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ONE PLANET RESIDENCY: PERSPECTIVES ON GLOBALISATION AND EDUCATION

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Sisyphus — Journal of Education aims to be a place for debate on political, social, economic, cultural, historical, curricular and organizational aspects of education. It pursues an extensive research agenda, embracing the opening of new conceptual positions and criteria according to present tendencies or challenges within the global educational arena.

The journal publishes papers displaying original researches — theoretical studies and empiric analysis — and expressing a wide variety of methods, in order to encourage the submission of both innovative and provocative work based on different orientations, including political ones. Consequently, it does not stand by any particular paradigm; on the contrary, it seeks to promote the possibility of multiple approaches. The editors will look for articles in a wide range of academic disciplines, searching for both clear and significant contributions to the understanding of educational processes. They will accept papers submitted by researchers, scholars, administrative employees, teachers, students, and well-informed observers of the educational field and correlative domains. Additionally, the journal will encourage and accept proposals embodying unconventional elements, such as photographic essays and artistic creations.

One Planet Residency: Perspectives on Globalisation and Education

Introduction by *Laura Colucci-Gray & Donald Gray* (Editors)

We are pleased to be writing the editorial for this special issue of Sisyphus "One Planet Residency: Perspectives on Globalisation and Education"; as we are approaching the end of the year 2014, the Earth has completed another revolution around the sun.

Never before humanity has been so literally "in touch" with the Earth as a global space. From communication technology to travel, consumption of goods and production of waste, humanity has effectively claimed ownership of the Earth's ecosystems and resources. As Steffen, Grinewald, Crutzen and McNeill (2011) have come to define this geological epoch, we now live in the era of Anthropocene, a time characterised by profound alteration of the bio-geochemical cycles:

> Conversion of natural ecosystems to human-dominated landscapes has been pervasive around the world; the increase in reactive nitrogen in the environment, arising from human fixation of atmospheric nitrogen for fertilizer, has been dramatic; and the world is likely entering its sixth great extinction event and the first caused by a biological species (p. 850).

As never before, the ability of human beings to describe and manipulate the Earth's energy and material flows has been so great to have significantly

altered the social and biological processes sustaining life on the Earth. However as Steffen et al. (2011) maintain, the recognition of the role of human species as agents of global, bio-physical changes come with greater responsibilities which perhaps unsurprisingly, our current social systems are struggling to meet. Humanity finds itself facing an unprecedented scenario located largely outside the range of past experience. The sheer complexity of the Earth functioning systems challenges common notions of predictability or what may count as reliable knowledge. What we handle instead are "models" and "scenarios"; which are highly dependent upon cultural and value-based assumptions about what might be acceptable levels of risk or uncertainty (Rockström et al., 2009).

The researchers who have described the epoch of the Anthropocene are concerned about the role of the public in such global transition. The concept of Anthropocene and the debates about its origins and significance have been confined almost entirely to the research community. Will the public be willing to accept it as a construct? And most importantly, what sort of considerations will be taken into account in making decisions which will be high stakes and contested? The new scenarios ahead are set to challenge existing modes of living. We are set upon a trajectory of transformation and change that is so substantial that most of consolidated knowledge and deeply held beliefs about how the world operates may become outdated in a non-distant future.

As Descola (2012) interestingly puts it, the modes of energy production and consumption inevitably reflect the relations that any society establishes with humans and non-humans forms. Through "relational modes" or "schemas" the types of interaction between humans can be replicated at different levels between humans and nature and they become established as cultural norms. In the particular case of Western societies, the "need" imperative has given rise to an economy of demand, predation and exploitation of resources to fuel a particular form of economic development. As a biological species we have socialised ourselves into a model of consumption (Dale & Shove, 2000) which regulates our personal interactions from the simpler forms of digital communication to the more sophisticated aspects of education and general imagination (McGregor, 2014). The ability to frame and understand every day, physical and practical actions as part of broader cultural discourses yields important implications for education.

Changing from a pattern of predation to a pattern of mutuality and co-existence requires developing a profound understanding of what it means to be human: biologically, we are wired up with the cycles of the bio-geo-chem-

ical elements (Carbon, Nitrogen, Oxygen etc.) which are recycled and transferred across the organic and the inorganic realms of the Earth, sustaining the living communities and storing toxic elements. Indeed through the act of living, breathing, feeding, our bodies become the means through which we enter in communication with Life as a whole, being both and at the same time the transient points of accumulation and release of the global flows of energy and materials, in a relationship of exchange and interdependence with Gaia.

A view of humanity that is not separate from the global context, in relationship and in connection with a range of living and non-living processes challenges traditional views of the Earth. From a view which confines and separates we can move to a view which sees subjects and objects in-relation, tangled in stories of co-transformation. This view on being human is the view of process and change, or phronesis, an experience of living which is embedded in time and place (Merleau-Ponty, 1962; Tilley, 2007), and the world being observed cannot be separated from the observer. As indicated by Ingold, "the ways in which we act and interact with materials should be taken seriously, since it is from them that everything is made" (2011, p. 31), and this includes ourselves. Indeed as Ingold continues, the properties of materials are not attributes which can be categorised, confined and defined, but histories, from which our narratives of development unfold.

The implications of this view are ethically and educationally substantial: acquiring one planet residency means recognising that reciprocity regulates our lives. However that we are not able to perceive the full extent of the impact and consequences of our actions in everyday life, begs for an interrogation and understanding of the role of the educational processes. Educational practitioners and researchers alike are confronted by a set of important and taxing questions: How far does education take account of perspective of inclusion and co-existence with other human communities and living forms on the Planet that we all share? In what way does an understanding of inclusive, equitable and sustainable relationships raise awareness of common assumptions about what the kind of education that is desirable and required?

The contributions included in this special issue of Sisyphus engage with such examination by looking closely at the tacit assumptions that are regulating social and educational systems; the extent to which such assumptions have contributed to the sedimentation of a worldview which has proved to be unsustainable and provide some suggestions for moving away from a destructive path towards new and desirable scenarios. The five papers contained in this issue

bring together perspectives from the North and the South of the world; interrogate different aspects of the relationship between globalisation and education and altogether, provide an informative overview of current and topical reflections on education for a "one planet residency".

In order of appearance, the special issue opens with the paper authored by Donald Gray and Laura Colucci-Gray who describe the role played by science and technology in shaping common views of nature in the West and the "integrative schemata" (Descola, 2012) according to which a powerful techno-scientific enterprise is elevated as the means for fuelling economic growth. The authors deconstruct the epistemological and ethical assumptions governing techno-science and argue for a more sophisticated understanding of the complex ways through which humans can enter in relationship with the world. A position of humility is advocated as a means to develop a form of community-based science which takes the Earth as the ultimate place for ensuring that everyone has the opportunity to lead a life of value. Such a shift is based upon the idea of respectful dialogue with other humans and non-human life forms.

Vanessa Andreotti develops further the range of "integrative schemata" or "discourses" which permeate current models of unsustainable development. She illustrates the implications of dominant views of development and progress as linear trajectories managed by technocratic systems seeking to manipulate and to normalise, erasing surprise, and with it, also the possibility of participation and dissent. Andreotti brings forth the role of critical literacy as a means to recognise how different decisions serve particular agendas and values, thus revealing the need to disclose suppressed knowledge, languages and subjectivities. In addition, critical literacy has also a creative role, enabling people to ask questions about how could life projects develop otherwise, according to alternative imaginations which may develop from other narrative and linguistic roots, the "forgotten" or "silenced" ones.

Moving to the realm of education, Walter Humes further develops the power of critical literacy for interrogating the impact of globalisation on education, by disclosing the narratives of power, control and domination which have penetrated the structures of educational systems worldwide. His contribution stresses the importance of recognising the influence of narratives on shaping behaviours and expectations thus seriously questioning the ability of educationalists around the world to re-think the aims and purposes of education.

Donald Gillies deepens such reflection by providing a detailed account of the historical and cultural basis of the origin of the concept of "social capital"

which has become an established form of thought in education. Gillies skilfully retraces the concept to its early origins, the time of the great economic and technological acceleration in the United States which incidentally, Steffen et al. (2011) take as the starting date and driving force of the Anthropocene. In Gillies's paper we see the power of narratives at work: the concept of social capital has clear roots origins in the neoliberal mentality which promoted the ongoing accumulation of goods and services to sustain a materialist society striving for infinite growth. The concept of social capital is revealing of the narratives which have permeated educational systems worldwide and which elected the educational systems as the driving force of capitalist, post-industrial economy. A transition towards a one planet residency requires shedding acquired concepts and forms of thoughts. New narratives require new languages.

Finally, Ana Paula Caetano and Isabel Freire illustrate three projects with distinct methodologies, each one advocating the values of participation, interdependency and responsibility amongst human communities. The authors explicitly recognise the levels of cultural, personal and structural violence which are embedded across social and educational systems and the need to promote fundamentally dialogical, inclusive and relational competences. As the authors remarked "to think and to investigate the relationship between education and citizenship implies questioning the means and the ends, clarifying which kind of citizenship is intended and which kind of society we want to construct". In this process, teachers and students and educators at large are tasked to engage with both reason and affect: getting involved with social change is a material, corporeal and emotional investment, at the service of the communities in which we live.

The papers brought together in this special issue have the clear mission of weaving a critical understanding of globalisation across educational systems and beyond specific disciplines or levels of education. This special issue of Sisyphus calls upon the need for educationalists to engage further and in a more connected and sustained way with the challenges of providing a sustainable path for living in the Anthropocene: is one planet residency with boundaries which are not so clearly defined. What are the attitudes and experiences required to build a safe operating space of humanity?

Laura Colucci-Gray
Donald Gray

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GLOBALISATION AND THE ANTHROPOCENE: THE RECONFIGURATION OF SCIENCE EDUCATION FOR A SUSTAINABLE FUTURE

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ABSTRACT

In this article we discuss current impacts on the planet as a result of techno-scientific developments and neo-liberal policy. We argue that science education has an important role to play in supporting society to respond to new challenges ahead. However there needs to be a change to the way in which science is introduced in schools to raise awareness of complex global interconnectedness and our embeddedness in the natural (and increasingly altered) planetary cycles. Such awareness changes how we view the practice of science and the way in which science is presented in schools. Drawing on recent literature, this paper will present an argument for the reconfiguration of science education for a sustainable future.

KEY WORDS

Sustainability Science; Equity; Democracy.

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Globalisation and the Anthropocene: The Reconfiguration of Science Education for a Sustainable Future

Donald Gray | Laura Colucci-Gray

THE WORLD OF SCIENCE

> business as usual in science will no longer suffice, that the world at the close of the 20th century is a fundamentally different world from the one in which the current scientific enterprise has developed (Gallopin, O'Connor, Funtowicz & Ravetz, 2001, p. 237).

Citing Lubchenco (1998), Gallopin et al. (2001) were calling for a change in the method and practice of science arguing that the way in which the current scientific enterprise has described the world and influenced the cultural fabric of, largely Western, society could not be sustained. Lubchenco's (1998) call for a "New Social Contract for Science" indicated that such recognition of the need for change was coming from the scientific establishment itself. The (unwritten) social contract with science had been the expectation that substantial investment in science would result in winning the war (initially the Second World War and later the Cold War). The social contract and the privileged position of science had resulted in incredible understanding ranging from the discovery and detailed structure of the smallest organisms, an intricate and far reaching understanding of our bodies, and greater recognition of the complexity and interconnectedness of our world, to the extensive

exploration of our universe and its history. However, Lubchenco went on to question whether the science that met these challenges in the past was prepared for the daunting challenges that face us in the future. At the time Jane Lubchenco was president of the American Association for the Advancement of Science, four years later Peter Raven, the then president of the AAAC stated: "We need new ways of thinking about our place in the world and the ways in which we relate to natural systems in order to be able to develop a sustainable world for our children and grandchildren" (Raven, 2002, p. 957).

The scientific establishment was beginning to take note of the drastic impacts the power of science had enabled mankind to inflict on the Earth. The list is long and serious: climate change, ozone depletion, water scarcity, meteorological instability, melting ice caps, mineral resources depletion, rainforest clearance, atmospheric pollution and so on. Such recognition prompted Paul Crutzen, a Nobel prize winning atmospheric chemist to suggest that we are living in a new geological epoch called the Anthropocene.

Such awareness, however, is not new and a number of other prominent scientists had already recognised the far reaching impact of human activity, perhaps one of the most notable and seminal being Rachel Carson with her book Silent Spring. Carson, a marine biologist and conservationist documented in her book the detrimental effect of chemical pollution on the environment, particularly on birds, and brought such concerns to everyday awareness. However, while Silent Spring helped to bring this to the attention of the general public, more than fifty years on the problems appear to be accelerating rather than being brought under control and diminishing. The most pressing problem today may be climate change, or as some would rather call it, the climate crisis. The level of atmospheric carbon dioxide as elaborated by the Intergovernmental Panel on Climate Change (IPCC, 2014) and presented by NASA (n.d.) is clearly not part of the natural global cycles as some would have us believe, but is in fact an anthropogenic effect. As stated in the IPCC report: "Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems" (IPCC, 2014, p. 5).

Thus climate change has been, it is suggested, caused largely by industrialisation over the last few hundred years and particularly as a result of the great acceleration (Steffen, Crutzen & McNeill, 2007; Steffen et al., 2004) in the second half of the twentieth century, giving rise to the widespread and significant impacts on human and natural systems. The impacts from the

great acceleration, it is argued, are largely as a result of the scale and speed of modern technoscience (Jasanoff, 2002) coupled with the global hegemony of western neo-liberal economic policies and industry. This has resulted in dangerous and possibly irreversible, damage to our life-support system (Rockström et al., 2009). It has, however, also been suggested that humans have contributed in large part to the current state of global and local climate change in other more subtle and complex ways than through the mechanisms proposed by the IPCC (Bryce & Day, 2014).

The term Anthropocene was first advocated by biologist Eugene Stoermer in the 1980s but not popularised and put into print until he co-published an article with Nobel prize winning atmospheric chemist Paul Crutzen in a Global Change Newsletter in 2000. In this newsletter they presented some of the fundamental impacts that human technology and progress has had on the planet and stated:

> Considering these and many other major and still growing impacts of human activities on earth and atmosphere, and at all, including global, scales, it seems to us more than appropriate to emphasize the central role of mankind in geology and ecology by proposing to use the term "anthropocene" for the current geological epoch (Crutzen & Stoermer, 2000, p. 17).

It has long been recognised that science as a discipline does not exist in a vacuum, outside of either nature or social processes. Science is conducted by human beings on behalf of other human beings and/or an academic community, often at the directive of yet others. Scientists bring their own perspectives, values and attitudes to bear on the subject of their focus and these can often result in diverging opinions about courses of action or interpretation of data (Sarewitz, 2004).

These twinned and inter-related phenomena of globalisation and anthropogenically induced global change have, we believe, profound implications for the purpose and pedagogy of science education in our schools.

WHAT IS GLOBALISATION?

Before examining the issues relating to science education in the Anthropocene, it is necessary to first of all take a look at what is meant by globalisation

and the impacts that modern day globalisation is having on the "three pillars" of sustainability the economic, social and environmental (Brundtland Commission, 1987), and subsequently the fabric of the planet. From here we propose to consider some general trends of globalisation made manifest in education systems around the world and then, more specifically to make our proposals for science education in the globalised world of the Anthropocene.

Altbach (2013), in considering what globalisation means for higher education suggested that it "implies the broad social, economic, and technological forces that shape the realities of the 21st century" (p. 7). Such elements include advanced information technology, new ways of financing higher education aligned with neoliberal economic agendas, and an acceptance of the principles of commercialisation and market forces. In addition globalisation presents the opportunity for unprecedented mobility of students and academics. Altbach also suggests that it gives rise to "the global spread of common ideas about science and scholarship, the role of English as the main international language of science, and other developments" (p. 7). While on the one hand this may provide beneficial opportunities and results, a view strongly endorsed by Charlton and Andras (2006), on the other hand it is also strongly condemned by others as the hegemonic spread of western ideology and culture at the expense of other perspectives, languages and knowledge and, as such, presents a threat to the world's cultural, linguistic and biocultural diversity (UNEP, 2001). Such a hegemony of largely Euro-American views, culture and language, further underpinned by Western European socio-cultural and philosophic history, risks stifling the bio-cultural diversity, and the importance of local and indigenous knowledge which has been demonstrated as being so important in human development over the millennia (Maffi, 2007).

Chiu and Duit (2011) describe globalisation as the processes of global (i.e. worldwide) distribution of ideas and goods, most significantly with regard to scientific, technological, economic and cultural products and developments. While the international spread of materials, goods, cultures and ideological perspectives has been prevalent throughout history, what has been more recently termed globalisation refers much more to economic globalisation based on a renewed (neo-)liberalism which is built on the ideological perspective of liberating individuals from state intervention to pursue economic self-interest. However, the limitations and damage of neoliberal economic thinking is increasingly recognised and has given rise to "new" and "ecological" economics which adhere to some fundamental principles, such as those

embedded in the *Limits to Growth* (Meadows, Meadows, Randers & Behrens, 1972), of finite resources in a globally interconnected planet where the health and well-being of all living beings, as well as humans, and concomitant environment and social justice are fundamental to the future survival and sustainability of the planet. The new economics foundation, for example states that its purpose is "to bring about a Great Transition — to transform the economy so that it works for people and the planet" (New Economics Foundation, n.d.). The term Great Transition here is perhaps making reference to the work by Karl Polanyi (1944), *The Great Transformation*, which provided a foundation, along with the works of others such as K. William Kapp, Kenneth Boulding and Herman Daly, for the development of the modern school of thought of ecological economics.

Moore, Kleinman, Hess and Frickel (2011) define globalisation as a "descriptive characterization of an historical change in the scale of society" (p. 507). While acknowledging global phenomena throughout history, modern globalisation has largely resulted in the post-World War II scenario. Such changes are characterised by,

> in the political field (...) the increasing role of international governmental and nongovernmental organizations in organizing access to rights, identities, and material benefits; in the economic field to the increasing role of multinational corporations, and the interlocking of global financial institutions; and in the social field to changes in the volume and types of immigration and cultural flows (Moore et al., 2011, p. 507).

So we see that in different disciplines the term globalisation has nuanced meanings with some scholars theorising globalisation as ideology, some as a prevailing epoch, and others as process (Harvey, 2005; Tobin, 2011).

GLOBALISATION AND SCIENCE

There are contrasting views about what the implications are for globalisation and its influence on science, or science's influence on globalisation. As pointed out by Fensham (2011) the start of the 21st century resulted in a number of scientific and technological organisations identifying what they saw as "Grand Challenges and Opportunities". Environmental and health

issues, reflecting societal concerns, figured prominently and can be seen as examples of society's need for a solution to issues frequently brought to public and political awareness through mass media and other technological communication such as social media. So, while these global issues provide a focus for the attention of science and politicians looking for "solutions", another side of the coin is the fact that the increasing scale and power of science and technology, coupled with huge financial investment, has actually contributed to many of these problems, such as increased CO2 production which has greatly contributed to climate change, toxic pollution from overuse of agricultural chemicals (Shiva, 2014), and damage to the ozone layer as a result of the use of chlorofluorocarbons (CfCs). On a global scale Llewellyn Smith (2011) suggests that the global issues we now face (such as energy, food and water security; climate change; biodiversity; potential pandemics) are much more complex than other issues which have previously focused science, and the media's, attention such as ozone depletion and smallpox.

