimed to understand how global identities were discursively created. Informed by critical race theory and whiteness studies, the authors draw on McClintock's (1995) concept of Otherness machinery – the discursive strategies used to construct a 'normal' and an 'other' (p. 370), and Popkewitz's (2008) double gestures – the well-intended acts to include that lead to the exclusion of the other. The authors collected data from five textbooks (one from each stage for Science and Geography and one Secondary Civics textbooks) and analysed it through Foucauldian discourse analysis. They found textbooks reinforce a discourse of Swedish exceptionalism that is built through five dichotomies: tradition/civilisation; dirtiness/order; ignorance/morality; helped/helping. The textbooks construct an 'us' that is epistemologically and technologically advanced, living in clear, ordered, democratic societies, with a high moral code and in a position to help; and

a 'them' that is constructed as dependent to nature, lacking valuable knowledge and technology, living in dirty and corrupt societies, therefore in need of help. The authors argue this has repercussions in how white Swedish students construct themselves in relation to others, putting forward the suggestion textbooks are promoting an 'eco-certified racism' (p.382). Consequently, they call for a critical approach to ESD that deconstructs geopolitics of knowledge production.

More recently, Kim (2020) explored how dominant (Western) discourses frame the South Korean secondary geography curriculum. Drawing on Edward Said's Orientalism and Jacques Derrida's deconstruction, the author argues neoliberal and cosmopolitan approaches to GCE are implicated in a Western universalising ideology that marginalises other perspectives. Data was collected from the South Korean National Curriculum Reform and three World Geography textbooks and analysed through Foucauldian discourse analysis that was grounded in Winter's (2007, 2011, 2018) analytical framework: 1) finding totalising language; 2) writing thoughts about certain generalisations; 3) finding evidence for thoughts; generating and refining themes; producing the report (p. 101). Focusing on the concept of development and its discussion within geography topics such as 'urban', 'population' and 'globalisation', the author found two key themes within the policy discourse: a 'common humanity' that assumes Western universality and an 'economic rationality' that frames the type of knowledge and skills put forward in the policy through a neoliberal logic. In the textbooks, Kim (2020) encountered different discursive strategies that reinforce Western dominance, particularly through the rhetoric of modernity (universalising western conceptions of development and marginalising other perspectives), dichotomisation (definition of hierarchical binaries e.g. development/non-developed), discrimination (negative representation of non-westerns as passive, needy, or illiterate), and objectification (use of graphs and numerical indicators that depoliticise the content). Whilst acknowledging students actively engage with the curriculum, the author argues the discourses through which it is framed can have unconscious repercussions to the ways students construct as well as their attitude towards the other. Thus, Kim suggests further research should focus on teachers' and students' emotions and their sense of belonging/ exclusion as global citizens.

Kadiwal and Durrani (2018) analysed students' perceptions of citizenship at the intersections of class, religion, gender and ethnicity and the political and cultural factors affecting students' relationship to GCE, in the conflict-affected area of Karachi, Pakistan. From a post and decolonial theoretical

framework, the authors draw on the work of Gayatri Spivak and Ilan Kapoor to discuss modernity's disavowal of the violence colonialism, in order to create the development discourse and justify an imperial agenda. Drawing on decolonial theory, the author also highlights how dominant Western epistemologies construct poverty through a lack of resources and knowledge rather than as a consequence of colonialism/imperialism. The paper reports on data from a larger project that looked at the relationship between education and conflict and how students negotiate civic agency within a lack of social cohesion. Data was collected through participatory group discussions and interviews (with 19 students from a variety of socio-economic, religious and ethnic backgrounds, participated), document analysis of national educational policies, and available literature on the topic. Data was mapped onto Huberman and Miles' (2002) framework, of 'facilitators' and 'barriers' to a transformative approach to GCE. The authors found students' understanding of citizenship varied from critical to religious-based conceptions and was impacted by the intersection of conflict, education and social factors (class, school, residence area, gender, migration, ethnocentric, linguistic and religious backgrounds). Despite these differences, most students reported feeling wronged by political elites and excluded through economic and cultural factors. Students demanded accountability and showed a desire to be more politically active but lacked the support and preparation to do so. Students' perception of agency depended on their location, class and ethnic stratification. The authors argued that although students did not identify themselves as global citizens and found many barriers to their agency, they exercised global citizenship by asking for structural transformation of their socio-economic context. The authors suggest a reconceptualization of GCE approaches in Pakistan that historicises global and local problems and targets structural inequalities, as well as a redefinition of what constitutes national identity, moving beyond binaries of what counts as citizenship.