One aspect of globalisation and the grand challenges we face today such as global environmental change, food security and widespread poverty requires different approaches to the traditional monodisciplinary sciences. In other words it requires interdisciplinarity. Interdisciplinary thinking is becoming an integral feature of research as a result of four powerful "drivers" stated by Bammer (2013) as: the inherent *complexity* of nature and society, the *need* to explore problems and questions that are not confined to a single discipline, the *need* to solve societal problems and the power of new technologies. She goes on to say that the grandest of today's challenges are what are known as "wicked" problems, key elements of which are: a high degree of connectivity to other problems, making them effectively impossible to isolate; considerable uncertainty and ambiguity about the problem and the solutions, including poor-quality or missing data; multiple value conflicts and ideological, cultural, political, economic and other constraints; resistance to change because there are contradictory solutions, numerous possible intervention points and consequences that are difficult to imagine (Horn & Weber, 2007).

The characteristics of "wicked" problems, described by Horn and Weber as being "composed of inter-related dilemmas, issues, and other problems at multiple levels society, economy, and governance" (2007, p. 1) are similar to the problems that need to be addressed by a new form of science suggested by Funtowicz and Ravetz (1993), "post-normal" science.

Clearly referring to the Kuhnian notion of normal science, Funtowicz and Ravetz (1993, 1994) developed the idea of post-normal science to deal with the new challenges of complex science related issues where science is applied in conditions that are clearly not "normal" and there are high degrees of uncertainty and risk. In these typically facts are uncertain, values in dispute, stakes high and decisions urgent. The model proposed by Funtowicz and Ravetz is one which recognizes three levels of science engagement. Where both uncertainty and stakes are small, traditional research and expertise can do the job without having to pay any particular attention to value-laden considerations. When one or both of them is at a mid-level, there is a need to appeal to a wider professional consultancy. Post-normal science emerges when both uncertainty and decision stakes are high and the value-dimension and perceptions held by the stakeholders have to be taken into consideration (Boudourides, 2003). In other words there is an appeal to the "extended peer community" to seek a resolution to the tensions caused by the uncertainty.

One of the difficulties with the globalisation of science is the accusation that the science that is promulgated is a science built on a Euro-American model and perspectives, with a predominance of English as the medium of communication. It is also suggested that such infusion of western science is inextricably linked with a neoliberal globalisation and neoliberal economics resulting in the marginalisation of indigenous knowledge and the concomitant threat to bio-cultural diversity (UNEP, 2001). So on the one hand there are those who perceive globalisation, despite its inevitable problems, as being a desirable and beneficial trend (Charlton & Andras, 2006) "since it enables increased efficiency, effectiveness and capability of societies and thereby, potentially benefits most people most of the time" (p. 869). However, on the other hand others such as Jasanoff (2002) highlight the inherent difficulties with a simplistic and reductionist view of science and technology development. While science and technology have, she says, brought "hope of liberation from hunger, toil and disease" (2002, p. 255), their impacts can, conversely, prove to be devastating. The embracing of science and technology by business and politics as some kind of panacea for economic and social ills has resulted in some serious consequences. As she states:

> The transnational movement of science and the artefacts that embody scientific knowledge give rise to distinctive social and political problems, especially when societies that played no part in the design or construction of new

> technologies are forced to engage with technology's widening reach (Bijker et al., 1987; Jasanoff, 1994) (Jasanoff, 2002, p. 255).

This internationalisation of science and technology, Jasanoff suggests, while perhaps having very positive benefits also has the result of constraining people's power of self-determination, no less than legal regimes and financial markets. As a counterpoint to the idea that science is a "neutral" discipline she points out that technologies are "never developed in morally neutral spaces but are conceived and deployed within previous configurations of wealth and authority. Existing hierarchies reinscribe themselves with the aid of new instruments (…)" (2002, p. 258). For example, giant corporations, with the aid of complicit legal structures, use technologies to deskill workers and tighten control of the workplace (Noble, 1977). Similarly technologies have done little to change the position of women in families, with the basic division of labour much as it always has been (Cowan, 1983). Jasanoff provides other examples, from the Green revolution (Scott, 1985; Shiva, 1991), hazardous technologies and development of complex technologies (Winner, 1986), of how the old hegemonic structures, power and influence are further entrenched through the appropriation and use of science and technology, maintaining and even exacerbating rich-poor and north-south divides and have been implemented without meaningful democratic supervision and debate (Shiva, 1997).

The unintended consequences of science and technological development has been dramatically underscored in

> the succession of environmental problems that imprinted themselves on human consciousness during the last third of the twentieth century: pollution from pesticides and hazardous substances (Carson, 1962), acid rain from power plant emissions, ozone depletion through the use of seemingly benign chemical refrigerants, and climate change as a consequence of energy-consuming industrial and agricultural development (Jasanoff, 2002, p. 259).

So on the one hand we have the global impacts of science and technology as a result of the large power and scale of global level industrial processes, the exacerbation of global pandemics as a result of greater global communication and travel, recognition of the complexity of the planetary systems and the global movement of energy and materials as a result of human activity, massive increase in industrial agricultural processes ostensibly required to feed

the growing population. All these require a reconsideration of the current practices of science, which in turn will have implications for the principles and practice of science education at all levels.

THE GLOBALISATION OF SCIENCE EDUCATION

While there has been some academic work examining globalisation and its general impact on education and teacher education, there has been little commentary with respect to this in the science education literature, although it is slowly gaining recognition (Carter, 2005). Underpinning the critiques of the influence of globalisation on science education is the need to recognise "expose" and "scrutinise" the neoliberal influences on science, which, Carter suggests, enhances the quality of theorising about the political influences in science education, and thus facilitating attempts to improve that education (Carter, 2014).

Yet while there is little acknowledgement of the relationship between globalisation and science education in the science education literature, global influences are made manifest in the incorporation of travelling policies linked to standardisation and marketization as suggested by Hartley (2002) and Ozga (2005). An example of the manifestation of globalisation within science education is typified by the spread of science education reform agendas embodied within movements such as "Science for All" and scientific literacy (Carter, 2005). Such globalisation has, suggests Carter, resulted in a homogenizing educational model. This model reflects Hartley's views of the marketization and standardisation of education which, in science education, takes the form of "self-regulation through curriculum and teaching standards coupled to sophisticated regimes of surveillance…" (Carter, 2005, p. 571). Thus the globalisation of science education, according to authors such as Bencze and Carter (2011), is founded on an economic model which reflects and lends weight to the predominant neo-liberal market economies and serves to preserve these traditional forms of privilege at the expense of more democratic and social agendas. Such a homogenisation and global acceptance of science education is in direct contrast to the new views of science emerging from fields such as science studies and recognition of the importance of other forms of knowledge that can actually contribute to a better understanding of our world and contribute to the science knowledge base (e.g. Aikenhead, 1996; Aikenhead & Ogawa, 2007). Thus

academics and educators need to be aware of the global economic agendas that influence the way in which educational policies and subject content knowledge is mandated, as well as the influence such policies have on pedagogical practice which, suggested by Hartley (2002), is likely to lead to much more teacher centred and more "traditional" approaches to practice. Such traditional approaches tend to treat science as a body of knowledge that is independent of the sociocultural environment in which the practice of science takes place and therefore tends to ignore the impact that science and technological developments have on the planet, and the way in which, as Jasanoff points out, science as developed by policy and commerce, exacerbates the already entrenched rich/poor and north/south inequalities that exist in the world. Thus there is a need to critically examine science education's relationship to globalisation, to elaborate the different perspectives and consider the implications of those aspects that have direct impact on science classrooms (Astiz, Wiseman & Baker, 2002). What is apparent is that, while science education has seen a variety of initiatives aimed at raising awareness of the social and environmental impacts of science, such as Science and Technology Studies, and Science for Citizenship, science is, nevertheless still largely conducted in what can be described as a traditional format. As Tytler states:

> The emphasis is on conceptual knowledge, compartmentalised into distinct disciplinary strands, the use of key, abstract concepts to interpret and explain relatively standard problems, the treatment of context as mainly subsidiary to concepts, and the use of practical work to illustrate principles and practices. All these have been relatively constant features of science education across the 20th century and into the 21st (2007, p. 3).

Taking account of the current impact of big science and techno-science's partnership with commercial interests and the subsequent impact on the planets eco- and life support systems, suggests a need to reconfigure science education not just to cover simple science "facts" and "processes" but to raise awareness of the subtle ways in which science is used and abused for commercial gain at the expense of social and environmental well-being. As Carter suggests "researching globalisation's impact on science education could forge some new and different scholarship directions" (2005, p. 574) as well as developing alternative frameworks for reviewing some of science education's current tensions, ambiguities and paradoxes. Such a critical examination of the neoliberal and globalisa-

tion impact on science with the subsequent consequences for environment and biocultural diversity, and the influence on science education, forces us to deeply analyse and ask some hard questions about science education reforms. Who are they for and what purpose do they serve? What kind of science education do we want? Carter's view is that we should be working towards developing a science education that values non-commodified forms of knowledge, relationships, activities, and aspects of life, and that includes sustainability science, cultural recognition, and social redistribution in its agenda. Acknowledging that much of the form of this approach to science education has yet to be configured, an important part of its reconfiguration and development is in elaborating the relationship between globalisation and science education.

While Carter's view is very much critical of the impact that globalisation has had on education and science education others, such as DeBoer (2011), view the globalisation agenda from a different perspective. Acknowledging that international testing and comparisons such as TIMSS and PISA do take place, DeBoer asks whether there should be a move to build on these and develop international standards for global citizenship in science education while still providing scope for individual countries to pursue goals that are unique to their own setting. Bencze and Carter (2011), continuing the critique of neoliberalism and science education suggest that, currently, science education is largely influenced by neoliberal agendas and functions to produce future scientists as *producers* and compliant citizens as *consumers*. To counter this "undemocratic" and "highly problematic" use of education, they propose a theoretical framework for organising science and technology education to bring about a more just and sustainable world. The framework they propose is based on principles like holism, altruism, realism, egalitarianism and dualism. In short the framework for consideration of socio-scientific issues offers a marked contrast to the established hegemony of reductionist science coupled with neoliberal interests which serve largely the needs and desires of a few at the expense of the many and the environment. The contrast to this is to raise awareness of the holistic and interconnected nature of global problems, to encourage understanding of the disproportionate distribution of economic, cultural and social capital and to strive towards more egalitarian values. This Bencze and Carter term activist science and technology education and can thus be seen to be building on the proposal from Hodson (2003) who suggested that education in this domain of socio-scientific issues can occur at four levels of sophistication (Bencze & Carter, 2011). These are:

Level 1. Appreciating the societal impact of scientific and technological change, and recognizing that science and technology are, to some extent, culturally determined.

Level 2. Recognizing that decisions about scientific and technological development are taken in pursuit of particular interests, and that benefits accruing to some may be at the expense of others. Recognizing that scientific and technological development are inextricably linked with the distribution of wealth and power.

Level 3. Developing one's own views and establishing one's own underlying value positions.

Level 4. Preparing for and taking action [to address SSIs]

(Hodson, 2003, p. 655).

So we see there is a potential tension and conflict resulting from differing perspectives on science education and its purpose. On the one hand we have the global economic agenda and subsequent policy and assessment initiatives (e.g. PISA, TIMSS) which drives science education towards a homogenised and standardised approach with the tendency inherent in this approach towards conservative, traditional pedagogies largely dependent on memorisation and recall with some deference given to problem solving skills in the form of enactment of a "scientific methodology". On the other hand, we have the socio-environmental imperative and the anthropogenic impacts on the life support systems of the planet with, beyond any doubt, "warming of the climate system is unequivocal" (IPCC, 2014, p. 5) resulting in "the likelihood of severe, pervasive and irreversible impacts for people and ecosystems" (ibid., p. 7).

It can also be argued, and is also recognised, that the current science provision in schools is "content heavy with transmissive pedagogy" and much of the science curriculum is "irrelevant" (DCSF, 2008, p. 3). The current provision for science education is, arguably, unfit for the purpose of a science education required to fulfil multiple purposes for a globalised future. There is, perhaps, not a universal consensus as to what science education should look like but it will, by necessity need to be radically different to what is on offer just now. Perhaps such a future education can be imagined from the amalgamation of research and scholarly literature on science education along with suggestions from the IPCC's (2014) report on climate change. In the summary report they state that the educational options for social transformation in response to cli-

mate change are: "Awareness raising and integrating into education; Gender equity in education; extension services; sharing indigenous, traditional and local knowledge; participatory action research and social learning; knowledge sharing and learning platforms" (p. 26).

The interesting aspect of this statement is that it actually mirrors many of the themes that have emerged over the years in the science education literature. So, for example gender equity in education is well covered in the general educational research literature but has a particular significance in the STEM subjects because of the traditional dominance of boys taking the sciences in schools, particularly the physical sciences. This coupled with a general downward trend in the uptake of STEM subjects at Higher Education level has resulted in this being a key area for UK policy (DCSF, 2008).

Similarly as mentioned earlier Aikenhead (1996) and Aikenhead and Ogawa (2007) amongst others, have examined and raised awareness of the importance of traditional and indigenous knowledge in science education.

With respect to participatory processes and action research it could be argued that the field of education is far in advance of the natural sciences in this respect, although there are some tokenistic forms of participation being used in science projects in the form of citizen science projects. McFarlane (2013), for example, suggests that the call for a new science education requires a participatory pedagogy which "demands student-teachers' enquiry-based actions addressing issues that are socio-scientific and which underpin the human and technical elements of science learning as a field" (p. 38).

In essence it seems that with regard to the socially transformative potential of education the sciences, in the form of the IPCC, are just beginning to recognise what has been advocated in many of the more forward thinking science education publications for many years now. It could be the case that for once science education research has something to offer the pure sciences when it comes to social transformation. Now that this has been articulated by the IPCC it may be possible to apply more leverage to the policy makers to enable some radical changes to be enacted in secondary school science departments.

Such radical changes will require a substantial rethink of the way in which science is usually taught in schools. As Tytler suggests,

> Pedagogy, in a re-imagined science curriculum, will need to be more varied, more supportive of students' agency through more open tasks, increased discussion and negotiation of ideas, and involve more varied settings. Reform

> of science education will need to include a substantial re-think of pedagogy, linked to content reform and teacher development (2007, p. 66).

As a final thought which has perhaps been given more urgency, and more poignancy, with the current climate crisis than when Dewy first stated this:

> *If we teach today as we taught yesterday, we rob our children of tomorrow*
> John Dewey (1916, p. 167).

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CRITICAL AND TRANSNATIONAL LITERACIES IN INTERNATIONAL DEVELOPMENT AND GLOBAL CITIZENSHIP EDUCATION

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ABSTRACT

This article explores the concepts of transnational and critical literacies in development and global citizenship education. Critical literacy, as defined in this text, emphasizes the need for a careful examination of collective social scripts (e.g. of progress, knowledge, belonging, and identity) as a practice of responsible intellectual engagement across all sectors. Transnational literacy is defined as an examination of the dynamics of globalisation and how it can be negotiated. In the first part of this article, I introduce the concept of critical literacy in global citizenship education offering examples of my own academic and pedagogical practice in this area. In the second part, I introduce the idea of transnational literacy with examples from international development education. In the last part, I present a cartography with four different "root" narratives as a stimulus for dialogue and analyses that uses both critical and transnational literacies and that may clarify concepts and open new possibilities for thinking and practice in education.

KEY WORDS

Globalisation; International Development; Teacher Education.

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Critical and Transnational Literacies in International Development and Global Citizenship Education

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INTRODUCTION

Responsible education in current "global times" requires a deeper understanding of the social, cultural, economic and historical forces and flows that connect peoples, places, spaces and world views, and of the difficulties of intervening in complex and dynamic systems. When that is missing, educational outcomes tend to unintentionally reproduce unequal relationships between dominant and marginalised populations, simplistic rationalizations of inequality, and instrumental and ethnocentric imaginaries of global citizenship, diversity and social responsibility. This article aims to engage readers in analyses, reflections and mapping exercises related to the ethics of educating about/for global citizenship and international development. In the first part of this article, I introduce the concept of critical literacy in global citizenship education offering examples of my own academic and pedagogical practice in this area. In the second part, I introduce the idea of transnational literacy with examples from international development education. In the last part, I present a cartography with four different "root" narratives as a stimulus for dialogue and analyses that uses both critical and transnational

literacies and that may clarify concepts and open new possibilities for thinking and practice in education.

CRITICAL LITERACY

Critical Literacy: Theories and Practices is the title of an academic open access journal I founded with Lynn Mario de Souza in 2006. When we first started the journal we were aware that different groups in education used the term in different ways, which is evident in the wide variety of articles we have received and published so far. Therefore, as an editor, I have used a very open and general definition of the term as 'an educational practice that emphasizes the connections between language, knowledge, power and subjectivities'. Authors have traced the origins of the term to different sources and associated critical literacy with different traditions, including critical pedagogy (e.g. Paulo Freire), the New/Multi-Literacies group (e.g. Brian Street), discourse analysis (e.g. Norman Fairclough), and poststructuralism and postcolonial studies (e.g. Michel Foucault and Edward Said). The way I use critical literacy in my own work has been informed by the latter, drawing particularly on the work of Gayatri Spivak (see Andreotti, 2014). In this article, I intend to outline some of the ways I have used this concept in research and teacher education related to international development and global citizenship education as a strategy of examining the politics of knowledge production and the limits and possibilities of different knowledge systems.

In the article *Soft versus Critical Global Citizenship Education* (Andreotti, 2006), drawing on the works of Dobson (2006) and Spivak (2004) (see also Andreotti, 2007, 2011a), I stated that there were at least two common trends in educational initiatives that promoted concern for others (especially distant others). The first was based on the idea of a common humanity and a single idea of progress. I represented it as a "soft" approach to global citizenship and development education. The second was based on the idea of justice, complicity in harm, and multiple ideas of progress. I represented it as a critical approach to global citizenship and development education. I argued that "soft" approaches based on a modernist understanding of linear time, progress and development, although productive in certain contexts, tended to close down the possibility of more critical approaches, particularly of approaches that offered alternative ways to conceptualize development, knowledge and solutions from

the perspective of historically subjugated peoples (see also Bourn, 2011; Bryan & Bracken, 2011; Martin, 2011). I asserted that "critical literacy" as an educational practice that critically examines origins and implications of assumptions as well as other possibilities for signification, could be a viable way to start to address this problem.

The conceptualization of critical literacy I used in that article combines questions within two orientations. The first orientation challenges imbalances in power and representation. This can be illustrated in questions such as: who decides (something is true or ideal), in whose name and for whose benefit? The second orientation challenges the notion that meaning is objective and self-evident. It emphasizes the social, cultural and historical "construction" of realities and highlights the limits and blind edges of any system of signification, promoting openness to suppressed knowledge and subjectivities and to what is unknown. This orientation is illustrated in questions such as: where is this understanding coming from (in terms of collective "root" narratives), where is it leading to (in terms of social, cultural, political and environmental implications), and how can this be thought "otherwise" (what possibilities of signification have been "forgotten" in this context)?

Within the multiplicity of critical literacy traditions, this approach differs slightly from critical engagements based on other orientations. Cervetti, Pardales and Damico (2001), for example, establish a distinction between traditional reading, critical reading and critical literacy, emphasizing that each orientation of "reading critically" will result in different questions being asked. Using their framework, I illustrate these differences through the scenario of a teacher and a student in a classroom, where the teacher is telling the student he needs schooling in order to "be somebody in life". Within their framework, a traditional form of reading would enable "decoding" questions such as: what did the teacher say, how did she substantiate her arguments, is what she said true or false? A critical form of reading would look further into the context and political framework of the scenario: where was this school, when did it happen, what was the socio-economic situation of the teacher and student, what was the motivation and political orientation of the teacher, what power relations are reproduced in the teacher's statement, how did the teacher's views affect the student and his/her family? A critical literacy approach would focus on the production of knowledge/power and enable questions like: who decides what "being somebody" means, in whose name for whose benefit (then and now), how do we come to think about the ways we do,

who makes choices about understandings of reality, whose interests are represented in these choices, who benefits or loses with them, what choices are forgotten, how do people in different contexts understand the idea of "being somebody"?

I usually emphasize a strategic distinction between reflexivity and reflection in the practice of critical literacy in teacher education. "Reflection on practice" in teacher education has been mainstreamed as a form of thinking that looks at individual processes of meaning and decision making in order to improve educational practice amongst teachers. I suggest the term self-reflexivity to contrast the practice of reflection (thinking about individual journeys and assumptions), to the practice of tracing *individual* assumptions to *collective* socially, culturally and historically situated "stories" with specific ontological and epistemological assumptions that define what is real, ideal and knowable (i.e. "root" narratives). This highlights that possibilities for thinking available to individuals, and individual 'choices' are never completely "free", "neutral" or only "individual", as the things we say, think and do are conditioned (but not necessarily determined) by our contexts (see Andreotti, 2010a, 2010b). Self-reflexivity also challenges the assumption of the self-evident subject — the idea that there is a direct correlation between what we say, what we think and what we do. It draws attention to the complex constitution of subjectivities, to the interdependence of knowledge and power, and to what is sub- or un-conscious in our relationships with the world.

I have used the metaphor of a three-layered cake (see figure 1) to illustrate these differences. At the top layer there is "what we say, what we think and what we do", which are generally perceived to be directly related. A "Cartesian" understanding of subjects states that we say exactly what we think and that we can describe objectively exactly what we do. However, our capacity to describe what we think is limited by what can be said: what is appropriate and intelligible to both ourselves and to others (e.g. we can think things that are not appropriate to say in specific contexts, or that we cannot articulate, acknowledge, or make sense of). Our capacity to describe what we do is limited by what we can notice and by what we want to present to others (e.g. we can say we are open and flexible, but fail to notice that we act in a contradictory way). This recognition of the limits of language is part of critical literacy practices.

The second layer of the cake is that of individual experiences. It acknowledges that what we say, think and do are based on our individual journeys in

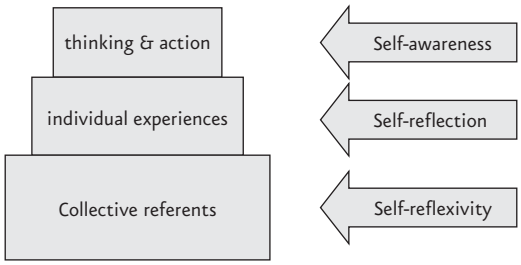

FIGURE I — AWARENESS, REFLECTION AND REFLEXIVITY.

multiple contexts. They are rooted in our unique "baggage" of concepts and traumatic, inspiring and ordinary learning experiences and dependent upon what we have been exposed to. The third layer of the cake recognizes that our experiencing and interpretation of these experiences are conditioned by collective referents grounded in the languages we have inherited to "make sense" of reality and communicate with others. These languages have specific criteria for what counts as real (ontology), what can be known and how (epistemology), where is "forward" and how to get there (teleology/methodology). These collective criteria are socially, culturally and historically "situated" — they depend on a group's social, cultural and historical background and therefore they change (slowly) over time, as contexts change and criteria of different groups intersect and contradict each other. Therefore, there is always diversity within a group of same criteria, as things are never static, but there is also always a dominant set of criteria that represents the "common sense" of a group or groups. I suggest that an analysis of the first layer could be named "self-awareness", an analysis of the second layer "self-reflection" and an analysis of the third, "self-reflexivity". All three are important for development education.

In order to address some of the pedagogical challenges of introducing this conceptualization of critical literacy in the classroom context in my work as a teacher educator, I created a matrix of the relationship between knowledge, power, the construction of realities in the classroom, and ideas about the control of pedagogical outcomes (see Andreotti & Souza, 2008). I illustrate this matrix with examples from development education, as the practice of critical literacy in this area, is sometimes accused of either "indoctrinating" or "paralysing" learners (see Vare & Scott, 2007 for a similar discussion on Education for Sustainable Development). Critical literacy is perceived to indoctrinate

learners when a specific critical analysis of injustice and position on justice are presented as the only morally justifiable path. Critical literacy is perceived as paralyzing learners in questioning everything, when it emphasizes a multiplicity of perspectives, the limits of knowledge and the complexity and context dependency of positions on justice. Thus, the matrix helps think through these issues and present these perceived problems as part of a more general discussion on the role of education. This matrix combines two ways of thinking about education (i.e. "think as I do and do as I say" and "think for yourself and choose responsibly what to do") and two ways of thinking about knowledge (i.e. "there is one right answer independent of context" and "answers are socially constructed and context dependent").

Therefore, there are (at least) four different possibilities for thinking and action. The first possibility is *think as I do, do as I say, there is only one right answer.* The example from development education I use is a quote from a teacher: "I teach my students that people in poorer countries lack technology, education and proper work habits. I make sure my students understand that we have a moral obligation to help them by providing assistance through charity and expertise". The second possibility is *think for yourself and choose responsibly what to do, but there is only one right answer,* which is illustrated in the quote: "I teach my students that they need to be critical thinkers — to separate facts from opinions and to search for impartial, objective information to construct their arguments. I believe rational and scientific thought is the only way to achieve a just and prosperous society". The third possibility is *answers are context dependent, but in my class, you should think as I do and do as I say,* illustrated in: "I teach my students that textbook history is always told from the point of view of the winners and that the perspective of the oppressed peoples are seldom promoted. So, I teach my students the perspective of the oppressed. I want them to be willing to fight for social justice". Last, the fourth possibility is *answers are context dependent, you should learn to think for yourself and choose responsibly what to do*, exemplified in: "I teach my students that there are always different perspectives on any issue, that these are grounded in social, cultural and historical processes, and that whatever choice they make there will be systemic implications. My job is to create spaces for them to engage with the ethics of global challenges, processes and dilemmas in ways that create a sense of interdependence and responsibility for themselves and towards the world". I emphasize that decisions about possibilities are also context dependent (a teacher may legitimately choose the first under certain

circumstances), but that the fourth possibility has not been very common in formal Western schooling where the first and second possibilities have been dominant and also imposed or exported all over the world.

TRANSNATIONAL LITERACY

Transnational literacy can be theorised as an extension of critical literacy (Brydon, 2004). Transnational literacy is a less popular term that is used more often in literary studies as a form of reading through "critical intimacy" that tries to curb superpower triumphalism by focusing on the acknowledgement of complicity as a productive step in analyses of the dynamics of globalisation (Spivak, 1999). Transnational literacy evokes a different approach to knowledge, an acute critique of the roots and effects of the circulation of global capital, and a deep suspicion of quick fixes. In education, I have defined it as a practice that challenges single stories of progress, development and human evolution. Given that single stories abound in these categories, transnational literacy is used to disrupt hegemonic forms of ethnocentrism that tend to frame the global imaginary reproduced in the media, in education and in our daily socialization. The book *Learning to Divide the World: Education at Empire's end* (Willinsky, 1998) can be described as an exercise in transnational literacy that shows the historical complicity of education in dividing the world between those who are perceived to be heading humanity towards a single story of progress, and those perceived to drag humanity down.

When introducing critical and transnational literacies in international development education, I choose scenarios that make evident dominant taken for granted perspectives about the benevolence of progress, charity and schooling in international engagements. One of the scenarios I use is a poster with pictures of children in need with the title "education for all can solve all problems". I use the idea of 'critical reading' to explore the context of production of that poster: what is the purpose of the poster, who created it and with what motives, where was it placed and why, how and why were pictures and words chosen, how is the reader manipulated through the language to think and act in certain ways? I use the idea of "transnational literacy" to start to open up questions related to complicity in harm at a very basic level, such as: who decides what problems and solutions are (in the poster, historically and in "our" context), what assumptions inform these decisions, how are unequal

relationships between donors and recipients reproduced through these significations, what other conceptualizations of problems and solutions could be designed by communities that have been historically subjugated in these relationships, and so on.

In terms of engagements with historically subjugated communities who may offer alternative perspectives on international development issues, in the Through Other Eyes Initiative (TOE), Lynn Mario de Souza and I developed a resource and framework of a critical and transnational literacies based on Spivak's ideas of learning to unlearn, learning to learn, learning to listen and learning to reach out (see Andreotti, 2011a; Andreotti & Souza, 2008; Souza & Andreotti, 2009). I have also framed critical and transnational literacies as educational responses to increasing complexity, uncertainty, diversity and inequality in contemporary societies related to two different conceptualizations of the "post-" in postmodernism (i.e. post- as 'after', and post- as questioning) (Andreotti, 2010b). These practices could prompt an educational process that would enable students to move from the desire for absolute certainties, fixed identities/communities, and predictable and consensual futures towards being comfortable with contingent and provisional certainties, complex and hybrid identities/communities and open co-created futures in the context of global education (Andreotti, 2010b).

More recently, I have been framing my own work on critical and transnational literacies in global citizenship and development education around the task of addressing recurrent patterns of relationships, flows and representations between over-exploited and over-exploiting communities. I have created the acronym "HEADS UP" to represent these patterns, which refer to common practices of engagements and education that are:

— **H**egemonic (justifying superiority and supporting domination);
— **E**thnocentric (projecting one view, one "forward", as universal);
— **A**historical (forgetting historical legacies and complicities);
— **D**epoliticised (disregarding power inequalities and ideological roots of analyses and proposals);
— **S**alvationist (framing help as the burden of the fittest);
— **U**n-complicated (offering easy solutions that do not require systemic change);
— **P**aternalistic (seeking affirmation of superiority through the provision of help) (Andreotti, 2012a, p. 2).

I have put together a checklist of questions to help to identify each pattern in education (see Andreotti, 2012a) and also a list of questions that complicate further common/easy solutions for each of the patterns (see Andreotti, 2012b). At the heart of this work is the idea that education is about preparing myself and those I work with to enlarge possibilities for thinking and living together in a finite planet that sustains complex, plural, uncertain, interdependent and, unfortunately, deeply unequal societies. In order to do this, perhaps what is needed is an attitude of sceptical optimism or hopeful scepticism (rather than naïve hope or dismissive scepticism) in order to expand our inherited frameworks in terms of four educational priorities. First, it is necessary to understand and learn from repeated historical patterns of mistakes, in order to open the possibilities for new mistakes to be made. Second, we need to recognize how we are implicated or complicit in the problems we are trying to address. Third, we need to learn to enlarge our referents for reality and knowledge, acknowledging the gifts and limitations of every knowledge system and moving beyond polarized antagonisms towards agonistic solidarities (Andreotti, 2011b). Fourth, we must engage with more complex social analyses acknowledging that if we understand the problems and the reasons behind them in simplistic ways, we may do more harm than good.

In relation to the latter, it is also important for the field that these analyses are accessible and available to different discursive communities (e.g. academics, non-governmental organisation [NGO] practitioners, teachers and students). Therefore, work that translates and synthetizes discussions in different fields (e.g. politics, development, sociology, social movements) can be very useful and important in moving the debate in the field forward in a more organic way (see for example Andreotti, 2011b). The downside of translations and syntheses is that they simplify complex discussions and can create seemly fixed distinctions that do not correspond exactly to the shifting terrain they represent. Nevertheless, if used as a starting point for discussion (that is also open to critique), they are necessary tools in the creation of a tradition of responsible, non-exclusive, critical intellectual engagement in the field (see also Evans, Ingram, McDonald & Webber, 2009; Khoo, 2011; Marshall, 2011; Richardson, 2008). It is in this spirit that, in the third part of this article, I offer a new cartography which represents a revision of the popular distinction between soft and critical approaches to global citizenship education (Andreotti, 2006).

MAPPING NARRATIVES AS A KEY CRITICAL LITERACY EXERCISE

Tracing narratives to collective "root" narratives (or meta-narratives) is a central exercise of the kind of critical and transnational literacies I advocate in this article. As an intellectual exercise, mapping discourses helps people clarify their own positions by making evident the ambivalence of signification (the fact that words mean different things in different contexts), and by promoting the productive identification of inherent assumptions, patterns, trends, differences, similarities, paradoxes, and contradictions between and within different worldviews. Mapping exercises can also help people to explore the problem spaces that generated the questions they are seeking answers for in order to check if they are still relevant or if questions have already changed (Scott, 1999). However, each mapping exercise is not neutral or transparent: as all interpretations are socially, culturally and historically situated, so is the "picture" presented by a map. Therefore, it is important to remember that maps are useful as long as they are not taken to be the territory that they represent and are used critically as a starting point of discussion.

The mapping exercise I present below establishes distinctions between a) technicist instrumentalist, b) liberal humanist, c) critical and post-critical, and d) "Other" narratives of society, education, development and diversity. I characterize the first three orientations as framed by, or in response to, modernist tenets. These narratives reproduce similar characteristics of privileging: anthropocentrism (putting "mankind" at the centre); teleology (aiming for a predefined outcome in terms of progress); dialectics (expecting a linear progression towards a synthesis); universal reason (the idea of a singular form of rationality); and the Cartesian subject (who believes that he can know himself and everything else objectively). I propose that these basic characteristics should not be seen as all good or all bad, but as historically situated, and potentially restrictive if *universalised as a single story* through social, political or educational institutions or projects, as they prevent the imagination of other possibilities.

The technicist instrumentalist root-narrative frames *social engineering as economic rationalization decided by experts*. This narrative can be seen at work in educational and development initiatives concerned with the creation of human capital for national economic growth in knowledge societies. From this perspective education is perceived as a way to maximise the performance

of individuals in global markets driven by services and innovation, in order to improve their employability or entrepreneurial capacity with a view to contribute to their country's competitiveness in global economies. Economic growth is associated with the acquisition and accumulation of universal knowledge (in contrast, for example, to the explanation that economic growth is based on hegemonic control of means of production) and poverty is defined as a country's or an individual's deficit of knowledge, competencies and skills to participate in the global economy. The rationale for education is presented as a business case, as an individual responsibility of lifelong learning and adaptation to ever-changing economic contexts. From this perspective, global/development education, often associated with ideas of "social responsibility" involves the export of expertise from those heading the way in terms of economic development to those lagging behind. Engagements with other cultures are defined in relation to national interests, such as the protection of national labor markets, the expansion of consumer markets, and the perceived threat of unwanted immigration, creating a need for controlled and market oriented internationalization based on nationally defined objectives.

The root-narrative of liberal humanism frames social engineering as *human progress decided by national representatives*. From this perspective, education serves as enculturation into a national culture defined by its political or intellectual representatives, as well as an international culture perceived as an encounter between nationally defined groups of individuals primarily concerned with a combination of individual, national and humanitarian interests. What human progress looks like is decided by national representatives in supranational governance institutions like the United Nations, through a process of international consensus on key universal aims to be delivered by nation states, generally focusing on human rights, substantial freedoms or human capabilities. Thus, education should disseminate the international consensus on universal human progress defined in terms of access to education, healthcare, democracy and economic development. In this sense, obstacles to human progress become the focus of government agreed targets (such as the Millennium Development Goals), campaigns (like Education for All), and other charitable and humanitarian interventions which generally define help as the moral responsibility of those who are ahead in terms of international development.

Poverty is explained as a deficit in terms of human progress, therefore education becomes a vehicle for poverty eradication through partnerships

between donors/dispensers and receivers of aid, knowledge, education, resources (e.g. books, computers, etc.), technical assistance, human rights, or volunteer labour. From this perspective, education is a means to prepare world leaders to bring order and progress for all (generally through education itself). Engagements with difference are also defined in national or ethnic terms: global learners are encouraged to acquire knowledge about different cultures/nationalities, including different perspectives, in order to be able to work with diverse populations towards common/consensual goals (predefined by national or supranational governance institutions). Therefore, different perspectives and critical engagement are welcome within pre-defined frameworks (i.e. as long as there is acceptance of human rights, specific ideas of development, progress, governance, etc.).

Critical and post-critical root-narratives frame *social engineering as fair distribution done by ordinary people* (rather than experts or representatives). These perspectives are based on a critique of both technicist instrumentalist and liberal humanist root-narratives highlighting injustices and inequalities created or maintained by their ideals and means of implementation. In terms of state governance, critical and post-critical narratives emphasize the complicity of initiatives based on economic or humanist ideals in the creation and maintenance of poverty and marginalization in order to sustain exponential compound economic growth and improvements in quality of life that benefit only small sections of the world population. A critical narrative (still drawing on humanism) focuses its critique on the primacy of economic growth imperatives in nation state agendas, as well as the erosion of autonomy and accountability of governments to their own populations due to lobbying carried out by elites and closer relationships with corporations. This type of critical humanism attempts to expand the notion of consensual human progress to include the rights of those who have historically been marginalized working against patriarchy, sexism, class divisions, racism and hetero-normativity (e.g. approaches grounded on critical pedagogy).

Post-critical narratives claim that the consensus on human progress, based on modern development, is manufactured by elites and imposed around the world as a form of imperialism that eliminates other conceptualizations and possibilities of progress and development, therefore, they challenge the idea of social engineering. Post-critical narratives will tend to focus on rationality, complex subjectivities, difficulties of representation (of hybrid and fluid communities/identities), intersectional violence, and agonism (rather than

antagonism) in politics. Education, from critical and post-critical perspectives, is concerned with the transformation of society and the creation of a new social order more inclusive of or led by those who have been silenced or exploited by the current dominant system — it involves an emphasis on critical social analyses of unequal power relations, distributions of labour and wealth (emphasized in critical narratives) and the politics of representation and knowledge production (emphasized in post-critical narratives). Education, therefore, is about the creation of a critical mass of people who could see and imagine beyond the limitations and oppression of the current system in order to bring a different reality into being. Engagement with difference involves listening to and empowering those who have been marginalised and insisting on the need for spaces of dissent where other alternatives can emerge. The World Social Forum, the Occupy Wall Street Movement, the Idle No More Movement in Canada, and the occupation of the Syntagma square in Athens are examples of initiatives based on critical narratives in civil society. Several educational initiatives inspired by anti-colonial, feminist and anti-oppressive movements since the 1960s also enact critical humanist ideals.

Through education in contemporary metropolitan and industrialised societies people are exposed to different degrees to the three configurations of thinking described so far. The common theme of social change as social engineering in the three configurations is also not a coincidence. All these narratives can be traced to common roots in the Renaissance, the Industrial Revolution, the Reformation, European colonialism and resistance to colonialism, and, particularly, the European Enlightenment. However, since these cultural, social and economic transitions have framed our ideas of what is good, ideal and normal, it is important to acknowledge our constitutive blindness to other forms of seeing, knowing and being in the world that do not fit what we can recognize through the frames of references we have become used to.

For this reason, I presented the fourth option "Other(s)" as a question mark, something that cannot be easily captured by our conditioned senses: non-anthropocentric, non-teleological, non-dialectical, non-universal and non-Cartesian possibilities. For people over-socialized in the first three options (i.e. most of us who have been schooled), these possibilities would be extremely difficult to even begin to identify or to experience. Thus, it may be more useful to present them as absences rather than categories. The closest and most intelligible example that I have of an "Other" narrative is that of a global education centre in Pincheq, a tiny village between Pisac and Cuzco in Peru (see below).