Also concerned with constructions of GC, Howard and colleagues (2018) focused on the ways in which GC is assimilated by students in a Ghanaian elite secondary school. Framed by a postcolonial approach, the authors drew on Frantz Fanon to the define the construction of blackness as an identity in opposition to the coloniser, and Homi Bhabha's concept of cultural hybridity to represent the encounter between colonised and coloniser. The research was concerned with a perceived tension in GCE around promoting a global common identity whilst accounting for individual/local dif-

ferences. The article reports on a larger multi-sited global ethnography research project, but the data presented refers to findings from the Ghanaian context. Data was collected through interviews (with four students, four teachers, the headmaster, principal, and guidance counsellor from the school), one in depth interview (with two alumni), class observations, events (such as all-school gatherings, sporting competitions and graduation) and faculty meetings. The authors found that understandings and practice of GCE is grounded on, and perpetuates, Western and colonial legacies of universal values that erase difference and reinforce the status quo. In this way, the school's GCE framework benefits wealthy students who do not have to deconstruct their privilege. Still, disadvantaged students have a critical understanding of how GC is portrayed in school. They conceptualise GC as a right held by everyone, rather as something to be acquired. Nonetheless, the common values approach taken in the school also means students do not learn about different (or their own) cultures, history and language. Instead, they are taught about European and Western culture. In light of these findings, the authors highlight the importance of an ecology of knowledges in the promotion of transformative GCE that goes beyond simply translating Western values and knowledge. They call for critical and anti-colonial approaches to GCE, that facilitate students in identifying and challenging homogenous (west-ern) narratives.

Also with a focus on the assimilation of GCE through the curriculum, Skåråas and colleagues (2020) critically analysed the discrepancies be-tween the aims and language used in the curriculum and the lived experi-ences of teachers and students, as well as the possibility of a GCE frame-work in the conflict affected context of South Sudan. Pointing the Western bias in conceptions of GCE, the authors argue that SDG 4.7 only addresses 'individuals that are the product of Western liberalism and capitalism' (p. 223) and fail to provide a platform for education work in conflict affected societies, in the Global South. In response to this critique, the authors develop a critical GCE framework, drawing largely on the work of Pashby (2012) to consider who is GCE for, who gets to be a global citizen and how we can mobilise decolonial approaches in the field. The study took a qualitative approach that involved seven secondary schools, across three geographical locations in South Sudan. Data was collected through semi-structured interviews (with 21 teachers), classroom observations, written essays from students, one focus group interview (with three of the 21 teachers), informal conversations with students, local citizens, education ministry officials, and tribal leaders. The authors found Western narratives of GC in the curriculum are

far from resembling the lived experiences of teachers. For example, the curriculum refers to global consciousness through relations between national and global citizenship. However, in practice, the tensions of living in a civil war highly restrict teachers' ability to make sense of national citizenship, making the bridge of national-global even more difficult. Whilst promoting it, the curriculum does not provide support for meaningful discussions about national and global citizenship, avoiding addressing the different ethnic groups in South Sudan society. When these issues come up in the classroom, teachers are not equipped to guide students, or even feel safe to engage in such discussions, because many teachers and students are involved in the civil war (often on opposite sides). The authors, therefore, conclude by arguing the curriculum employs a Western universal approach to global and national citizenship, irrelevant to the South Sudanese context. In this way, GCE cannot provide a framework for conflict resolution in education. Consequently, they call for a new model of GCE that apply to Global South contexts, specifically conflict affected societies.

Kim (2019) explored teachers' experiences of teaching GCE in South Korea. Building on a critique of neoliberalism and Eurocentrism/colonialism in education, the author developed a postcolonial/critical GCE framework, drawing on the work of Vanessa Andreotti. GCE is conceptualised in this study as emphasising the historical and structural causes of current unequal power relations, and the importance of centring alternative perspectives in combating Western supremacy. The study took a qualitative approach with data collected through semi-structured interviews with 30 Social Studies teachers and analysed through Saldaña's (2016) two coding cycles process. The author found teachers were discontent with the curriculum and teaching resources, referring to their Eurocentric approach that puts colonialism and its consequences in the past, whilst celebrating and perpetuating dominant Western narratives. Teachers were also concerned with the impact this has on the students, who they think are only interested in learning about Western knowledge and culture, dismissing non-Western perspectives. Teachers reported feeling constrained in their ability to engage with these issues by their institutions, time, resources and a lack of professional development. In order to combat some of this, teachers use resources from the internet and create support networks with other teachers teaching GCE. As a consequence of the findings, Kim (2019) calls for more cross-national comparative studies on GCE policy and practice with a focus on grassroots practice of resistance to colonial and neoliberal discourses in education institutions. The author also argues teachers should be placed at the centre of

the design and creation of GCE resources, and more time and space should be allowed for teachers to develop, experiment and reflect on their practice.