Even though their principles for global education may seem self-evident and understandable, a deeper experiential cognitive-relational engagement with the metaphoric ontologies of that region would be necessary to unlock contingent meanings that are not obvious in what we can represent in writing (see Andreotti, Ahenakew & Cooper, 2011, 2012). I use this here to illustrate the limited nature of our interpretations (that always rely on inherited concepts) and the complexity and difficulty of translating and representing these worldviews outside of their contexts (e.g. if you think you "understand" this, think again), both of these preoccupations are key to critical literacy.

The Apu Chupaqpata Global Education Centre's Global Education Principles are:

1. The entire planet Earth (i.e. Pachamama) is my home and country, my country is my mother and my mother knows no borders.
2. We are all brothers and sisters: humans, rocks, plants, animals and all others.
3. Pachamama is a mother pregnant of another generation of non-predatory children who can cultivate, nurse, and balance forces and flows, and who know that any harm done to the planet is harm done to oneself.
4. The answers are in each one of us, but it is difficult to listen when we are not in balance, we hear too many different voices, especially in the cities.
5. The priority for life and education is balance: to act with wisdom, to balance material consumption, to learn to focus on sacred spiritual relationships, to work together with the different gifts of each one of us, with a sense of oneness. Our purpose is to learn, learn and learn again (in many lives) to become better beings.
6. There is no complete knowledge, we all teach, learn and keep changing: it is a path without an end. There is knowledge that can be known and described, there is knowledge that can be known, but not described and there is knowledge that cannot be known or described.
7. Our teachers are the Apus (the mountains-ancestors), Pachamama, the plants, what we live day by day and what has been lived before, the animals, our children, our parents, the spirits, our history, our ancestors, the fire, the water, the wind, all the different elements around us.
8. The serpent, the puma and the condor are symbols of material and non-material dimensions, of that which can be known, of that which cannot be known or determined, and of the connections between all things.

9. The traditional teachings of generosity, of gratitude, and of living in balance that are being lost are very important for our children — it is necessary to recover them.
10. The world is changed through love, patience, enthusiasm, respect, courage, humility and living life in balance. The world cannot be changed through wars, conflicts, racism, anger, arrogance, divisions and borders. The world cannot be changed without sacred spiritual connections (Apu Chupaqpata Global Education Centre, 27/07/2012).

CONCLUSION

I started this article with an overview of the ways I have used critical and transnational literacies in global citizenship and development education, particularly in the context of teacher education. I offered examples of how critical and transnational literacies may trigger new questions and directions in relation to global and development education in terms of how we can move beyond repeated problematic patterns of thinking and engagements and how we can start to approach increasing complexity, uncertainty, plurality and inequality in contemporary societies. I emphasized the importance of intellectual depth, of multiple and complex social analyses and of making these analyses accessible to different communities in order to build a strong foundation for the field. In the last part of the article, I presented a new heuristic that traces assumptions in three common sets of narratives in education and that frames a fourth set of narratives as a question mark, something that the related fields of global and development education should further engage with to pluralize knowledge in the present in order to pluralize the future.

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NARRATIVES OF GLOBALISATION AND THEIR IMPLICATIONS FOR EDUCATION

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ABSTRACT

This paper begins by noting the way in which education as a disciplinary field is highly dependent on concepts that have their origins in other spheres of knowledge. It draws attention to the deployment by international agencies of terms that can be applied across a range of disciplines and to a growing tendency among developed countries to conceptualise their educational priorities in similar forms of discourse. However, it is also noted that pressures to converge are, to some extent, offset by local values and traditions which serve to maintain degrees of divergence. The paper then focuses more sharply on the various dimensions of globalisation which have implications for education, drawing attention to definitional problems and to the malleable character of the territory. This is followed by two contrasting sections, one looking at positive narratives of globalisation in education, the other taking a more critical perspective. It is concluded that while globalisation as a concept has some explanatory power, the purposes to which it is put by different agencies require careful interrogation. Furthermore, the time may come when its value in policy documents diminishes and new discursive forms may emerge. In the meantime, education professionals should seek to develop greater narrative agency in interpreting the language of globalisation.

KEY WORDS

Policy Discourse; Cultural Identity; Teacher Agency.

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Narratives of Globalisation and Their Implications for Education

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INTRODUCTION

Education as a disciplinary field draws heavily on concepts and principles which have their origins in other forms of knowledge. Even concepts which might be regarded as central to education — such as curriculum, assessment and pedagogy — depend on understandings derived from other disciplines. Thus, for example, debates about the form and content of the curriculum are informed by insights from philosophy and sociology about the nature and structure of knowledge and the cultural value attached to a range of intellectual and practical skills. Again, decisions about the most appropriate forms of assessment are influenced by psychological evidence about learning processes and motivation, as well as by statistical techniques that can refine the way in which results are calculated and presented. And in the case of pedagogy, what happens in classroom exchanges between teachers and pupils has to take account of legal and ethical arguments about professional conduct, human rights and fair treatment. In each case, the educational response is framed within a wider context which introduces concepts whose explanatory value may derive from other spheres of activity.

When it comes to considering the broad aims of education, the contribution of ideas which have their origins in other fields is even more marked.

In recent years educational policy has invoked a number of concepts which have resonances across a wide range of social and political debates. These include social capital, citizenship, leadership and globalisation, all of which have featured as key principles in policy documents aimed at international audiences. Field (2003) has shown how organisations such as the World Bank invoke social capital in discussions about obtaining the best return for policies designed to alleviate poverty and improve educational outcomes. In the case of leadership, the Organisation for Economic Cooperation and Development (OECD) has produced two influential policy documents (OECD, 2008a, 2008b) which recommend a particular approach to the management of schools. Again, the Eurydice Network of the European Commission has encouraged the promotion of education for citizenship across thirty-six countries (Eurydice, 2012).

The ways in which certain key terms come to dominate public debate and professional exchanges have been the focus of discourse analysis, a technique which seeks to illuminate the inter-relations between language, knowledge and power (Fairclough, 1989, 1992). Powerful forms of discourse are usually shaped into narratives, explanatory accounts that try to make sense of social, cultural and political developments. Given the complexity of the modern world, there are inevitably competing and conflicting narratives and some gain greater ascendancy than others. An important question to consider is what leads some accounts to be adopted as convincing versions of events while others are marginalised. Is it that the successful narratives have a stronger knowledge base and take more account of the evidence? Or is it because those promoting them have powerful voices and enjoy narrative privilege, and thus can write and speak with seemingly greater authority than the advocates of counter-narratives (Bamberg & Andrews, 2004)? And what are the lines of influence in the transmission of dominant narratives: do they invariably proceed from economic and political spheres of activity to shape thinking in public services, such as education?

These questions will arise again in later sections which examine positive and negative narratives of globalisation in education. An extended discussion of narrative *methods* lies outside the scope of this paper but much has been written about what has often been referred to as the "narrative turn" in social sciences (see, e.g., Andrews, Squire & Taboukou, 2013; Clough, 2002; Riessman, 2008). This has a number of notable features: a rejection of the notion that language is neutral and objective; an interest in the causes and

chronology of discursive shifts; and an interdisciplinary approach that does not draw on a single theoretical orientation.

The commonality of much policy discourse in education can itself be regarded as a form of globalisation. Pasi Sahlberg has referred to a Global Education Reform Movement (GERM) which seeks to steer countries with distinctive educational traditions in a common direction (Sahlberg, 2012). Its features include standardized curricula and performance standards, test-based accountability systems and the use of corporate management models. These tend to be reinforced by the Programme for International Student Assessment (PISA) carried out periodically by the OECD, comparing results in different countries for reading, mathematics and science: sixty-five countries participated in the 2012 data collection, in which the best results were achieved by Shanghai, Singapore, Hong Kong, South Korea and Japan, with European countries doing less well. The publication of such information has political consequences, with governments seeking to improve their country's ranking by pursuing similar policies to those nations which shine. However, as Lingard and others have pointed out, cultural diversity means that it is not simply a matter of transplanting a winning formula into a different context: the specificities of particular nation-state responses also have to be taken into account (Lingard, 2008). For example, within the UK, both England and Scotland show up as middle-ranking performers in the PISA results and while both have employed some of the neo-liberal discourse associated with the Global Educational Reform Movement, the secondary education systems in the two countries are markedly different. Scotland has stuck with its all-through comprehensive system, first introduced in 1965, while England has encouraged much more diversification, promoting "free schools" and "academies" which are independent of local authority control. So the convergent pressures deriving from globalisation need to be set against localised divergent pressures which may have deep historical and cultural roots. As Anthony Kelly observes: "The growing international pressures of globalisation affect practitioners in unpredictable and different ways, so the development of national policy is tied to the process of translating global trends to local contexts" (Kelly, 2009, p. 51). This is sometimes referred to as "vernacular globalisation", a process that explains "the ways in which local sites and their histories, cultures, politics and pedagogies mediate to greater or lesser extents the effects of top-down globalisation" (Rizvi & Lingard, 2010, p. 65).

Globalisation can be viewed as a "grand narrative": that is, an attempt to offer a general explanation of diverse changes affecting many spheres of social action. However, the complexity and pace of the modern world means that traditional ideas of what constitutes a narrative are no longer adequate. Richard Sennett observes:

> If the well-made plot has gone out of fashion in fiction, it is a rarity in ordinary life: life histories are seldom shapely. In ethnography, we are indeed less concerned with how coherent are the stories people tell us than with the effort of our subjects to make their experiences cohere. This is not a one-shot effort. Frequently a subject will retell and reorganize an event, sometimes taking apart a seemingly logical story into disconnected bits, in order to see what lies beneath the surface (Sennett, 2006, p. 188).

Sennett is here referring to individual life histories, personal narratives of everyday life covering family, work and community. When the insight is extended to narratives which seek to explain events on a larger scale, and show how they impact in many different contexts, the impossibility of producing a single story that covers all the forces at work becomes apparent. Globalisation emerges as a concept that has many different layers and dimensions, some of which point in different directions. That is why it is necessary, in Sennett's terms, to look at the 'disconnected bits', to "reorganize" the constituent parts, and "retell" particular episodes. To adapt his analogy with fiction, the story of globalisation has many plots and sub-plots, a cast of characters that are not easily classified as heroes or villains, multiple thematic layers and many tangled narrative threads. It is not an easy read and the ending is left unresolved. As a starting point, it is necessary to identity some of the key components which can be used in the assembly of narrative constructions.

DEFINING THE TERRITORY

"Globalisation" is a term that has been appropriated by people working in many diverse fields, leading to a multiplicity of competing definitions. Fairclough offers a comparatively simple account when he defines it as "The contemporary tendency for economic, political and social processes and relations

to operate on an increasingly global scale" (Fairclough, 2003, p. 217). He adds a number of important qualifications: first, that the concept is contested; secondly, that some parts of the world remain marginalised; and, thirdly, that although the trend has intensified in recent years, it should be seen as part of a longer-term process involving a "re-scaling" of relations between global, regional, national and local levels of operation. These qualifications introduce complexities which are partly reflected in an alternative definition proposed by Steger, after reviewing a number of other attempts:

> Globalisation refers to a multidimensional set of social processes that create, multiply, stretch and intensify social interdependencies and exchanges while at the same time fostering in people a growing awareness of deepening connections between the local and the distant (Steger, 2003, p. 13).

One of the problems that arise from any attempt to offer a fully comprehensive definition, expressed at a high level of generality, is that its application to particular fields, such as education, may not be immediately apparent. For this reason, it will be useful to look briefly at a number of inter-related dimensions of globalisation whose relevance to education can be demonstrated.

Economic globalisation is often seen as the fundamental driver of the whole process. It refers to the various ways in which economic exchanges have been transformed by new models of conducting business, including: the speed of share dealings and banking transactions; international trade agreements; common currencies; the expansion of multinational companies; and the ease of transferring sites of production and recruiting cheaper labour forces (see Stiglitz, 2003, 2007). The biggest players, such as oil and information technology companies, can exert a degree of power and influence that is equal to, or sometimes greater than, nation states. Their loyalty is to the global market and its potential to generate profits, rather than to any particular country. Company headquarters can be moved quickly if there are taxation benefits to be gained. There are clear consequences for patterns of employment, demographic movements and national identity. Within the UK, for example, people living in Scotland (some of whom will have originated elsewhere) may think of themselves as Scottish, British, European, or even as World Citizens within a reconfigured global environment. Educational systems have to prepare learners for employment opportunities that are very different from

those available to earlier generations. As well as some understanding of the changed economic landscape, they are expected to acquire the kinds of skills valued by employers, such as flexibility and teamwork.

These trends have accelerated at a time when the old ideological divisions between capitalism and socialism were severely weakened following the collapse of the communist bloc in 1989. Market thinking quickly gained ascendancy and led to the application of private sector models to public sector institutions. This was evident in an increased emphasis on efficiency, measurable outputs and value for money, and the introduction of corporate approaches to the management of public organisations such as hospitals and schools. Even in "left-oriented" political parties, economic discourse became the "natural" way to describe the operations of agencies which had previously been described in welfare terms (see Fairclough, 2000).

Political globalisation refers to the growth in forms of political organisation above and beyond the nation state (Baylis, Smith & Owens, 2013). Examples include transnational agencies of a political, military, economic and environmental kind, such as the European Union (EU), the World Health Organisation (WHO), The North Atlantic Treaty Organisation (NATO) and the United Nations (UN). Political globalisation raises difficult questions about democratic accountability and the location of power. Concerns have been expressed about decisions being made by a global elite without being subject to proper democratic scrutiny. Within the UK, for example, there are frequent arguments about the extent to which the parliament in London has ceded power to the EU in Brussels. Defenders of political globalisation would argue that international alliances enable more effective action to be taken in relation to problems that are not confined to one country. More controversially, they might also argue that political globalisation has the potential to bring some of the benefits of advanced democracies to nations ruled by undemocratic governments. An example might be the UN Convention on the Rights of the Child which can put pressure on oppressive regimes to improve educational facilities and act against various forms of child exploitation.

Education has been affected by political globalisation in a number of ways. The influential role of the Organisation for Economic Cooperation and Development (OECD) in setting cross-national agendas for education and developing performance indicators enabling international comparisons to be made has already been noted. In higher education, the Bologna Declaration, first signed

in 1999, now includes 47 countries committed to the creation of a European Higher Education Area facilitating academic exchange and seeking to ensure comparability of qualifications and standards. And as will be shown later, policy ideas in education have become tradeable commodities promoted by international alliances involving governments, private companies and 'philanthropic' organisations. Critics of these developments argue that they lead to bureaucratic conformity and diminish the distinctiveness of national educational traditions.

Cultural globalisation raises contentious issues about sameness and difference (Hopper, 2007). One interpretation emphasises a trend towards standardisation of taste, linked to consumer demand, in things like fashion, popular culture, music, film and television. This has been referred to as the "McDonaldization" of society (Ritzer, 2000), whereby similar products are available on a global scale. Critics see this as evidence of oppressive capitalism which squeezes out the richness and diversity of indigenous cultural forms. A more positive interpretation is that the process enables goods and services which had previously been available only to privileged groups in developed countries to be distributed more widely. It is also argued that increased opportunities for travel mean that people have access to, and can experience directly, greater variety in customs, attitudes and values. This has the potential to increase understanding of different belief systems and to free people from the constraints of their own culture. However, if the conclusion drawn is that all values are relative — that there is a "market" in belief systems as well as goods and services — it creates particular problems for schools, which have traditionally been expected to represent clear standards and transmit values that support a sense of national identity and tradition. The problem is further complicated by demographic movements which bring together youngsters who, initially at least, do not share a common language and represent different ethnic and religious backgrounds. How can a balance be struck between celebrating difference and sharing common aims?

Technological globalisation refers to the many changes brought about by the rapid development and use of information technology in its various forms. These have transformed the processes through which business is conducted and financial transactions are carried out. The internet has brought about major alterations in the way individuals conduct their lives, whether in

terms of the purchase of goods and services or in terms of their personal relationships. Technology can overcome the constraints of time and distance, thus accelerating the pace of modern life. Again, governments can use the internet to release information, promote policies and engage in propaganda exercises. Similarly, pressure groups can employ the new technology to share ideas, organise campaigns and set up websites to provide a forum for ideas that might not otherwise get into the public domain. As the sales of printed newspapers continue to fall, rapid electronic forms of communication become the principal source of news for many people.

The educational effects of technological globalisation are both positive and negative (Selwyn, 2012). Access to "information" is not the same as access to knowledge, and students need to learn to distinguish between reliable and unreliable sources and to avoid the temptations of plagiarism. Conventional schools, colleges and universities which in the past had a virtual monopoly of knowledge, acting as its gatekeepers, now find that there are all sorts of other competitors straying into their territory. Part of the response has been the growth of online courses or, more commonly, the supplementing of conventional courses with access to online material. Many agencies other than schools, colleges and universities — e.g. public bodies and voluntary organisations — now see themselves as having an educational role. This raises interesting questions about knowledge generation and knowledge transmission and could, in the longer term, require a major reconfiguration of the way traditional educational establishments operate. If they fail to take sufficient account of the digital revolution outside their walls they could come to be regarded as archaic institutions, no longer fit for purpose.

Environmental globalisation covers a range of issues (Newell, 2012). These include the depletion of natural resources (oil, gas, coal) and the effects of increasing demand for energy consumption on global warming and environmental pollution. Fierce debates surround the merits of alternative sources of energy: wind farms, whether sited onshore or at sea, affect the landscape and meet only a small proportion of the total energy required; nuclear power carries high risks, as disasters in Russia and Japan have shown, and the disposal of waste presents huge, long-term problems. Environmental charities, such as Greenpeace and Friends of the Earth, campaign for safe, sustainable forms of energy and draw attention to the effects of economic exploitation of the environment, such as the destruction of rainforests in South America by log-

ging companies. They argue for an approach that respects both the culture and lifestyle of indigenous populations and the habitat of animals, birds and insects. These arguments have direct relevance to patterns of living in developed countries, affecting such diverse issues as carbon emissions from cars and aeroplanes, the design of houses (to improve levels of insulation and reduce energy consumption), and approved models of farming (to limit the use of harmful chemicals and ensure land conservation).

Educational responses to these questions have proved controversial. Those who argue that the future of the planet is at stake, and that extreme weather is evidence of the hazards that a careless attitude toward the environment can cause, are accused by critics of being unduly alarmist. Environmental campaigners respond by saying that there has been a lack of political will (particularly by the major players, the United States and China) to address the scale of the problem. They also charge multinational companies with pursuing short-term profits at the expense of long-term environmental consequences. Such conflicting interpretations require delicate handling in a classroom context. It is certainly the case that they need to be addressed: young people are the generation who will have to respond to the environmental legacy left by their elders and it is only right that they should be made aware of the social, scientific and ethical arguments surrounding the disputes.

The overall effect of these various dimensions of globalisation is to create social disequilibrium. They accelerate the pace of change and destabilise traditional patterns of individual, institutional and governmental action. All of the forms of globalisation that have been described have the potential to impact on systems of education. It is not surprising, therefore, that the global dimension has come to feature prominently in educational discourse. But, given the political arguments surrounding many of the developments that have been described, the policy implications are far from straightforward. The evidence can be interpreted in various ways, leading to differing accounts of how schools should respond. In the sections that follow two alternative narratives of the educational globalisation will be offered, the first relatively positive, the second more critical. Thereafter, the explanatory value of globalisation as a concept which can inform educational policy will be assessed: will it continue to shape thinking and influence policies, or are we near the point at which it will be abandoned in favour of other conceptual tools?