Understanding GCE as a 'homogenising abstraction', built on neoliberal and neocolonial tenents, Woods and Kong (2020, p. 139) were interested not in how it is promoted or taught, but in how it gets subverted. The paper presents findings from a larger study that examined international education in various cities in Southern and Eastern China, where the students are mostly expatriate. It took a qualitative approach, and data was collected through in-depth interviews with (42 senior administrators) and small groups discussions (with a total of 35 students, 17 administration staff, 14 teachers and ten parents, across three schools in China). Data was analysed and mapped onto Gordon and colleagues' (2000) categorisation of school spaces: mental/cultural space (the 'official' school), social space (the 'informal' school) and the physical space (the 'non-school' school). The authors found that the school is highly committed to promoting GCE and creating an inclusive culture. However, they unpack approaches of the 'official' school, arguing it mirrors paradoxes in GCE: it eradicates, whilst celebrating, difference; and it is seemingly opened to many cultures, but shuts down different versions of inclusion. The strong emphasis on doing away with difference appears to force students into cultural compromises that go against their own religious beliefs. Additionally, the cultural inclusiveness appears to resemble rather an assimilation into Western cultural identity. With regards to 'informal' spaces, the authors found that international schools do not account for how different cultures respond to diversity, which they also relate to an issue in GCE, as 'it assumes that students of different nationalities, and of different ethno-cultural backgrounds will respond to diversity in the same way' (p. 144). It appears that, although the 'official' school strongly emphasises commonalities, students emphasise differences and mainly gather in groups based on ethnic identities. 'Non-school' spaces seem to reinforce informal ones, and there are marked tensions between the schools' ethos and parents' opinions about how the school should run. Consequently, the authors argue there is a fundamental misalignment between the 'official school' space (and its desire to implement GCE values) and the other 'informal' and 'non-school' spaces response to GCE (which undermine the possibilities for it to be successful on the other). As such, they call for a stronger dialogue between school and the school community.

Eriksen (2018) explored the impact of dominant narratives about Norway in framing the teaching of sustainability issues in the classroom, and

how these narratives reinforce a distinction between "us" and "them". The author aimed to contribute to current literature by illustrating how decolonial theoretical approaches can move forward discussions about sustainability and global social justice. Consequently, the author developed a theoretical framework that takes up Eurocentrism, Nordic exceptionalism and technological optimism, and centres the role of knowledge in decolonial approaches to education. From a critical theory approach, the author carries out a case study in a school in South-Eastern Norway. Data was collected through classroom observations (of a year 7 Social Studies lesson), document analysis (of learning materials), semi-structured interviews (with the class teacher and three pre-service teachers being mentored by him at the time) and a focus group interview (with six students). These data sets were analysed through narrative analysis. Eriksen found the idea of a 'common world' in the social studies curriculum is accomplished through nationalist and racist discourses. Specifically, she found a strong framing of ideas of Norwegian exceptionalism (as an advanced and resourceful nation) and technological optimism (European universal knowledge as the solution to sustainability issues). Approaches to teaching attempt to be neutral and plural by introducing conflicting views on the same topic. However, this is done through a 'realistic' perspective, and without making students feel 'guilty' about their chosen lifestyles. The author also found the class teacher was lacking time and struggling with institutional constraints, whilst also being concerned with the emotional impact of class discussions on students. On the other hand, students seemed keen to engage with serious issues and appeared highly aware of their relevance. The author concludes decolonial approaches to teaching have the potential to challenge universal dominant narratives around knowledge and knowledge production, and offer a critical and historical understanding of systemic causes to sustainability issues.

Extending

Four papers mapped onto the 'Extending' sub-section. Having acknowledged the limits imposed by Western epistemology, the studies in this subsection work to extend the modern/colonial system. Two of the papers in this section are from the field of ESE (Sund, 2015; Ryan & Ferreira, 2019) and two combine the fields of ESE and GCE, being part of the same study (Sund & Pashby, 2018; Pashby & Sund, 2020). The literature in this section is mostly concerned with practice, accessed through interviews and discussions with teachers.

Ryan and Ferreira (2019) were concerned with the power of discourse in framing practice. They explored teachers' and support workers' (who supported the facilitation of teaching in the classroom) reflections about the inclusion of epistemological pluralism in the curriculum at a South African Eco-School. Drawing on the work of Foucault, the authors understand Eco-Schools as a discursive field, constructed through competing and conflicting discourses, and framed by a global (Western) regime of truth that defines what counts as valid/non-valid knowledge. Nevertheless, Ryan and Ferreira (2019) also highlight the proactive role of eco-schools as 'strongly underpinned by local justice discourses that promote the inclusion and re-appropriation of indigenous knowledges' (p. 4). Data was collected through document analysis (of 22 Eco-School curriculum resources), semi-structured interviews and focus groups (with a total sample of five teachers and 15 Eco-Schools support workers). The authors analysed the data through a post-colonial framework that centres the rela-tionship between power and knowledge, and the marginalisation of Indigenous knowledges by modern scientific discourses. Ryan and Ferreira also unpack how colonial power frames teachers' perceptions of themselves and their work, and how support workers were challenged in including plural perspectives in classes. They tried to retain the authenticity of what are incommensurable epistemologies, but this meant they had to go through great lengths to avoid situations in which Indigenous knowledges were opposed to scientific. The participants reported fearing causing offense, and never openly addressed conflicting perspectives. The authors also found teachers and support workers were not supported by the curriculum which constructed Indigenous knowledges as environmentally friendly and sustainable, but also static and of the past, validated only through scientific knowledge. Ryan and Ferreira (2019) conclude that efforts to re-appropriate knowledge are essential, but have to be based on more than binary distinctions between scientific and Indigenous knowledges, which are already framed through dominant Western ways of knowing.