POSITIVE NARRATIVES OF GLOBALISATION IN EDUCATION

Boyd (2008) refers to the global dimension of education as "the core of all learning, encompassing what it is to be human and to live, interdependently, with all other humans on the planet" (Boyd, 2008, p. 161). He goes on to list some of the subjects which should feature in a curriculum which reflects this: climate change and global warming; poverty in the developing world; war, terrorism and conflict resolution; fair trade and international development; environmental sustainability. The challenge for teachers, he suggests, is to establish meaningful links between local and global issues, showing that what happens at a "macro" level internationally can have repercussions for communities which, on the face of it, may seem to have little in common: in other words, the reach of globalisation is powerful and extensive, and we all have a responsibility to engage with it. Boyd also emphasises that, from an educational perspective, the process of engagement is just as important as the subject matter: how learners "deal with the evidence, how they evaluate sources of information, how they form judgements and how they develop their value positions (and accommodate others')" (ibid., p. 173) are critical issues in determining the worth of the globalised curriculum.

Another positive reading of globalisation in education starts from the view that schools have traditionally operated as "closed systems", dominated by professionals who have been resistant to outside influences. This inward-looking approach, it is implied, is no longer tenable, given the rapid economic, political and technological changes that have taken place outside schools (see Lingard, 2006). Technology in particular opens up opportunities for schools to create links which cross national boundaries. The best-known example of an attempt to reposition schools as 'open' institutions is the Global Classroom project, which started officially in 1996 and in its first eight years included schools from Australia, the Czech Republic, England, Germany, Hong Kong, Japan, Scotland, South Africa, Sweden and the USA. The project involved students as researchers, visiting schools in other countries for periods of four to six weeks, living with host families and keeping a diary of their experiences (see Macbeath & Sugimine, 2003). As might be anticipated, the experience was enlightening and challenging, requiring students to engage with unfamiliar attitudes, practices and cultural norms. Some prior assumptions had to be "unlearned" and their sense of identity was subject to adjustment. One of the key findings of the project, confirming the need for an outward-looking

approach, was that while schools matter, families and communities matter more. The major limitation of the project was that the experience of finding out about other parts of the world at first hand could only be offered to a restricted number of students.

International charities have also seen advantages in increased global awareness. Philanthropy has become globalised through public awareness of natural disasters and the human consequences of civil wars. Dramatic film reports and clips on social media sites give immediacy to such events as typhoon Haiyan in the Philippines or the fighting in Syria, strengthening appeals for aid to help the victims. The long-established UK charity Oxfam has been a leading campaigner in the promotion of global citizenship, producing a *A Guide for Schools* (Oxfam, 2006) which, among other aims, sees education as "a powerful tool for changing the world, especially in relation to such issues as poverty, denial of rights, and the inequitable and unsustainable use of resources" (Oxfam, 2006, p. 3). The document goes on to define the Global Citizen as someone who:

— Is aware of the wider world and has a sense of their own role as a world citizen.
— Respects and values diversity.
— Has an understanding of how the world works.
— Is outraged by social injustice.
— Participates in the community at a range of levels, from the local to the global.
— Is willing to act to make the world a more equitable and sustainable place.
— Takes responsibility for their actions.

(Oxfam, 2006, p. 3).

Critics of this approach come from two directions. Some would see it as over-politicising the curriculum by encouraging attitudes and actions which express an ideological position that not all parents would support. Others would say that what is needed is, in fact, a more committed attack on those aspects of globalisation which represent the spread of market capitalism, including the exploitation of cheap labour and the depletion of natural resources in poor countries. Certainly there is a robust debate within many of the leading international charities about the most effective position to adopt in pursuit of their philanthropic aims, ranging from a pragmatic

compromise with the forces of economic and political power to a strong ethical defence of liberal democratic principles. Supporters of the educational approach taken by Oxfam would argue that the teaching of controversial issues in the classroom is an essential part of the educational process and that, while it raises sensitive questions about the role of the teacher and the most appropriate teaching methods, it has the potential to engage the interest of learners in a way that a supposedly "neutral" curriculum cannot (see Cowan & Maitles, 2012).

What this debate does highlight, however, is that the economic and political dimensions of globalisation require educators to enter highly contested territory, which involves not only curriculum content but also policy formation and the role of teachers. With regard to curriculum, Dale (2007) has argued that the curricular implications of globalisation have received insufficient attention. He suggests that this may be because educationists tend to have an "internalist" view of the subject matter of learning which leads them to focus rather narrowly on relatively minor adjustments to traditional patterns and perhaps blinds them to the gradual impact of strong "externalist" pressures. He suggests that the Global Knowledge Economy, which sees learning in terms of its utility and commercial value, has caused a significant shift in favour of "competences" of various kinds at the expense of content knowledge. Similarly, Young (2012) regards the downgrading of traditional forms of knowledge as a source of serious concern.

The policy aspects will be explored in the next section. As far as teacher education and teacher development are concerned, a number of writers see possibilities in using globalisation to broaden the scope of pre-service and in-service courses. Shah and Brown state that "our understanding of a critical global thinker extends to teachers as much as it does to students" (2010, p. 40) and some research projects have focused specifically on how to support teachers in engaging with the conceptual issues and practical challenges which globalisation presents (see Wisely, Barr, Britton & King, 2010). This can be seen as an attempt to respond to the criticism advanced by Bottery and Wright (2000) who had claimed, referring to the challenges of globalisation, that schools did little to help teachers to cope with the changes or to gain a better understanding of the processes at work. Instead they encouraged teachers to focus on practical classroom issues ("How?" questions) and discouraged them from exploring deeper conceptual issues ("Why?" questions). This is one manifestation of a recurring debate about the relative

importance of intellectual understanding and craft skill in the formation of teachers (Sachs, 2003).

Finally, it should be noted that not all positive narratives of globalisation proceed from a desire to uphold liberal values or promote humanitarian concerns. A much more hard-headed approach, based on particular examples in different parts of the world, is taken by James Tooley, who accepts that they key drivers of globalisation are essentially economic and then goes on to pose the question *Could the globalisation of education benefit the poor?* (Tooley, 2004). He concludes that "the profit motive may be an important motivator to educational entrepreneurs to create schools in the first place" and that if this leads to the setting up of schools where none exist (or where state provision is inadequate), and that if some of the profits are invested in improved infrastructure, the results may be benign rather than sinister (ibid., p. 24). A rather different view of private-sector investment emerges from the work of Stephen Ball (2012): this will be discussed in the next section.

CRITICAL NARRATIVES OF GLOBALISATION IN EDUCATION

Before focusing on the main line of attack by critics of globalisation — that is, the social and political consequences of the economic processes which underpin it — note should be taken of concerns about its impact on human identity. The relationship between the personal-individual and social-cultural components of identity is important (Jenkins, 1996) and it can be argued that the psychology of individuals and groups is being altered in fundamental ways by the global forces at work. Whereas in the past, identity for many people was defined in terms of place, social position and cultural norms, these "markers" are now much harder to specify. Developments in commerce, ready access to information and ideas through technology, and the possibilities of social and geographical mobility, tend to promote global similarities at the expense of local differences. Viewed positively, this can be construed as an enhanced opportunity for people to escape the limitations (in some cases the oppressions) of their local circumstances. But viewed negatively, it can be presented as the loss of rootedness, the removal of the very features which help individuals to make sense of who they are. For some, this can be a profoundly unsettling experience, particularly if they have had to flee from their country of origin because of civil war or political oppression. Castells (2010) has explored

the complex ways in which personal, cultural, religious and political identity inter-relate. At a political level, state-sponsored identity, defined in terms of citizenship, can either accommodate the diversity of cultural and religious affiliations, or seek to suppress them. Even in "democratic" societies, cultural variation — evident, for example, in minority languages — may be subject to conformist pressures. One effect of cultural globalisation is that certain languages (English, Chinese, Spanish, French) have come to dominate international communication while others have been marginalised or even risk extinction. Add to this the role of global media companies in saturating public consumption with what Steger calls "formulaic TV shows and mindless advertisements", and the potential for reshaping "the structure of desires around the world" is considerable (Steger, 2003, p. 76).

The reshaping of identity that some aspects of globalisation bring about has significant consequences for education. Schools have traditionally been seen as important institutions within a community, providing safety and security for young people and giving them a sense of belonging. But if the influence of the local "community" (see Delanty, 2003) is weakened by the various dimensions of globalisation — not least the virtual 'community' of the internet — then that requires some re-thinking of what is entailed in the promotion of "personal development" as an educational aim. It is partly for this reason that notions of citizenship education now extend beyond political literacy and social activism within a single nation state to include awareness of global developments (Humes, 2002, 2008; Peters, Britton & Blee, 2009; QCA, 1998).

The main line of attack for many critics of globalisation is that it depends on a particular, neoliberal view of economic relations and wealth production. This, they argue, leads to the concentration of power and capital in the hands of an international elite, who control markets, shape laws, influence governments and exploit labour in ways that subvert democratic processes. Among the undesirable consequences are an increased divide between rich and poor (both within and between countries), unhealthy alliances between private companies, politicians and public officials, and the promotion of an oppressive uniformity in goods, services and cultural values. These concerns feature prominently in the arguments of the various strands of the anti-globalisation movement which champion democratic representation, human rights, fair trade and sustainable development. The most visible manifestations of anti-globalisation occur when protests are arranged to coincide with meetings of organisations which are perceived to be powerful engines of globalisa-

tion, such as the World Trade Organisation, the International Monetary Fund and the World Bank. The annual meeting of the World Economic Forum at Davos in Switzerland has also been a target. While these protests achieve a certain amount of publicity, they also demonstrate that the anti-globalisation movement is very diverse, with sub-groups pursuing different agendas: third world debt, environmentalism, child labour, anti-Americanisation and tax avoidance by multinational companies all feature in the discourse. Somewhat ironically, in planning and mounting their campaigns, the protesters make effective use of social media and the internet, the main instrument of technological globalisation.

Stephen Ball, in his analysis of international trends of educational policy (Ball, 2012), has introduced a further dimension to the critique of globalisation. His starting point is a definition of neoliberalism taken from Shamir:

> [N]eoliberalism [is] a complex, often incoherent, unstable and even contradictory set of practices that are organized around a certain imagination of the "market" as a basis for the universalisation of market-based social relations, with the corresponding penetration in almost every single aspect of our lives of the discourse and/or practice of commodification, capital-accumulation and profit-making (Shamir, 2008, as cited in Ball, 2012, p. 3).

Ball argues that there are powerful cross-national networks consisting of businesses, philanthropists and governments which promote a particular vision of how education should be re-formed. Citing the work of Rizvi and Lingard (2010), he offers an interesting description of what is taking place:

> New policy networks and communities are being established through which particular discourses and knowledge flow and gain legitimacy and credibility and "these processes are located within a global architecture of political relations that not only involves national governments but also [inter-governmental organisations], transnational corporations and [non-governmental organisations]. Policies are developed, enacted and evaluated in various global networks from where their authority is now partly derived" (Rizvi & Lingard, 2010, p. 338). These are new policy assemblages with a diverse range of participants which exist in a new kind of policy space somewhere between multilateral agencies, national governments, [non-governmental organisations], think-tanks and advocacy groups, consultants, social entrepreneurs

> and international business, in and beyond the traditional sites and circulations of policy-making (Ball, 2012, pp. 9-10).

He then elaborates his thesis by arguing that "Neo-liberalism is insinuating itself into almost every aspect of contemporary social life" (Ball, 2012, p. 145). Furthermore, "neo-liberalism is producing (…) new kinds of social actors, hybrid social subjects who are spatially mobile, ethically malleable, and able to speak the languages of public, private and philanthropic value" (ibid., p. 145). He draws attention to the operations of international "edu-businesses" such as Cambridge Education and Pearson Education, the world's largest education company. The marketing of curriculum and assessment materials by western "knowledge companies", to countries which are seeking to improve their educational provision, is now a significant source of revenue. But, Ball argues, the process goes much further than merely providing teaching and learning materials. It extends to the promotion of policy ideas, the selling of market "solutions" to problems of educational development and social inequality. This involves particular forms of discourse — such as quality assurance, inspection, leadership and accountability — which are said to guarantee "improvement". Educational policy is thus treated as a marketable commodity, a product to be branded, packaged and sold in the same way as commercial goods. But, as the historical limitations of western educational systems themselves demonstrate, policy ideas cannot work in isolation. They depend on stable government, an efficient institutional infrastructure and a professional teaching force, conditions that may not apply in the countries on the receiving end of the policy advice.

Two particular features of Ball's account invite comment: its significance for democratic decision making and the ethical issues which it raises. The more power policy entrepreneurs acquire — through their access to officials and politicians, their involvement in international networks and "think-tanks", and their successful negotiation of lucrative contracts — the more traditional democratic processes of decision making within "independent" nation states are undermined. This is similar to, but potentially more sinister than, arguments about the loss of sovereignty involved in membership of the European Union. At least member states of the EU conduct elections to the European Parliament and there are established mechanisms of legal and financial accountability which are open to inspection. Not everyone is satisfied with these mechanisms — as the growth of the UK Independence Party

demonstrates — but they have a constitutional basis that is lacking in many of the global operations described by Ball. In this sense some aspects of educational globalisation can be seen as anti-democratic.

The second point arises from Ball's reference to the "ethically malleable" character of the "new kinds of social actors" produced by neoliberalism. A well-functioning democracy depends on an informed electorate who can rely on truth-seeking institutions. But the principal motivation of the "new kinds of social actors" is the commercial potential of international markets for educational materials and policy ideas, rather than any elevated notion of global enlightenment. Moreover, some of the existing agencies, such as universities, which could be expected to defend traditional notions of knowledge and truth when they might be seen to be under threat, have themselves been drawn into the neoliberal project. There is now a substantial body of literature which suggests that universities have been compromised by various forms of government control, by the way in which research is commissioned, funded and disseminated, and by the corporate culture embraced by university leaders (see Bailey & Freedman, 2011; Collini, 2012; Evans, 2004). Collini, in a provocative article entitled "Sold Out", castigates universities for the 'crazed market vision' which some university managers have adopted, leading them to value marketing more than teaching. He goes on to suggest that the true value of scholarly labour is being squeezed out in favour of the exchange-value of learning as a commodity. The political aim is to change the character of universities, "to make them conform to market ideology. Universities must be made into businesses, selling a product to customers" (Collini, 2013, p. 12). He also reports that one management consultancy firm has referred to the university sector as a "treasure island", implying that it is ripe for further exploitation.

The economic, political and social dimensions of globalisation are closely linked. What may at first seem like an issue that belongs to the grand stage of international politics and military power can be shown to pose significant challenges for the work of teachers. Andy Hargreaves (2003) has located education in the context of global insecurity, fuelled by disparities of wealth, ideological conflicts and the threat of terrorism. He cites Benjamin Barber who in his book *Jihad vs McWorld* argued that the future depended on a struggle between two opposing globalising forces, one representing the "bloody politics of identity", the other the "bloodless economics of profit" (Barber, 1995, pp. 6-7). The contrast could also be characterised as a contest between

fundamentalism, an unquestioning allegiance to the tribe, and consumerism, in which questions relating to the public good are submerged by the "logic" of market imperatives. Hargreaves observes:

> The paradox of globalization (…) is that economic globalization and homogenization lead many of those who cannot share in its benefits to turn inwards to culture, religion and ethnicity as alternative sources of meaning and identity (Hargreaves, 2003, p. 31).

He concludes that globalisation is "suffering from a vast morality deficit" (Hargreaves, 2003, p. 33). This does not mean trying to resist all of its manifestations, some of which have produced significant benefits. What it does mean, he argues, is that international economic organisations need to be balanced by equally strong social and humanitarian ones, reminding us that "the failure to promote the human as well as the economic side of globalization can carry a terrible price" (ibid., p. 34).

This interpretation clearly has a number of implications for the aims of schooling and the social role of teachers. Teachers need to prepare youngsters for a future in which there are many possibilities, uncertainties and risks. The threat of terrorism is one that affects many countries. What kinds of representation should that have in the curriculum, particularly in contexts where the class may include members of different ethnic and religious groups? Are there some subjects that are simply too sensitive to address, where even an attempt to adopt "procedural neutrality" (Stenhouse, 1975) is likely to be hard to maintain? If that is the conclusion, it raises difficult questions about how meaningful the aspiration to produce informed citizens can be. Citizenship education, if it is to be effective, must be prepared to tackle contentious issues concerned with race, religion and gender. It has to promote understanding of the historical and cultural reasons for conflict, some of which may not reflect well on the host country. It takes a highly skilled teacher to treat issues such as these in ways that connect meaningfully with, for example, both children who have a parent serving in the armed forces and those who belong to an ethnic minority and subscribe to a religion which the majority would label "fundamentalist".

What challenging cases like this highlight is the increasing complexity of the social role of teachers, partly brought about by globalisation in its various forms. No longer can teachers be regarded simply as agents of cultural

transmission from one generation to the next, passing on the accumulated wisdom of a particular educational tradition. Instead, they have to negotiate a hazardous landscape in which they are likely to encounter many areas of contestation. At the same time, they themselves are subject to political expectations which have been shaped by the dominant economic models of the age (see Maguire, 2002). Their work is described in terms of targets, outcomes and measurable results: they are expected to be increasingly accountable and subject to inspection regimes: their lessons have to be planned, monitored and evaluated (Bottery & Wright, 2000). There is a tension between the open-minded, exploratory forms of pedagogy which the teaching of controversial issues seems to require and the sharply defined, rather prescriptive approaches which now dominate many aspects of the curriculum.

CONCLUSION

This paper has contrasted two narratives of globalisation in education, one fairly positive, the other fairly negative. Neither is entirely consistent: there are tensions and competing interpretations within both. The difference between the two narratives is partly one of scale. For the most part, the positive narrative operates within a limited canvas, focusing on what can be done in schools and classrooms to address the challenges of globalisation. It is a pragmatic approach, acknowledging that there are powerful forces at work beyond the control of schools, but attempting to respond in ways that reflect some of the realities of what is happening and to raise awareness of their importance for learners, both now and in the future. Teachers, on this approach, act as mediators of the profound shifts that are taking place, trying to steer a constructive course through territory that no one fully comprehends.

The critical narrative focuses less on the day-to-day work of schools and classrooms. It attempts to address the big political and economic changes that are driving globalisation and asks fundamental questions about the motives behind the changes, how the process seems to be producing winners and losers, and the potentially sinister reconfiguration of conceptions of knowledge and truth. Teachers, on this interpretation, are placed in an uncomfortable position, expected to work in conditions that have been redefined by market models of their professional duties, which make it difficult for them to respond adequately to the curricular and pedagogic implications of

globalisation. Moreover, some policy developments are now taking place at a level beyond the nation state and are not subject to normal democratic processes which require consultation and partnership with a range of stakeholders. Schools and teachers are thus seen as relatively powerless players in a global process that traditional agencies cannot control. They will try to do their best for learners but the scope for genuine teacher agency is decidedly limited.