Velempini and colleagues (2018) explored the extent to which local environmental knowledge is integrated in the curriculum of a secondary school in the Okavango Delta of Botswana. The authors' aim was to evaluate the potential of place-based education in recentring traditional ways of knowing and resisting colonial legacies around knowledge production in schools. Taking an Indigenous research methodology, which frames research as resistance to the reproduction of colonial legacies. The authors collected data from a secondary school classroom, through semi-structured

interviews (with community members, teachers and educational authorities), participant observations (in a class of 34 students), document analysis (of lesson plans, textbooks, government papers) and academic literature related to EE in Botswana. Data was analysed in two phases, first line by line manual analysis and then coding. The authors found teachers are keen to include local environmental knowledge in the curriculum, and they do so by making reference to local place names and local flora and fauna in their lessons, planning sessions that focus on the management of environmental resources in the region, and celebrating local, traditional activities. However, the authors argue the inclusion of local knowledges was often based on isolated acts in specific lessons. They found that teachers were challenged in their practice by the lack of resources and teacher training on including Indigenous perspectives in the curriculum. In light of these findings, the authors argue for an interdisciplinary, thematic and project-based approach to EE. They also highlight the need for teacher training and professional development, with an emphasis on action research, in order to promote a more reflective approach to integrating local knowledges. Finally, the authors call for local authorities to provide schools with resources needed for school trips and the use of school grounds as educational sites.

Sund (2015) investigated Swedish teachers' reflections on their approaches to teaching global sustainability issues. Drawing on Spivak and Mignolo, the author develops a postcolonial framework that relates global development issues to colonialism, centres the geo-politics of knowledge in producing a Global South and Global North, and emphasises the complexity involved in ethical engagements with ESE. Data was collected through interviews (with six secondary school teachers with experience in international professional development) and analysed through an abductive approach, drawing on Alvesson and Sköldberg (2009). The data was mapped onto an analytical framework that sets out four key aspects of global sustainability issues in ESE teaching (contextual-historical, affective, political and epistemological), adapted from Andreotti's (2012) HEADSUP tool. The author found teachers brought the complexity of global issues to their reflections on their teaching practice. They considered all four dimensions of global sustainability issues teaching, high-lighting the importance of historicising the topic (contextual-historical), sustaining students' passion and solidarity towards others (affective), eliciting alternative perspectives and reflecting on ways in which students can take action (political). They also considered the importance of relativising one's perspective and challenging epistemological assumptions (epistemological). Acknowledging teachers'

training and experience on the topic, Sund (2015) contends the relevance of the study is in the reflections provided by teachers' ability to complexify global issues, and what they focus on when teaching the topic. In order to stay true to the theme of complexity, the author refrains from setting out recommendations for practice.

Following this work, Sund and Pashby (2018) explored possibilities and challenges in global issues pedagogy and supported teachers to reflect on their practice, aiming to 'take up rather than step over issues of complexity and power relations' (p. 10). Developing a critical approach to ESE and GCE, the authors draw on decolonial theory that promotes historical approaches and unpacks the relation between education and colonisation. The research collected data from two secondary schools in Sweden through audio-recording of interviews (with five teachers) and video re-cordings of their classroom teaching. There were two stages of interviews with the teachers: an initial one where inclusion of global issues in their teaching was discussed, and another after the classroom recordings where they reflected on the sessions. Teachers' reflections were supported by the analytical framework introduced above, developed by Sund (2015). The authors found teaching about global issues is influenced by a variety of factors such as curricular context, teachers' beliefs about education, their previous experience and assumptions, as well as their feeling about and experience of global issues. Teachers were able to draw on each dimension when reflecting about classroom practice, and showed a commitment to ethical engagement with global issues, without the need to resolve tensions and find an agreed solution. Additionally, there was evidence students did not 'feel disempowered by the doom and gloom future, because they ultimately understood the importance of the critical approach' (p. 8-9). Students also showed an understanding of the complexity involved in such discussions and approached them not only through environmental but also social justice concerns. Still, the research found there is discomfort in digging deeper and centring issues of complicity with harmful systems of power. Consequently, the authors highlight the importance of the classroom teaching in ethical engagements with global issues, but also reinforce the need to support the facilitation of these difficult discussions.

Pashby and Sund (2020, see also Pashby, Sund & Corcoran, 2019) expand on the work reported above, are concerned with the promotion of deep ethical engagements with global issues in secondary school classrooms Northern European contexts. Taking a decolonial approach that draws on

Mignolo (2011), they argue western discourses of development and technology are built on violent forms of oppression and exploitation. They also caution against what Andreotti (2014) has called 'modernity's trick', when Western efforts to help others end up recentring Western dominance. The empirical data presented emerged from a larger project, with three stages: 1) development and delivery of a workshop for teachers discussing critical approaches to global issues and introducing Andreotti's (2012) HEADSUP tool; 2) classroom observations (of lessons applying HEADS UP) and follow up reflection with teachers; and 3) drafting, re-viewing, piloting, and publishing online a resource to support teacher practice. Importantly, this project was not only concerned with contributing to academic literature but also with supporting teaching practice. With the aim to bridge theory and praxis, the authors used Andreotti's (2012) HEADSUP as a tool to support teachers in engaging ethically with global issues in the classroom. Pashby and Sund (2020) report on discussions from the workshop (in stage 1) and a resource development meeting (part of stage 3). The workshops took place in Sweden, Finland and England (specifically Stockholm, Birmingham, Manchester, London and Helsinki), with the involvement of 26 teachers in total, who taught on a variety of subjects (social studies, religious education and natural science). In the resource development meeting, five of the workshop participants from England were present. The discussions were transcribed and then analysed through thematic analysis.

Pashby and Sund (2020) found that teachers were aware that charity-based approaches to development simplified and depoliticised global issues and were keen to use HEADSUP as a tool to support deeper engagements. However, they also reported it was challenging to move beyond charity-based approaches within their school contexts. Pashby and Sund also found the education policy context and pedagogical culture framed teachers' understanding and approaches to practice. The authors argue using the HEADSUP tool offered a space for decolonial thinking, where teachers were able to engage students in critical and nuanced discussions, identify and critically analyse mainstream perspectives. However, it appears that the concern with identifying actions or solving tensions may also foreclose the space opened by the HEADSUP tool. Instead, the au-thors highlight the decolonial possibilities that can be opened if developing a 'solution' is decentred as and outcome, and instead teachers stay with students in 'these moments that enable the cultivation of ethics of ambiguity' (p. 80).

Mapping the Empirical Literature

Key Themes

Empirical conversations in the fields of ESE and GCE appear to span largely across the Soft and Radical Reform Spaces (please see figure 3). It seems critiques of Western modernity emerging from this literature are mainly situated within a Radical-Reform Space, acknowledging epistemological dominance, whilst the responses vary across Soft and Radical spaces and Soft-Radical and Radical-Beyond interspaces. Critiques of Western modernity in the literature suggest that the curriculum and teaching resources in ESE and GCE:

- are framed by, and privilege, universal Western perspectives (e.g. Truong-White & McLean, 2015; Wang & Hoffman, 2016) and liberal and neoliberal approaches that foreclose critical engagements and dismiss issues of complicity, recognition, participation (Pashby, 2015; Karsgaard, 2019) as well as colonial legacies (Angyare & Quainoo, 2019);
- lead to superficial analysis, geared toward quick fixes (Karsgaard, 2019), and socialise students into the current unequal global structures of power, instead of promoting structural change (Angyagri & Quainoo, 2019);
- place a strong emphasis on individual responsibility (e.g. Truong-White & McLean, 2015) and self-development (e.g. Wang & Hoffman, 2016; Karsgaard, 2019);
- construct a hierarchical division between "us" in the Global North and "them" in the Global South (e.g. Ideland & Malmberg, 2014; Wang &Hoffman, 2014; Kim, 2020);
- are often delivered through universal Western liberal values that promote assimilation into Western culture (Howard et al., 2018; Kim, 2019; Woods and Kong, 2020) and can thus fail to engage the rich diversity of teachers and students' identities, experiences and knowledges (Kadiwal & Durrani, 2018; Velempini et al., 2018; Skårås et al., 2020);
- integrate and re-appropriate local/non-Western knowledges through add-on approaches that do not challenge Western dominance (Velempini et al, 2018; Ryan & Ferreira, 2019).

- do not make sense in Global South contexts (Angyare & Quainoo, 2019).

Rooted in ESE and GCE curriculum and practice, the responses to modernity's harmful consequences emerging from the empirical literature appear to emphasise both methodological and epistemological issues and questions, often without a clear division between the two. Some recommendations are more clearly methodological, and include for example calls for resourcing teachers with the required time, training and resources to develop more critical and in depth ESE and GCE learning activities (e.g. Velempini et al., 2018), and opening up spaces for teachers to critically reflect on their practice (Reilly & Niens, 2014; Kim, 2019). Others fall in the intersection between Soft-Radical Reform, emphasising responses that combine both methodological and epistemological dimensions. For example, the literature suggests:

- the use of pedagogical tools to anchor discussions and help make visible systems of oppression implicated in coloniality (i.e. HEADSUP or an adaptation) and promote nuanced discussions about global issues among teachers (Pashby & Sund, 2020);
- the promotion of critical approaches to teaching that historicise global issues and structural inequalities (Kadiwal & Durrani, 2018; Gyberg et al., 2020);
- support for teachers and students to critically engage with global issues (Truong-White & McLean, 2015) through a reflexive practice (Angyagri & Quainoo, 2019; Karsgaard, 2019) that centres tensions and controversies (Pashby, 2015), and moves beyond feel good activities (Karsgaard, 2019);
- support for teachers to critically engage with global issues (Reilly & Niens, 2014), recognising and facilitating discussions about complicity in global power structures (Sund &Pashby, 2018);
- inclusion of teachers in the design and implementation of research about ESE and GCE teaching (Kim, 2019).