Fairclough (2003) has drawn attention to the different ways in which globalisation is represented in policy documents and statements by politicians. Sometimes it is presented as an inevitable development, at other times a project or a plan. In one of Tony Blair's speeches, analysed by Fairclough, it is seen as "a fact", a process "driven by people", and "a force for good" (Fairclough, 2003, p. 114). By contrast, critics see it as evidence of the march of international capitalism, a force for oppression, exploitation and injustice (see Rodrik, 2012). Does this mean that globalisation has become a fundamentally incoherent concept which should be abandoned altogether? Even if that were judged to be desirable, it cannot simply be willed. Powerful discursive forms, such as globalisation and global citizenship, have a life beyond the decisions of any individual or group. They are developed at a level of politics and ideology which can sweep aside academic or professional objections. What is likely, however, is that their utility value will have a limited shelf life and that they will eventually be superseded by other discursive forms. As Bauman has pointed out,

> all vogue words tend to share a similar fate: the more experiences they pretend to make transparent, the more they themselves become opaque. The more numerous are the orthodox truths they elbow out and supplant, the faster they turn into no-questions-asked canons (…) "Globalization" is no exception to that rule (Bauman, 1998, p. 1).

Where does this leave us? The concept of globalisation has certainly had some value in explaining and interrogating inter-related developments in economics, politics, technology, culture and environment, all of which have had significance for education. But, as has been shown, it is capable of being used to construct quite different narratives of the benefits and dangers of the transformations that are taking place. This suggests that there may come a point, perhaps in the near future, when the concept will have outlived its usefulness and may need to be replaced with something that is felt to have greater explanatory power or, at least, gives a better account of the complexities at work.

Such a development would be consistent with accounts of the way discursive changes take place. Fairclough has detected "a significant shift in the social functioning of language" and has argued that "attempts to engineer the direction of change increasingly include attempts to change language practices" (Fairclough, 1992, p. 6). As the negative associations of globalisation become more pronounced, it can be anticipated that its value as a policy concept will be diminished and it might be replaced by something regarded as more neutral. An earlier example of such a discursive shift might be the gradual replacement of references to "social class" in educational policy documents by the term "social inclusion" which seeks to remove the divisive associations of the earlier term. However, while the term globalisation continues to have some utility value for policy makers, education professionals need to remain alert to the ways in which it is deployed. Sennett (2006) has argued for the importance of "narrative agency", that is the active engagement of those affected by powerful global forces in interpreting what is happening to them. This involves questioning and challenging the official narratives with which they are presented, and the language used to describe their roles and functions. This is particularly important in professional fields, such as education, which provide an important public service, essential to the constructive functioning of democratic institutions and processes. The "grand narrative" of globalisation should not be passively accepted but should be subject to critical interrogation.

Furthermore, it would be a healthy development if the teaching profession managed to find the intellectual space, not only to question the dominant discourses which policy makers employ to try to shape their work, but also to return to the big questions which all the great educators, from Plato to Dewey, have explored in their writings: questions about the state and the individual, authority and freedom, identity and values, rights and responsibilities, democracy and justice. This would open up a much broader landscape than the one which has dominated recent policy debates, where economic metaphors have gained ascendancy over all others. It would also have the attraction of making it possible to re-establish productive links with some of those other disciplines which have been so important in the development of educational thinking and practice (philosophy, history, sociology, psychology). What happens in the classroom should be understood, explained and justified in terms of the recurring perplexities of the human condition, and informed by knowledge emerging from the latest research, rather than determined by the ideological limitations of a particular moment in history.

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HUMAN CAPITAL, EDUCATION, AND SUSTAINABILITY

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ABSTRACT

Human capital theory remains a powerful influence in modern economics and within educational discourse. In this paper, the theory and its prevalence across European state education policy is explored and critiqued in a number of ways including its implication in an ethos which aims at maximising returns from resources. As such, the theory and its practical manifestations are inimical to the concerns of sustainability. The paper suggests that while the concept of "natural capital", in its focus on the need to preserve profitable natural resources for future benefit, does coalesce with sustainability discourse at points, more fruitful potential for the goals of sustainability lies in redirecting the aims of state education, away from a human capital theory orientation, towards a renewal of the social aims inherent in the original democratic ideals of liberal education.

KEY WORDS

Ecology; Economics; Schooling.

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Human Capital, Education, and Sustainability

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INTRODUCTION

Barely a decade ago it could be argued that education systems were one of the few instances where the nation state could still exert something like distinctive, independent control (Olssen, Codd & O'Neill, 2004), even in the face of globalizing tendencies in the economic, cultural, and political spheres, epitomised by the spread of multinational capitalism, Western cultural dominance, and the increased role of supranational agencies. That claim is more difficult to support today as various normalizing worldwide pressures increase, dominated by neoliberal thinking which, amongst other goals, aims to lock in education systems to the demands of global capitalism (Ball, 2012; Rizvi & Lingard, 2010). Nevertheless, it is still true that national education systems do retain a degree of individuality so that, even within the European Union, for example, there is little appetite for greater homogenization (Lawn & Grek, 2012). As a result, school systems have preserved something of a distinctive national flavour, at least across Europe.

However, the fashion for policy borrowing, travelling policy (Ozga & Lingard, 2007), and policy tourism (Whitty, 2012) within education, and the strengthening international role of global operators such as the OECD (Sellar & Lingard, 2013), for example, have contributed to considerable similarities

emerging between national education systems. The global reach of neoliberal ideas, a widespread belief in the key place of the so-called knowledge economy, and a concern amongst countries to present themselves as attractive as possible to multinational capital and investment, have contributed to this increase in significant structural convergence between these separate education systems. This development has been termed "vernacular globalization" (Lingard, 2000; Winter, 2012) to indicate the ways in which these global trends are translated into local national contexts, or given a local accent.

One of the most striking and prevalent ideological conceptualizations of education in current discourse is drawn from human capital theory, a seam of thought which can be seen to be foundational in the policy discourse evident in a huge number of national education systems (Gillies, 2011a). In this paper, this trend of conceptualising education as a form of capital investment, which repays individuals in improved employment opportunities and financial rewards and nation states in greater economic activity and growth, will be challenged as a significant barrier both to greater awareness of social and environmental sustainability and to greater environmental responsibility. The paper will begin by outlining the key features of human capital theory; it will then explore, through analysis of European state policy texts, the very significant place it is afforded within education systems internationally; then consider the strengths and weaknesses of this theory with specific reference to sustainability issues; and, conclude by sketching an alternative understanding of education (more specifically, schooling) which may offer some better hope for humanity and its environmental responsibilities.

HUMAN CAPITAL THEORY AND EDUCATION AS INVESTMENT

The dominant role of human capital theory in educational discourse, particularly in relation to the orientation of state education systems, does mean that it serves as a powerful globalizing influence. Its neoliberal vision sees it very much aligned with the activities of powerful framing organisations such as the World Bank and the OECD. It is no coincidence that the OECD, whose focus and *raison d'être* is economic development, should have become such an important shaper of state education systems through its publications

and the powerful PISA mechanism (Meyer & Benavot, 2013). As will be seen, the concept of the knowledge economy, and the associated conceptualisation of education as economically instrumental, are both heavily associated with the ideas of human capital theory. Much of what follows has been adapted from Gillies (2011a).

The origins of human capital theory can be traced to the work of a US labour economist, Jacob Mincer, who first used the concept nearly 60 years ago (Mincer, 1958), in a paper exploring income differentials in American society. Its main proponents, however, and those who more fully developed the theory, are two Nobel prize-winners, both associated with the Chicago school of neoliberalism, Theodore Schultz (1902-98) and Gary Becker (b. 1930).

At base, there are two foundational pillars to this theory, the first of which is concerned with theorising that differential income distribution can be best explained by establishing a causal connection between wages and individuals' levels of education (and training). Thus, in the early days of human capital theory, research centred on exploring the extent to which earnings could be linked to educational attainment. Longitudinal studies were undertaken which compared the earnings of high school graduates as opposed to college graduates in the USA (Mincer, 1958, 1974). The data appeared to suggest that, at the very least, there was a correlation between highest level of education experience and higher wages.

Schultz (1960, 1962), noting that college graduates earned more, argued that the costs of a college education could be understood as an investment which would later generate financial rewards in the form of comparatively higher wages. The costs of education included not just those of fees and living expenses but also the opportunity costs of foregoing earned income during college years. Schultz's work is marked by its clarity and accessibility, despite the quantitative basis to it and its mathematical modelling. He summarises human capital theory very succinctly, despite the sexist vocabulary of the age:

> I propose to treat education as an investment in man and to treat its consequences as a form of capital. Since education becomes part of the person receiving it, I shall refer to it as human capital (Schultz, 1960, p. 571).

Quantitative research data suggested that time and resources devoted to education and/or training, of various forms, generated a financial return over time so that individuals and their families could be interpreted as engaging

in these as a form of investment which would pay dividends later in the form of higher earnings. This new economic outlook therefore framed education as no longer comprising "consumption" but as investment (Blaug, 1976).

The second key pillar of early human capital theory is related to this finding. Whereas classical economics had tended to view the workforce in purely quantitative terms, human capital theory introduced a qualitative aspect. Education and training were seen as the most important ways in which the quality of the workforce could be enhanced. College graduates did not earn more by chance: it was because of the quality of their work that they earned more. Thus, education and training yielded broader economic returns than individual earning power. There were generic economic benefits for society which accrued from a well-educated and well-trained workforce. Just as individual choices about education and training could be understood in relation to judgements about likely returns on such investment, so at a national level the education system could be justified in the light of likely returns in the form of economic growth.

It was this second aspect of human capital theory that had the greatest political effect, as can be imagined. This simplified form of the theory, with its apparent linear certitude, was extremely attractive to politicians seeking an assured way of creating economic growth. The theory seemed to suggest that by improving the quality and reach of the education system and its outcomes, one could generate economic growth. Schultz (1962) supported this view with the example of the post-war recoveries of Japan and Germany, attributing this to their pre-existing status as well-educated nations with high levels of human capital. Becker (2002a) later argued a similar case in relation to the global recovery from the crash of 1987. Developing human capital was thus presented as an important way in which economies could grow, but also the means by which they could survive, or recover from, significant disruption and instability. Human capital seemed to offer remarkable powers in relation to both economic growth and resilience. Becker (1992) argued that, with the exception of the Warsaw Pact countries, human capital investment in the form of educational opportunities was central to those countries experiencing faster economic growth from the 1960s. In its appropriated form, the theory was thus held to be able to account for economic growth *per se*: "The Human Capital perspective (…) emphasises the direct impact of skill creation on productivity (…) skills are seen as essential determinants of national economic performance" (Olssen, Codd & O'Neill, 2004, p. 147).

Some theoretical criticism of human capital theory and the downturn and economic turmoil of the 1970s combined to cast doubt on its value, however. Schultz himself (1971) sought to clarify that because of the "long gestation period" between educational investment and economic return it was "absurd" to think that sudden crises in relation to inflation or deflation could be tackled by turning on and off the education tap. Gary Becker (1972, 1975, 1992, 1993, 2002a, 2002b), however, had sought to develop human capital theory in a particular neoliberal way. Concentrating primarily on individual decision-making in relation to personal educational investments, Becker fused the theory with rational choice theory and began to explore its explanatory potential in a whole range of social activities previously rarely the locus of economic theorising such as the family and marriage. It was this enhanced focus on the individual, on the power of individual choice, that chimed with the neoliberal politics of the Reagan and Thatcher eras. As Foucault (2008) argues, this represents a fundamental break with previous understandings. The worker moves from being an "object" of economic analysis to being an "active" economic subject (p. 223), and from being a partner in economic exchange to being an entrepreneur, an entrepreneur of the self: the self now being understood as capital, and so the producer and source of earnings — "(…) income cannot be separated from the human individual who is its bearer" (p. 226). Becker's analysis, therefore, shifted paradigmatically from economics in terms of a relational mechanism between things or processes within a social structure, to "the analysis of the internal rationality, the strategic programming of individuals' activity" (pp. 222-223).

In recent times, the definition of human capital has widened somewhat so that it is not simply knowledge or skills but also includes "competencies", "attributes", and "attitudes" such as "reliability, honesty, self-reliance, and individual responsibility" (Becker, 2002b, p. 6). Education remains centre stage, however, as the key actor in forming such human capital, which itself remains crucial for "economic success" (Gurría, 2007). Thus, we have increased importance on state schools developing "soft" skills in their students so that they become better shaped to be effective economic agents. The educational provision which is relevant to human capital theory, therefore, includes a very strong sense of economic training.

HUMAN CAPITAL THEORY IN EDUCATION SYSTEMS

A review of state education policy across the globe very quickly can identify the significant influence of human capital theory. While national systems will often have long-standing educational aims, enshrined in landmark legislation, more recent policy documents will evidence human capital discourse.

Within Europe, there is very clear evidence of its influence. One of the most prominent features of this is the way in which children and young people are categorised as a national "resource" within policy statements. In this way, they are equated with other resources such as oil and gas reserves, or minerals, all having in common the feature that they are potentially wealth-producing. Thus, children and their education is a form of capital reserve, capable of being further developed for future profit. Thus, for example, we read in Scottish policy documents that "our people are Scotland's greatest resource. That's why we are investing in our current and future workforce (…)" (Scottish Government, 2011). This echoes the view of the OECD and its secretary-general: "All societies must invest in their most valuable asset: their people" (Gurría, 2008). Perhaps surprisingly, Norway has also adopted this way of portraying its population, and its young people in particular: "People are society's most important resource" and one of the government's most important priorities is "to invest in education and knowledge" (Regjeringen, 2009). In Bavaria, this idea is expressed with some bluntness: "the raw material of a child's mind is the most valuable natural resource that we possess" (Bayerische Staatsregierung, 2009).

More commonly, children and young people are represented as natural resources which require further investment for their profit-making potential to be fully realised. This is more akin to portraying the child as raw material which requires a manufacturing process, as it were, to become fully valuable. This sort of discourse is evident across the European sphere. In England, for example, and particularly during the early days of New Labour, this sort of approach was explicitly promoted: "We are talking about investing in human capital in the age of knowledge" (DfEE, 1997, p. 3). In Ireland, following the economic problems of 2008, the perceived need to develop young people for future national dividends is manifest: "If Ireland is to achieve its ambitions for recovery and development within an innovation-driven economy, it is essential to create and enhance human capital by expanding participation in higher education" (DES, 2011a, p. 10). The EU as a whole endorses such a view

too, nudging member states towards "(…) increasing investment in human capital through better education and skills" (Commission of the European Communities, 2008, p. 2). In Slovakia, one of the EU's more recent arrivals, a similar view is expressed: "Slovakia's capability of effectively utilising and fostering its human potential is a precondition for its economic and social, as well as moral and cultural, success (…)" (Slovak Government, 2010). Norway, too, looks to generate future profit from its young: "enhanced human capital and skills (…) have direct economic effects" (Regjeringen, 2009). In Germany, the Federal Government talks "of the special importance of developing human resources" in relation to economic growth (Federal Ministry of Education and Research, 2009). This view was perhaps most succinctly and starkly expressed by Tony Blair in an early New Labour education document: "education is the best economic policy we have" (DfEE, 1998, p. 1). Similarly, Irish policy discourse is rooted in the same conception: "higher education is central to future economic development in Ireland" (DES, 2011b, p. 3).

This concept of investment is also positioned within the perceived context of an international competitive market. Many national policies see investment in human capital as geared towards gaining an international advantage. EU policy, including the Lisbon Agreement of 2000, is very much about education within its policy space being aimed at the EU gaining a competitive advantage in terms of its main target rivals in the Asian and North American trading blocs. In Austria, this view is strongly projected: "in all of our countries we are developing towards knowledge-based societies. Consequently, investing in human and social capital becomes crucial for the competitiveness of our economies; for all educational systems this poses a major challenge" (Schmied, 2010). Federal policy in Germany links education and economic competition very closely in its vision. The place of learning is clearly positioned also: "the competition for future opportunities for Germany has essentially become an international competition for the quality of education systems" (Federal Ministry of Education and Research, 2009).

Even within the reputedly less hard-nosed Nordic zone, this idea of competition is endorsed. In Finland, for example, we read: "Education is a key factor for competitiveness" (Opetusministeriö, 2009) and "the goal for the government is to make Finland the most competent country in the world (…) a primary aim for the government is to enhance the competitiveness of Finnish knowledge and competence" (Ministry of Education and Culture, 2012, p. 7). In Denmark, this international market is similarly embraced: "The aim is to

create a world-class education system and have everyone participate in lifelong learning. It shall help develop Denmark as a leading knowledge society in a globalised world" (Undervisnings Ministeriet, 2007). In Sweden, recent educational change is defended as increasing competitive prospects: Regeringskansliet (2011, p. 3), for example, argues that "The foundation of the Swedish reform programme has been that education enhances Sweden's competitiveness and improves individuals' skills and opportunities in life".

New Labour in England had long promoted a similar view: "To compete in the global economy (…) we will have to unlock the potential of every young person" (DfEE, 1997, p. 3) and that the overall aim had to be "to outsmart other countries in the development of the nation's human resources" (Brown, 2001, p. 9). In Northern Ireland, the major school improvement document argues for the country to compete more strongly internationally in terms of education and its outcomes: "(…) we should be benchmarking ourselves rather more ambitiously and in an international context. It is after all from across the globe that our young people will have to face challenges and compete in tomorrow's economy" (DENI, 2009, p. 8). Wales, too, sees education and its economic relationship in terms of an international market: "We are taking forward a far-sighted, ambitious agenda for education and lifelong learning. We want to rival the best in the world" (DELLS, 2008). Ireland also sees itself in similar terms: "there is a pressing need to adapt and reform the structures and improve the performance of the education system to meet current social and economic needs and to rank with the best performing education systems" (DES, 2011a, p. 8). The Slovak government takes a slightly different line, seeing the competition operating at an individual rather than state level: "The main criterion the Government will follow when changing the compulsory curriculum is the development of an active citizen capable of succeeding in an international labour market (…)" (Slovak Government, 2010).

Overall, therefore, three discrete but interconnected aspects of human capital theory influence can be identified in current education policy discourse. The first is the tendency to objectify children and young people as resources; the second is to see education as an investment aimed at harnessing these resources for greater future profitability; the third is to see these resources as engaged in a global struggle for economic "success", whether at an individual level or a national level.

PROBLEMATISING EDUCATION AS INVESTMENT

It is important to recognise the significance of construing education as an investment, and especially so when viewed within a context of social and environmental sustainability, not solely economic sustainability. There are numerous implications of such a perspective, some of which have so seeped into normal discourse that they no longer are subject to much public questioning and debate. Nevertheless, it can be argued that this discursive shaping of education is antithetical to the values of sustainability and perpetuates the notions of exploitation and exhaustive profitability which are so problematic in this field.

Seen as an investment, state education provides future dividends in terms of the economic activity, labour power, of the individual. Neoliberal discourse encourages the individual to maximise these returns by becoming an entrepreneurial self, an agile body who seeks out opportunities for financial returns on this educational investment (Gillies, 2011b). The broader aims of schooling are not weighed in such balances, except insofar as they can be of economic benefit. For example, issues of citizenship and socialization are not considered as centrally concerned with how humans interact and live, but immiserated, as merely providing stable, economic conditions favourable to economic activity, and growth: "(…) relationships and shared values in societies can be seen as a form of capital that make it easier for people to work together and achieve economic success" (Keeley, 2007, p. 11).

Similarly, issues around social, gender, and racial disadvantage are not considered in terms of equity, humanity, and social justice but rather in terms of economic wastefulness. If the poor, if women, if particular ethnic groups, perform less well educationally than other social groups, in human capital theory this is economic waste rather than an issue of inequality. Were these groups to achieve at the level of societal norms, then the argument is that they would be more economically productive and so reap better financial rewards at the individual and the state levels. In many ways, it is this reductive view of the human and of education which is at the root of the distaste with which many view human capital theory, a situation acknowledged by Schultz himself, who accepts that some may find it "offensive" to consider humans as mere "capital goods" (1961, p. 2). He recognises that the theory's formulation also may be considered "repugnant" by others because of the way it sees education in such narrow economic terms, and so he argues that his

economistic view should "in no way detract from, or disparage, the cultural contributions of education" (1960, p. 572). Becker also acknowledges that theory's failure to include the broader aims of education in its analysis could be viewed as "unfeeling and extremely narrow" (1993, p. 392).