Some of the recommendations, however, appear more strongly geared up towards issues around knowledge production in schools. For example, the literature recommends attention is payed not only to the way meaningful engagements towards global issues are influenced not only by teachers' approach (Gyberg et al., 2020), but also by the way schools and non-school environments construct ESE and GCE (e.g. through the curriculum) (Reilly & Niens, 2014; Howard et al., 2018; Ryan & Ferreira, 2019; Skårås et al.

2020: Woods & Kong, 2020); and that students' understanding of GCE is not only influenced by their education, but also by a variety of social, cultural and political factors (Howard et al., 2018; Kadiwal & Durrani, 2018). Some of the literature in this section also calls attention to the foreclosure of critical potential in classroom discussions, due to a focus on solving tensions and presenting solutions to students. This concern appears, at least partly, related to teachers being worried about transferring negative emotions to students, although students appear enthusiastic about (and perhaps already are) engaging with these discussions (Eriksen, 2018; Pashby & Sund, 2020).

Other epistemological responses emphasise the importance of grassroots work to reconceptualise ESE and GCE in ways that meaningfully engage with local knowledges, identities and experiences (Howard et al., 2018; Kadiwal & Durrani, 2018; Ryan & Ferreira, 2019; Skårås et al., 2020); and call for engagement and stronger dialogue between school and school community (Woods & Kong, 2020). Moving towards more ontological questions, Walshe (2017) explores the possibilities of affective pedagogical approaches to teaching as a way to complexify understandings of global issues. Still, this possibility is considered through methodological (i.e. classroom activities) and epistemological (i.e. multi-disciplinarily) questions.

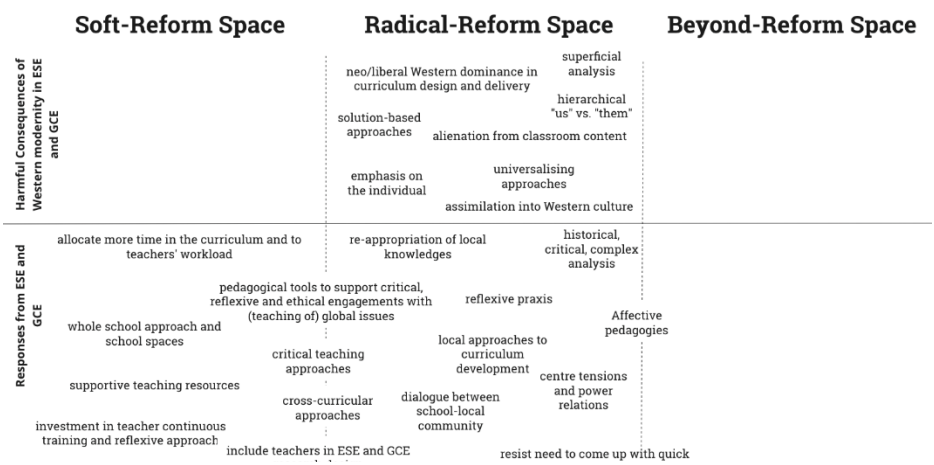

Figure 3Key themes from empirical literature mapped onto Andreotti and colleagues' (2015) social cartography

Individual Contributions

When mapped onto Andreotti and colleagues' (2015) social cartography, the empirical literature (figure 4) provides a very different picture when compared to the theoretical mapping. There is a clear shift to the left of the cartography, with the emergence of an interspace between the Soft and Radical-Reform, and confluence of most papers in the Radical-Reform Space, which were distinguishing by the additional sub-sections 'Naming' and 'Extending'. Papers in the intersection between Soft-Radical Reform spaces provide a critical theoretical grounding that is concerned with knowledge production, particularly the need to politicise and complexify teaching about global issues, but there is no acknowledgement of Western epistemological dominance. These studies are perhaps more in line with the large part of the literature in both GCE and ESE that is engaged in Eurocentric critiques of Eurocentrism; and that, although recognises systemic issues within the system, is limited in being able to challenge them.