The emphasis on the economic, the view of education as a calculated investment, does have further implications. If this type of cost analysis is applied uniformly across the population, then there are some potentially disturbing implications. It is not clear, for example, how human capital theory can adequately account for special education, the education of children with disabilities, nor indeed for state education within weak economies. In the case of children with special needs, the concept of investment as a suitable model seems singularly inappropriate. Using a simplistic investment-return mechanism as a means of adjudging the "value" of education is clearly ineligible unless one wishes to return to some of the worst times in recent world history. For the severely disabled, for those with significant cognitive impairment, the costs of education are unlikely ever to be recuperated in simple economic terms. Many children with disabilities, with chronic health issues, will be unable to be economically active in the ways one might assume of an average worker. In most instances, special education will be more expensive, more of an "investment" therefore. A theory which looks to account for education on the basis of future financial returns seems egregiously ill-fitted to deal with this aspect of the field. There are alternatives, and much more humane ways, of conceptualising and justifying the financing of special education. In any event, human capital theory, in democratic terms, cannot be presented as the grand, total theory it purports to be. Democratic values sit uneasily with an outlook which perceives humans as entries in a budget system, as numerical data in a simple profit-loss account.

In addition, the way in which human capital theory presents a linear connection between standards in state education and economic growth and status is not borne out by empirical evidence. Without the supportive context of a "successful" economy, it is dubious that high levels of educational achievement are significant economic factors (Blaug, 1987; Pissarides, 2000). An advanced education system rooted within a weak economy is more likely to generate emigration than local economic growth. In that sense, investment in the national state system could be seen, in human capital terms, to be wasted and one response would be to reduce levels of state education, or to channel it towards areas, or children, most likely to offer profits at a national level. An exam-

ple of the mismatch between educational attainment and economic context currently would be Poland which performs highly on PISA ratings but which remains a weak economy such that large numbers of the educated and qualified young emigrate for employment. A similar situation is emerging in Spain and Greece, where the effects of recent financial crises are also having effects on out-migration levels. Even in economies with less striking difficulties, "the underemployment of highly schooled people has been recognized as a social problem" (Livingstone, 1997, p. 9) rather than such a cohort being seen as an agent for growth. The empirical evidence would suggest that having a highly educated population without a complementary advanced economy renders the equations of human capital theory contestable, at least. Indeed, recent experience in China shows that even in a strong, rapidly-expanding economy, if that is driven by low-wage manufacturing jobs for the export market, graduate *underemployment* becomes a major issue: there are insufficient jobs at a white collar level to match a (over) qualified population (Chen, 2014; Huang, 2013).

Another aspect of human capital theory as currently practised in many countries, at least at the tertiary sector, is to focus educational spending on "excellence". Here there is less controversy about issues of equity and rights, and so many national systems explicitly target investment in those areas most likely to generate financial reward. The onerous and varicose Research Excellence Framework in the UK, for example, serves both as a means of accountability but also as a mechanism by means of which government can identify those institutions deemed to be worthy of further investment. The higher education sector has increasingly been seen as aligned to economic and business policy much more sharply than that of the earlier stages of education. Its status as post-compulsory, as not founded on principles of universal provision, allows for it to become much more closely aligned with a human capital outlook.

SUSTAINABILITY AND THE HUMAN CAPITAL MODEL

It could be viewed as symptomatic of the problematic position of human capital theory that its consideration of the issue of sustainability tends to be restricted to two very nuanced, and typically economistic, understandings of the concept. The first of these is the term "sustainable competitive advantage" which is concerned with managing an organization for continued market success; the second use is in relation to what is known as "sustainable human

resource management" (Osranek & Zink, 2014), which is largely concerned with the development of staff and the renewal of staff over time, again to ensure continued corporate market success.

The more common ecological understanding of sustainability is much less evident in human capital literature. As this paper has suggested, the reasons for this are closely linked to the conceptual orientation of the theory and its concern with maximising returns from resources rather than any sense of nurturing and protecting them. Human reproduction has not been a concern for some generations now and, indeed, where it is, it is often rather more in relation to overpopulation, for example in China, than about its scarcity. Thus, human population as a raw resource is not much of a concern, in human capital theory terms, except in terms of its quality. Human capital theory has not had any problem, thus, with its supply of natural resources: people. Therefore, the theory in its manifestation within educational discourse continues to be about the maximum development of such resources, exploiting them to their fullest degree. This becomes a powerful imperative when allied with crisis narratives about underachievement and the differential attainment of minority and disadvantaged groups. The failure to develop people into productive, high-yield citizens — culpable economic waste in human capital theory terms —, becomes fused with the discourse of equality and social justice to present a significant political challenge.

As can be seen, human capital theory is conceptually somewhat distant from, if not wholly misaligned with, ecological discourse. The argument of this paper is that its influence within education currently, allied with this misalignment, contributes to the continuation of a dominant mind-set which sees maximum exploitation of (human) resources the key priority and anything else a symptom of failure or mismanagement. While human capital theory does not advocate a rapacious approach to the planet, it is founded on the values of market return from the exploitation of resources, values which, it could be argued, have been fundamental to the ecological problems facing humanity at this time.

In keeping with the recent "capitalization" of discourse which pervades the social sphere, however, the term "natural capital" has come into common usage (Jannson, Hammer, Folke & Costanza, 1994). This covers environmental resources in relation to their economic use. Just as "human capital" can be viewed as a narrowly reductivist understanding of the person, so "natural capital" could be viewed as a similarly impoverished image of the richness of

the natural world. However, what such a concept has done is to highlight the importance of this "capital" being monitored and not simply wasted. Thus, the literature on the economics of "natural capital" points to the need for this natural capital to be protected to ensure its sustainability as an economic resource (Harte, 1995; Neumayer, 2012; Reynolds, Farley & Huber, 2010). In the same way that issues around social justice become framed in human capital theory terms as economically wasteful — as opposed to an understanding based on democratic principles or those of justice and equality — so issues around sustainability become framed as economically profligate rather than as being understood in ecological terms. The concern thus becomes not so much about protection of the environment, notions of human responsibility, and respect for our common habitat, but rather about how failure to manage natural resources strategically will decrease future opportunities for profit and reward. In natural capital terms, therefore, sustainability comes to be important because future profitability depends on natural resources continuing to provide economic potential. In an odd way, therefore, at least some of the concerns of sustainability converge with those of market capitalism, albeit from very different starting-points. It may be that some progress around ecological welfare can be secured through this odd coupling of instrumental capitalist and intrinsic environmentalist concerns. This, however, will only apply to certain aspects of the environment and not to others where the profit motive has little purchase and so this form of "weak sustainability" (Daly & Cobb, 1989) would mean that nothing would stand between those "uneconomic" parts of the natural world and oblivion.

SUSTAINABILITY AND MODERNITY

The term "sustainability" is now commonly used in all sectors of society and as such, the term does encompass many forms, including human, social, and economic sustainability, each of which is rooted in a notion of "preservation" and, in its stronger form, also justice (Baumgärtner & Quaas, 2010). In recent times, however, the whole issue has been problematized by those who see a manifest paradox in that the modelling for future sustainability is based on the same scientific paradigm which many argue is the source of the very problems of sustainability which humanity now faces (Benessia et al., 2012). Such critics argue that the predictive and controlling mode of thinking which typifies

techno-science is implicated in the problems we must tackle and cannot be relied upon as the solution. Modernity's dedication to science and rationality is seen as part of the problem and a move to a more open, plural approach is championed instead: "dynamic cross-systemic explanations are sought where static and reductionist models once prevailed" (Gallopín, Funtowicz, O'Connor & Ravetz, 2001, p. 219), a move from narrow, analytical approaches to broader, inclusive, integrative streams, from the coldly cognitive to a more holistic, human model (Viches & Gil-Pérez, 2013). This literature presents a fundamental challenge, therefore, both to the promise of modernity but also to the "weak" sustainability agenda. This counter to modernity also challenges the way in which the education system is currently configured and the whole manner in which the young are acculturated, certainly in the developed world. This alternative framework looks more at integrating the world of modernity with indigenous, traditional, and natural epistemologies and at uniting the rational with the relational, emotional, and ethical (Colucci-Gray & Camino, 2011). The argument is that the complexity of the human predicament requires this multi-faceted re-thinking rather that the simple, linear rationality which has brought us to this crisis. Allied to this, therefore, would be the view that human capital theory, with its calculations of investment and return, of profit and maximisation, is also compromised by being rooted in this modernist mind-set of infinite progress and technological advancement. The whole issue of sustainability is similarly compromised, therefore, if what it means is the attempt to preserve and maintain rather than to change and re-think.

ALTERNATIVE EDUCATIONAL MODELS

If the human capital theory approach renders education principally as a means to extract future economic benefit, then it seems clear that this narrowed focus misses much of what has traditionally been valued in education. An alternative outlook can be seen both in relation to the aims of education and to the "subject" of education. However, if the challenge to modernity from the "strong" sustainability discourse sketched in the previous section is also considered, then an even more fundamental reform of schooling seems necessary, one which would reshape learning, curriculum, assessment, and organisation. This is not the focus of this paper but is a matter which will require considerable creative thought.

The aims of education have often been presented as encompassing three main purposes: personal fulfilment; social aims or cultural transmission; and vocational aims through preparation for employment. Biesta (2008) presents these as the differing imperatives of subjectification, socialisation, and qualification. Different cultures at different times have placed the emphasis differently but these strands can be evidenced throughout the history of state education. The first is concerned with the development of the individual in the fullest sense; the second with the development of citizens and social harmony (dating back to Plato); the third with the development of the individual in relation to future employment. Rather than seeing these as discrete and separate, however, it may be more profitable to view these strands as necessarily interlinked in that personal fulfilment involves notions of friendship and community as well as engagement in meaningful employment. In other words, part of what is involved in human flourishing — eudaimonia in Aristotelian terms — is both fruitful personal relations and stimulating work. Even such free thinkers as A.S. Neill, who had little sympathy with much of what state education implies, saw happiness as involving meaningful work (1960). The difference, however, is that in human capital theory these purposes are rendered secondary to the prime necessity of generating economic returns. For human capital theory, notions of happiness or fulfilment, if recognised at all, would only be understood in terms of their capacity to increase economic productivity. The Nobel prize winner, James Buchanan (2007) of the same Chicago School as Schultz and Becker, for example, refused to recognise the concept of "public service", "public good", or altruism, seeing everything instead as rooted in self-service. Such thinkers, with their narrow conception of the individual as a profit-seeking strategist, would not give much credence whatever to notions of happiness or fulfilment which went beyond mere quantitative calculation.

An alternative model to the human capital theory approach would involve a return to, and stronger emphasis on, social and moral educational purposes. Instead of prioritising the creation of enterprising economic agents, and the risks that this poses to the sustainability imperative, state education would have a stronger sense of social responsibility and global citizenship, and an eye on a more abundant life than that of mere economic growth. It should be stressed that most national education systems already have such purposes set in legislation (Gillies, 2014) and they can be seen in the United Nations Convention on the Rights of the Child, Article 29 of which sets out shared aims for the development of the child, part of which includes the development

of "respect for the natural environment" (UN, 1989). Indeed, this notion of "development" is one which can be seen to be more in keeping with a sustainability perspective than notions of "exploitation" and maximising returns which underlie the human capital approach. An education system which supports the development of the child to fullest potential need not entail the single-minded pursuit of profit. Ideas of development, rooted in the concept of nurture and notions of natural growth, would seem to present much more promising ways of framing education than the investment-and-return model proposed by human capital theory.

A second opportunity to reframe education is in relation to the "subject" of education. Modern educational discourse, influenced by human capital theory and neoliberalism more generally, is focused on the individual. The subject of education, therefore, is a single human. This narrowing, as this paper has argued, contributes towards the development of a discourse which removes society, community, and the social from its worldview. The prime focus on the individual and her or his economic agency serves to minimise notions of social responsibility, ecological concern, and shared accountability. Human capital theory, allied with neoliberalism's elevation of the individual and its aim of removing regulations and rules which hinder that individual's freedom, is much less easily aligned with the discourse of sustainability.

An alternative view of the "subject" of education is presented by Fielding (2000a, 2000b, 2007), for example. Drawing from the philosophy of John Macmurray (1961), he argues that the "subject" of education is the "person" and not the "individual". The distinction is that the person is the human viewed as essentially socially situated whereas the individual is a theoretical abstraction, the human as a single, isolated figure — impossible to find in reality. What Fielding then offers is a notion of education as plural, rather than singular, and of the human as a social being, and so whose personal development involves plurality and living in relation. This reshaping of educational discourse prioritises issues and concerns central to humanity, but which the functionalism of human capital theory depicts as merely peripheral. It can be argued that this educational perspective which is centred on notions of plurality, human society, and so community, offers a much better basis on which education for sustainability can be founded (Slaus & Jacobs, 2011). An education system which gives primacy to personal rather than economic development, to personal relations rather than individual acquisitiveness, seems both more humanly appropriate as well as more globally sympathetic.

There are different ways of positioning state education which offer better prospects for achieving the ends of sustainability rather than the narrow discourse of human capital theory. This paper suggests that a focus on the wider aims of education beyond the economic, and a focus on the person as a social being beyond the individualistic, offer better prospects for the future of humanity and the environment. The means for achieving this already exist: they can be found in national and international legislation but it will require changed political perspectives and shifted values for these to become living reality.

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MULTIPLE VOICES TO THE DEVELOPMENT OF A CRITICAL AND RESPONSIBLE CITIZENSHIP

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ABSTRACT

This paper presents reflections on education and citizenship and the issues addressed, arising from three research projects with distinct methodologies. These projects have transversely advocated human dignity and the value of participation, interdependency, and responsibility among human beings, particularly those involved in more vulnerable situations. In the project *Cyberbullying — a diagnostic of the situation in Portugal*, the importance of understanding violence phenomena by identifying risk and protection factors has been evidenced, highlighting the relevance of an education based on co-responsibility, and an ethic of care. In the critical ethnographic project *Urban Boundaries — the dynamics of cultural encounters*, discussions evolved around communitarian education, and education was understood as a movement aggregating several dimensions of the project and including members of the local communities actively advocating their rights. In the project *Voices of youth in the development of intercultural education*, the value of children and youngsters' participation in social transformation was highlighted, streamlining initiatives with the school community through dialogic, artistic, and technologic processes that promoted the development of intercultural competences.

KEY WORDS

Participation; Responsibility; Commitment; Citizenship; Hope; Research Projects.

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Multiple Voices to the Development of a Critical and Responsible Citizenship

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INTRODUCTION

This paper tackles the relationship between education and citizenship, deriving from the contributions of three research projects that focused on the voice of youth and adults in the construction of a critical and responsible citizenship. The theoretical framework of the concepts underlining this issue will be presented along with a brief summary of the three projects, regarding their methodologies, processes, and results.

The overall goal is to question the concept of citizenship and the role of formal and non-formal education in citizenship development, while highlighting situations where this citizenship is challenged and deepened, and to emphasize the role of research and educational processes towards a new, co-responsible, participative, and emancipatory citizenship.

WHAT CITIZENSHIP IN AN INTERCONNECTED WORLD?

To be a citizen of the world is here understood as someone who has developed the sense of belonging and of responsibility towards the planet we inhabit, not as a person who has lost their roots and origins and is both indifferent

to and independent of others. These are assumptions worth addressing under a wider framework, where human societies' style of living and development must be questioned and where the future of the planet should be considered with care. Hence commitment, shared responsibility, and concerted action are key concepts (Bauman, 2007).

This means a collective and individual responsibility, together with commitment, in order to invert the predatory way we regard others, humans and non-humans, considering them as inferior and unworthy beings that exist to serve our needs and desires, and makes us all slaves of an undetermined system. This implies an

> awareness of the intimate connection (and not the contradiction!) between the autonomous citizen, morally independent and self-governing (and so often undisciplined, little temporizing and cumbersome), on the one hand, and a political community in its own right, capable of self-reflection and to correct itself, by the other. The two terms can only appear together, and each one without the other is unthinkable (Unofficial translation — Bauman, 2007, p. 292).

In this sense, there is also the need to raise awareness of the alienating collective process in which part of humanity dwells, eager for transient pleasure and insatiable in its escalating need for consumerism, and novelty. We live in empty air bubbles ready to burst, projecting us into the void, or worse, revealing a violent and incomprehensible reality where we are but pawns in a game with rules we neither understand nor control, a game with a life of its own and not understood by its own players.

All these may define a citizen in our society, but there is also room for resistance. A passive or active resistance, in all ways creative, in which we can place ourselves in order to find meaning in us and those around us, subverting the rules.

Reality is movement and interdependence. Hence global exists in local, and local is part of the global and is also a place where paths can be tested and reverberated into the global.

It is not an uncritical citizenship that is being addressed here, one characterised by rule abiding citizens, but a critical citizenship that problematizes our societies and discuss our assumptions and its concretizations, such as the so called universal human rights. Universality has to be addressed from dif-

ferent angles, in the face of human multiplicity, differences of culture, and polyphony of perspectives. This universality is neither abstract, nor faceless. This mean to "*affirm hybridity as the place of Universal*" (Unofficial translation — Žižek, 2006, p. 86). This is an active universality, rooted in a common matrix (Duhm, 2005) of an interconnected world (Lorimer, 2005) that may expand and transform itself, for it already holds in itself that possibility. We discuss here our power to transform old structures into new ones, moving towards new possibilities in the future without denying or eradicating our past.

For a wider perspective, we need to step out of the box. And in doing so, it seems we must listen to those who are in the boundaries of the systems, those who look around and realize that boundaries are only conceptual, and those who realize that there is a world beyond their own and who dare to explore it.

How to make a change? By acknowledging its possibility, and daring. On the one hand, acknowledging the possibility of change through analysis and through a critical reflection that deconstructs assumptions, a reflection that questions this same deconstruction, benefits from revealing contradictions, and is in constant movement and incessantly strives to move forward. On the other hand, daring through our actions, manifesting this movement within our local settings, interacting with those who are willing to dare. In this sense, also "schools must become places of production of critical knowledge and socio-political action" (Unofficial translation — McLaren, 2007, p. 280).

Is interculturality a hoax, in the sense it yields attenuating processes that delay the necessary changes towards a true justice founded in a broader social system? Or is it, instead, a deeper political movement founded in heterodoxy, flowing against the hegemony of common perspectives, the assimilationist western culture, and the neoliberal economy?

Should we assume each part of the whole, for without the parts there is no whole? The shadow, the minorities, the excluded…

Paradoxes and contradictions are assumed along with those who personify and embody them, the weaker links who may lead the system into self-doubt or destruction and may transform the system into something entirely different. It is vital to understand that we are all part of an interdependent whole, and that the welfare of some must not be the misery of many others.

Which word drives a profound change? Love, freeing us at the same time that we commit ourselves. To break the boundaries of the system, creating connections outside of it and finding new rules to a new matrix. The driving word is (re)connection.