Most of the empirical papers were mapped onto the Radical-Reform space, acknowledging Western epistemological dominance, and providing responses related to the way we produce knowledge in both fields. However, there are clear distinctions between the overall aims of the papers mapped onto this space. It appears that a large portion (12) of the articles has a 'naming' purpose, and is primarily focused on identifying and uncovering the modern/colonial imaginary in ESE and GCE. The other papers mapped to the Radical-Reform interspace, having targeted the modern/colonial frame, are more concerned with 'extending' it, by developing plural approaches that focus on the inclusion of local knowledges in the curriculum (Velempini et al., 2018; Ryan & Ferreira, 2019), and the development of pedagogical tools that allow for more complex and ethical engagements with global issues in the classroom (Sund, 2015; Sund & Pashby, 2018; Pashby & Sund, 2020).

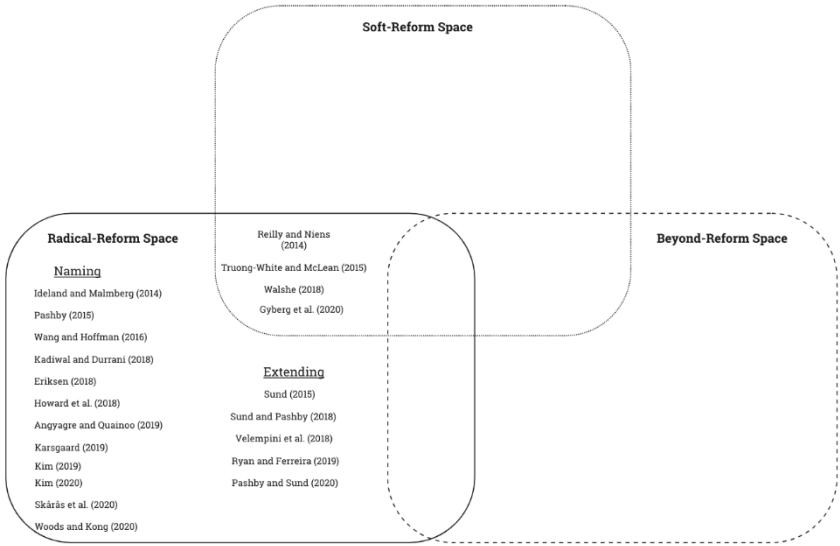

Figure 4Empirical papers mapped onto Andreotti and colleagues' (2015) social cartography

Conclusion

The mapping exercise showed that theoretical critiques of Western modernity from post, decolonial and a non-Western perspectives are working across Radical and Beyond-Reform spaces of enunciation, with a strong confluence of papers in the Radical-Beyond Reform interspace, and some emerging literature working within the Beyond-Reform Space. Empirical literature responses emerge from a Soft-Radical intersection to a Radical-Reform Space, which has the highest confluence of empirical papers. The review has not aimed to deem one response as better than the other, but highlight the possibilities and limitations across them.

Theoretical literature mapped onto the Radical-Reform space provides an important critique of Western control over knowledge, sets up the importance of historical and situated approaches in the field, and outlines an ethics for teaching and learning about global issues based on an ethical commitment to other generations (past, present and future). However, the work

in this space is limited by a reliance on liberal modern concepts and theoretical approaches, which seem to lead to largely methodological responses. Research mapped onto the Radical-Beyond Reform interspace starts from an acknowledgment of Western onto-epistemological dominance, and targets the discursive and material processes sustaining it. Papers in this interspace suggest knowledge-based responses that might support counter-hegemonic practices to decentre Western onto-epistemology in ESE and GCE. Some of the articles in this section also signal toward other forms of ethical engagements that are affective and embodied, rather than just intellectual. Still, as literature at the intersection between the Radical-Beyond reform spaces gestures towards other ways of knowing and being, it is limited in offering examples of what these alternatives might look like. Work mapped onto the Beyond-Reform Space shows the limitations of transformative approaches from within the modern/colonial imaginary, and attempts to put forward ways for being otherwise that are based on 'other' onto-epistemologies, or a re-orientation of desires. These responses aim to move beyond an over-emphasis on knowledge production processes, always already famed by Western ontology. Work within a Beyond-Reform space can, however, become co-opted by attempts to reform the system from within and end up getting 'hacked' by it. Literature in this space is also still emerging and tentative in its advances.

The mapping of empirical papers expands across intersections between Soft-Radical and Radical Reform spaces, illustrating the complexities of targeting and challenging Western modernity within the constraints inherent to carrying out research within institutions strongly embedded in the modern/colonial imaginary. Empirical papers mapping onto the Soft-Radical Reform interspace set up the importance of critical approaches in the fields of ESE and GCE that take up complexities and tensions in teaching about global issues. Research concerned with 'Naming' processes that sustain epistemological dominance, identified the ways in which dominant frames limit understandings of ESE and GCE and the potential for critical teaching approaches and alternatives. Empirical papers that mapped onto the Radical sub-space 'Extending' provide insightful findings on the possibilities and challenges emerging from efforts to pluralise and complexify teaching about global issues. Although no paper mapped onto the Beyond-Reform Space, empirical literature in the Radical-Reform Space demonstrates important moves in terms of pushing epistemological critiques of Western modernity that might allow to extend the system. Still, it appears a clear next step for empirical research would be to more explicitly engage with ontological

questions, and explore the development of pedagogies that support a disinvestment from modernity's frame, opening up spaces for other ways of being, or re-existence (Mignolo & Walsh, 2018). This is not instead of research involved in identifying and challenging epistemological dominance, but in addition to.

The shift in the empirical literature to Soft and Radical-reform spaces as well as the Soft-Beyond Reform intersection is partly unsurprising, considering the constraints presented by the move to engagements with schools, which are social institutions deeply embedded in the modern/colonial system. This has been recently acknowledged by Pashby, da Costa and Sund (2020) who recognise that whilst their research is positioned within post and decolonial theoretical framework, their empirical work often requires strategically engaging in an intersection with more liberal humanist approaches, as a starting point for conversations in schools. Similarly, Escobar (2020) highlights that some places of enunciation can be limiting, but are often a necessity of engagement with the social world, and can be used strategically to advance decolonial projects.

Overall, the literature reviewed has strongly taken up the dominance of Western ontology and epistemology within conceptualisations of GCE and ESE, the school curriculum, teaching resources and practice. The research reviewed shows that, in the Global North, GCE and ESE are framed through a modern liberal and neoliberal approach that forecloses critical conversations and promotes superficial, and solution-based, engagements with global issues. This is also the case in Global South contexts, although with the added consequence of GCE and ESE being abstracted from the place where it is being taught and alienating both teachers and students. Literature across geo-political contexts shows Western modernity continues to frame and restrict the stories told in ESE and GCE curricula and resources, but that teachers and students can be proactive in adapting and subverting universal approaches to global issues.

There are interesting discussions emerging from this review that take up and challenge taken for granted principles of critical approaches in ESE and GCE. One of these core assumptions in both fields is the emphasis on 'critical thinking' as a way to deal (and even solve) the complexities, tensions and uncertainties inherent to global issues. Dreamson (2018) makes an important contribution in situating critical thinking within a Western cultural frame, which defines and directly informs our possibilities for analysis. Another key argument emerging from the literature is the contestation of ped-

agogical approaches that are concerned with formulating solutions and promoting action. Many authors (e.g. Blenkinsop et al., 2017; Savelyeva, 2017; Pashby & Sund, 2020; Wang & Hoffman, 2020) have attempted to disrupt this by emphasising the importance of pausing and 'listening' first (Blenkinsop et al., 2017), and meaningfully engage with the tensions and complexities of global issues (Pashby & Sund, 2020). This process is not meant to be conceived as fun or entertaining. In fact, Karsgaard (2019) and Stein and colleagues (2020) argue that discomfort is inevitably a part of the process, despite being a concern reported by teachers in several of the empirical studies. Wang (2017) and Stein and colleagues (2020) also interrupt responses to Western modernity based solely on knowledge production, arguing the accumulation of more knowledge still does not effectively address the roots of our current global crises. Instead, Stein and colleagues (2020) argue for work in the field that supports students to disinvest from the frame of modernity. Finally, Sund and Pashby (2020) provide an important contribution to discussions in ESE, by taking up Posthuman approaches, which appear to provide ontological alternatives to Western modernity, but fail to target Western ontological dominance and universal conceptions of the human, and end up extending, rather than decentring it.

To summarise, the articles reviewed seem to show that targeting Western modernity in the fields of ESE and GCE requires:

1. approaches that *complexify* understanding and promote critical engagements with global issues, addressing tensions and conflicts embedded in them;
2. a *pluriversal* approach that not only acknowledges a multiplicity of different perspectives, but also targets and works to *delink* from the dominant frame of Western modernity;
3. affective and embodied responses that challenge Western dualist ontology;
4. approaches that trace and re-orient desires and investments in Western modernity, as well as the denials these investments require;
5. relational ontologies that acknowledge the entanglement between human and other-than-human as well as knowledge and praxis;
6. resources for teachers and students to support the difficult and, at times, uncomfortable process of deeply and ethically engaging with our complicit in causing and perpetuating modernity's violences, and the uncertainties of working for change without guarantees;
7. resources to support teachers and students to continuously identify and decentre the Western onto-epistemological frame;

8. training for teachers to support critical engagements with students and their own critically reflexive practice;
9. situated approaches, where ESE and GCE is conceptualised through grassroots processes, responding to contextual realities;
10. development of curricular and teaching resources in consultation with teachers and the school community.

This review does not mean to suggest that one approach is able to address all of these points. Instead, it hopes these principles might inform a pluriversality of approaches in ESE and GCE that will likely start from different places of enunciation and centre different questions/answers. Targeting and delinking from the modern/colonial imaginary is messy, at times contradictory, work (Andreotti et al., 2015), and will require strategic approaches that might move in, out and across Soft, Radical and Beyond-Reform spaces. This is not to say that any response will do, but that – as showed by the literature reviewed in this report, addressing Western modernity requires context-based approaches that target the modern/colonial frame, and are clear about the possibilities and limitations offered by their place of enunciation.

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