EDUCATION AND CITIZENSHIP IN A PLURAL AND COMPLEX SOCIETY

There exists an intrinsic relationship between education and the preparation of men and women for their integration in the society in which they belong. Education is inherent to the socialization processes and formal or non-formal education has played this role throughout the history of mankind in a multitude of socio-historic contexts.

The concept of citizenship arises in the Ancient Times, associated with the allocation of rights and duties within a given community, primarily a city. However, many have failed and still fail to benefit from their rights over time, even though they were (are) part of the community. With the establishment of constitutional regimes and contemporary democracy, rights and duties were enshrined into fundamental law — the Constitution, and gained universal prominence, being applied to men and women around the world. By the turn of the 20th century, with the recognition of the nation-states, citizenship is strongly emphasized at the national scale, even though there is a trend for a universalization of rights (e.g. Universal Declaration of Human Rights; Declaration of the Rights of the Child), which are transverse to all democratic constitutions. In the last few decades, for political, social, cultural, and technological reasons, the concept of citizenship is expanding towards a globally shared citizenship, materialized in the dynamics of identification among citizens from distinct parts of the world, rooted in mobilization processes for common causes. These citizens are advocating their rights around the world and are sharing responsibilities with others and with the planet, in a global citizenship. Together with the expansion of the concept, the contents of citizenship are also under modification. The idea and practice of citizenship progressively arises in association with participation, which is not a new concept, but incorporates other modes of thinking and acting. According to Bresson (2014), the concept of participation is developed around three models: *public participation* (determined by imposed authorities and expressed, for example, in the act of voting or paying taxes); *collective participation* or *participative democracy* (where actors of the civil society are organized in associations, or other forms of organization, that work as anti-authorities to the imposed authority); and *mobilization* (where processes of shared power and authority are advocated through social movements driven by citizens — inhabitants, consumers, etc.; co-producing the projects that change their own lives).

During the twentieth century, in Western democratic countries, there is a trend for change from a passive to an active citizenship, from public to collective participation and ultimately mobilization, with the nuances that are specific to each age and each country (Bresson, 2014). Notwithstanding, it is visible in this trend an increased demobilization of the citizens from democratic countries regarding formal public participation (e.g., higher abstention rates in European countries), which is frequently not "compensated" by a dynamic and collective or mobilizing participation that focuses on strengthening the voice of the excluded minority.

Economic globalisation processes manifest the successive loss of rights by the citizens in general (increasing unemployment, loss of workers' rights, dismantlement of the social state, concentration of poverty and exclusion at the periphery of major cities, the large number of abandoned and lonely people [completely devoid of a voice to defend their rights], and of citizens considered useless to the production system and excluded from the labour market, etc.). In the face of these changes and convulsions, when referring to education for (and in) citizenship, we must question the society in which we are committed to educate citizens, and the citizenship we intend to promote in these (and future) societies. To think and to investigate about the relationship between education and citizenship implies questioning the means and the ends, in the sense of clarifying which kind of citizenship is intended and which kind of society we want to construct.

The modern democratic ideal is founded, as defined by Habermas (1999), in a "common political culture". In other words, a shared culture independent of its social, cultural or religious status, where a set of fundamental rights are associated with ensuring dignity for all human beings. As such, citizenship education is aimed at all and each of us. It is aimed at those who, in their differences, are building themselves towards a common goal and a fairer and more solidarity-oriented society.

Contemporary societies are increasingly plural and more complex. They are culturally and ethnically plural (feeding off the integration of citizens coming from a variety of places), but also sociologically plural. This reality challenges education in the promotion of an integrative and intercultural citizenship, which requests the pedagogy of alterity. A pedagogy rooted in the recognition of the other, in his integrity (including culture) and in an ethical position of care, particularly towards those in more vulnerable situations. The pedagogy of alterity refers to the acknowledgement and empowerment

of people rather than cultures. The intercultural perspective facilitates the analysis of cultural diversity by focusing on variations rather than on differences, on interactions rather than on conflicts, on processes rather than on conditions, and on cultural traits rather than on structures. It is inserted in a logic of complexity. Between cultural relativism and assimilationism, intercultural education reaffirms the right to be different and openness to the universal (Abdallah-Pretceille, 2005).

In the field of ethics in education, there exists nowadays a trend moving from rational ethics supported in the concept of justice to a relational ethics supported in the concept of responsibility[1], which underlines the relational and social role of education (Estrela, 2010).

Care is not only a life exercise; it is also a political and ethical responsibility. Care is an essential and inherent condition of human development; it therefore incorporates the educational process. As such, care should be present throughout the life of the individual, providing conditions of emancipation and protection, of socialization, and of autonomy. Care refers not only to self-care, but to care for other citizens, humanity, and nature (Boff, 1999). Both the family and school (the latter, in its multiple faces, from curricular schools to relational, social, and organizational schools) can provide life experiences in which children and youngsters can feel cared for and learn to care for, truly learning to live with themselves, with other human beings, and with nature, reflecting what Charney (1993) defines as *ethical literacy*.

In terms of ends, education for citizenship should be oriented to the development of conscientious, critical, and caring citizens. But, how to achieve this?

Education for democratic participation in society arises with the Progressive Education movement and especially with the work of the pragmatic philosopher John Dewey, who addresses experience as a key concept in pedagogy (Dewey, 2007). In the wake of the phenomenological approach, experience brings together action and reflection (in action and about action) in a transformative and emancipative process of human development (Fabre, 1994).

Experience is therefore a process of self-consciousness, awareness of others, and awareness of the contexts surrounding each. In Dewey's conception,

1 According to Jonas (1990), the principle of responsibility is the structural axis of contemporary ethics (the ethics of the technologic civilization), and it is framed by concerns with the future, where global humanity becomes a reference. To the author, this implies a non-reciprocity, as it relies mainly in the assurance of contributing to the future of Earth and humanity ("I owe it all to men of the future, without expecting anything in return", p. 30).

the idea and practice of a project (which should follow the canons of scientific method) are pivotal in the developmental process of democratic communities. Other authors have conceived development models based on the concept of communities of practice and education for reasoning, which closely relates to Dewey's perspective. For example, the work of Mathew Lipman values the power of argument, questioning, and reflection on children and youngsters, through educational process based on philosophical research (Lipman, 2001). Also Morin (2002a), in his work entitled *Seven Complex Lessons in Education for the Future*, proposes a "principle of rational uncertainty" as educational guidance to the promotion of a critical and argumentative rationality. These are educational models primarily designed for educating for reasoning, where interaction with the other and with the social reality is emphasized.

Closely related to this experientialist perspective, Paulo Freire (1980) introduces the concept of *conscientization*, adding political and ethical commitment (namely to the marginalized, the discriminated, and the excluded) to the scientific rigor proposed by Dewey. The concept of *conscientization* demands criticality, perceived as a critical and epistemological curiosity that surmounts the natural and naïve curiosity of human beings. In his own words, "one of the essential tasks of progressive educational praxis is the promotion of a critical curiosity, unsatisfied, restless" (Freire, 1997, p. 36). Founded in these dimensions of a conscientizing (and therefore emancipatory) education, Freire conceptualizes two other demanding factors, presented in two educational principles: the principle of hope, which the author defines as an ontological human necessity (the desire and need to exceed expectations and go further); and the principle of dialogue, which is defined as an existential human condition. Dialogue demands availability, openness, empathy, and the ability to listen, all these are indispensable to educators. In education, as in life, dialogue (as a tool in the recognition of the other) and criticality (as the ability to overcome challenges through argumentation and self-questioning) must go hand-in-hand with hope, triggering in the other a willingness to self-transcend. Criticality without hope would disappoint students and take away their will to act (Freire, 1997).

In short, citizenship education requires the establishment of educational strategies and conditions that promote reasoning and feeling, in the completeness of the human being, "getting involved in policy and emotional and corporal investment, which means 'putting practices into practice' and working in the same communities we intend to service" (Unofficial translation —

McLaren, 2007, p. 268). Citizenship education is about developing the capacity of reflection upon the self, the others, and the world, in the context of experienced education. It is about claiming a critical, ethical, and political stance in the face of reality, which requires dialogue and hope.

THE *URBAN BOUNDARIES* PROJECT: *THE DYNAMIC OF CULTURAL ENCOUNTERS IN COMMUNITARIAN EDUCATION*[2]

This Project was conceived and developed from a transdisciplinary perspective[3], based on the methodological approach of critical ethnography (Thomas, 1993)[4]. The Project envisioned the promotion of cultural encounters between the academic community and two local, marginalized and voiceless communities[5]. The goal was to respond to the needs and desires expressed by these two local communities, promoting social and cultural dynamics in which education played an aggregating role. To this end, several initiatives took place, such as the creation of a Critical Alphabetization School based on Freire (1980), the establishment of a group of *batuko*[6], the democratic establishment and support of a Neighborhood Committee, the promotion of circles of culture with youngsters (supporting them to reduce school abandonment rates and promote their reintegration in the formal school system), and the promotion of visual arts involving both children and adults (Mesquita, 2014). Critical Alphabetization initiatives supported other dimensions of the project, namely multiple Cartography, life histories, and mediation (linguistic, intercultural, and community). As described in Freire, Caetano e Mesquita (in press), these encounters, and the project itself, were rooted in three fundamental principles:

2 Project funded by FCT — Foundation for Science and Technology (PTDC/CPE-CED/119695/2010).

3 The research team included researchers and consultant from multiple fields such as Anthropology, Physics, Architecture, Education, Arts, History, and Biology.

4 Critical ethnography uses the procedures and techniques of classic ethnography, envisioning the involvement of community member in processes of intentional change, to which ethnography can add information and critic perspectives.

5 A fishing community, whose history dates back to the early twentieth century and a community in a clandestine neighborhood for which converge mostly immigrants from Cape Verde.

6 Traditional music from Santiago Island, Cape Verde, with rhythm, chants, and dances as main characterizing elements.

— All people belong to a planetary civilization and are enriched by cultural encounters (Morin, 2002b);
— Transcultural and transdisciplinary dialogue is pivotal in the recovery of the cultural dignity of people (D'Ambrósio, 1999);
— Dialogue is an existential condition of human beings (Freire, 1980).

Given these principles, the Project focused on the participation of local communities in the transformation of their social and cultural realities, in a framework of respect for and recognition of their culture. The participative processes with members of these communities reflected experiences of true internal democracy, oriented to the advocacy of community rights. As true cultural re-encounters, these processes have strengthened the bonds between different groups and the sense of community[7] (Caetano & Freire, 2014; Freire & Caetano, 2014; Mesquita, 2014).

The learning process in itself is an experience of identity (re)building. Observation data[8] shows that critical alphabetization played an important role in the construction of self-esteem and social image, in which the individual identity grows strong and confident to circulate/participate in wider and more culturally dominant scenarios. It is also a road to consciousness of social injustices and, consequently, to vindication of professional and social rights. In *terms of relations*, the observed dynamics have contributed to the transformation of relationships and to overcoming internal and neighbouring conflicts among the group. In terms of collectiveness, the created dynamics of participation targeted pacification and the establishment, and reinforcement, of safety and trust feelings. In this ongoing process, approximation to the dominant culture prevailed initially but progressively gave place to the intercultural dynamics and more transcultural human relations (Caetano & Freire, 2014; Freire & Caetano, 2014). Still, there was a greater approximation between the two local communities and among them and the wider surrounding community. These processes brought visibility to the local communities,

7 The concept of community, based on the sharing of meanings, is nowadays a key concept to the comprehension and development of human societies and, therefore, it is a central concept in education. Feeling part of a community develops protection and safety feelings, which allows for awaking of the collective dimension of the human being and the restitution of a collective and individual dignity that is often lost (Caetano & Freire, 2014).

8 Collected through participant observation (field notes, informal and focus group interviews, photography, videography, and other means). See https://www.facebook.com/fronteirasurbanas and http://fronteirasurbanas.ie.ul.pt/.

particularly through participation in local forums and vindications of rights with the local authorities. Through their leaders, they have raised their voice and advocated their rights as citizens.

Here we might ask: To what extent were the dynamics experienced in these communities responsible for the increase in internal social cohesion and value-sharing observed? To what extent were these dynamics responsible for the construction of a community identity? To what extent are true communities organized and centred places, with internal cohesion, identity, and shared values, languages, and rituals?

And also: to what extent have these dynamics contributed to the construction of a wider identity, in which the members of these communities feel more integrated in Portuguese society? To what extent can members of other communities, namely the academic community, better relate to the local communities?

Such questions comprise challenges to the maintenance of this participatory and critical research line with excluded communities. A research ethically committed, with people, in scenarios of political and social exclusion.

Throughout this Project, its critical research was driven by the willingness to break down segregating boundaries that shadow the weakest and the ones deprived of their basic rights (such as access to water, as experienced in one of the communities, and the right to work as fishermen, in the other), and the right to live in peace, without violence of any sort. The Project developed itself in a rationale of comprehension based on dialogue, rooted in "the recognition of the value of the other, without denial of eventual objections" (Guillaume-Hofnung, 2013, p. 92). This is contrary to the absence of dialogue, where neither the discovery of common values nor the acceptance of differences can exist.

The critical citizenship in question refers to the youngsters, who have left school and therefore are mobilized to reinvest in their own lives for dignity and a sense of future. It is also the citizenship of children proud of their mothers for now being able to read. It is the citizenship of African women reviving their traditions through dances and chants. It is the citizenship of community leaders advocating their rights and gathering in assemblies to solve their problems. It is the citizenship of whole communities organized in committees in order to have a voice in local politics. It is the citizenship of those who learn to exist beyond the invisible boundaries and dare to enjoy other cultures in public spaces dedicated to the arts and the books. It is the

citizenship of those who gain a new consciousness and realize the importance of preserving the environment and resources as a common good.

THE PROJECT *VOICES OF YOUTH IN THE DEVELOPMENT OF INTERCULTURAL EDUCATION*

Interculturality is one of the foundational axes of the *Voices* Project, where listening to each other, assuming in actions the corporification of voice and its amplification through interaction are core assumptions. The Project aims at the development of a critical citizenship, along the lines proposed by authors like McLaren: "Any institution that deserves the title of 'school' must educate students to become critical agents in social transformation and for critical citizenship" (Unofficial translation — McLaren, 2007, p. 280).

Field researchers in this Project are educators/teachers developing their own post-graduate studies in universities, as part of participant research projects that require their involvement with the learning communities as well as academia. These researchers develop educational processes with children and youngsters not only in formal educational settings but also in non-formal places in which they were active. These processes comprised dialogue, new technologies, arts, and the promotion of projects involving various actors of the educational community, both inside and outside schools.

In its first year, the Project started with 4 subprojects, collectively designed by researchers and applied by educators/teachers in the field. Meanwhile, common research tools were being developed. In the second year, two new subprojects have started, successfully adapted by benefiting from the experience of the previous ones (in terms of research and intervention) and from the research tools meanwhile constructed and tested (as was the case of the focus group interview's script, the field journals, and the data analysis process). So far, four Master of Science dissertations have been completed and defended in the context of these subprojects (Accioly, 2012; Bicho, 2012; Machado, 2012; Vassalo, 2012).

The knowledge being built is rooted in action and follows interaction among various subjects, who are also involved in the process of observing the impact of these learning experiences. From the analysis of the four already concluded studies, the diversity of practices and dynamics are evidenced, as expected due to the interactive and participatory nature of the processes

(following collective decision-making), and of the contexts, problems, values, and interests addressed in each subproject. Despite the differences, the subprojects shared foundations such as intense internal dialogue about alterity and personal, social, and family identity, which preceded decision-making and the development of activities; the interdisciplinary involvement of teachers and technicians; or the promotion of activities by children and youngsters, together with other actors of the educational community. The confluence of artistic practices in all subprojects is also worth mentioning, as was the case with the filming of a documentary about the lives of the students involved; the promotion of a poetry/drawing workshop; the organization of a fashion show with clothes made from recycled material; and the intergenerational exchange between children and elders, sharing life histories and affection through dancing, singing, eating, and creating origami and other craftworks. Technologies were a very useful resource in the organization of information and products and for the communication of the subprojects. On *Facebook*, a community has been established and was expanded, in a more intense way in two of the subprojects and between them (with the involvement of other actors of the educational community — teachers, parents, and friends).

Enriching and significant experiences have thus been developed. Children and youngsters engaged in intercultural learning, strengthening their individual and collective identity, recognizing the other and their surrounding diversity, and building up their capacity to interact attentively and responsibly in the face of the needs of others and their own.

Group projects develop internal cohesion and create dynamics of acknowledgement in the educational community and appreciation by others (teachers, schoolmates, school board, and families), that are transformative in the sense of consciousness and reduction of cultural stereotypes and preconceptions, towards the development of a participant and interdisciplinary culture. Such impacts have been reported in the dissertations mentioned, in *in press* publications (Vassalo & Caetano, in press). These findings are in accordance with other authors, such as Bauman (2007) who defend the need of a consciousness of the connection between autonomous citizens and fully-fledged political communities.

Interculturality is about not neglecting what has been considered private, not removing from our eyes and actions those non-assumed postures that are nonetheless present and that dramatically condition the public domain. Transforming through interculturality means increasing awareness of what is at

the basis of our identity and uniqueness, while drawing strength from what is at the basis of our shared existence and commons. Interculturality is to be assumed as a profound social posture rooted in critical perspective and actions committed to social, political, cultural, and educational transformation.

THE *CYBERBULLYING* PROJECT — *PREVENTION OF VIOLENCE AND THE ETHICS OF CARE*

New technologies are like permeable channels that trespass walls of schools and, through which violence may also circulate. Violence exists in the planet, the human city, the educational spaces, and the people that inhabit it. And through these technologies, there remains a violence that is spaceless and timeless, slowly affecting the existence of those who fail to defend themselves from it. Violence also affects the lives of those who are building their identities from experiencing oppression against others, persuaded of the legitimacy of this type of discretionary power.

In a global word where communication can be instantaneous and can connect distant parts of the planet, violence becomes spaceless and timeless. In this sense, cyberbullying challenges education. It is important to understand it, perceive its outlines, the way (and places) it is experienced, and how it can be overcome. We must understand in order to act upon it, and to comprehend the impacts of our actions. In the Project "*Cyberbullying — a diagnostic of the situation in Portugal*", we have emphasized the comprehension of this phenomenon that, by itself, is a window to comprehend the phenomenon of violence.

In this extensive study, a diagnostic questionnaire on cyberbullying was administered to 3525 adolescents attending the 6th, 8th, and 11th grades at 23 schools and schools clusters belonging to 18 different districts in Portugal. Results allowed for a characterization of the prevalence of cyberbullying, its associated behaviours, emotions, and motives, as well as risk and protection factors associated with the family and the school. 7.6% of the interviewed students reported being cybervictims, whereas 3.9% reported being cyber aggressors (Matos, Vieira, Amado, Pessoa & Martins, in press). Many Portuguese teenagers and youngsters are daily affected by cyberbullying situations, as is the case in many other parts of the world. Most often, victims and aggressors are vulnerable people facing great suffering, which is reflected in their responses when questioned about their emotions regarding cyberbullying:

Data shows that sadness, revenge, and fear are the most frequently reported emotions by victims, whereas satisfaction, indifference, and relief are most often experienced by aggressors. These results denote the reversibility of roles within this phenomenon, as seen in literature (e.g., Cassidy, Faucher & Jackson, 2013). In other words, there exists a vicious circle of suffering that involves both victims and aggressors, and which results in victims becoming potential aggressors and vice-versa. While investigating the motives associated with cyberaggression, lack of empathy and inability to express affection were evident in aggressors, together with asymmetric patterns of authority and power among those involved in cyberbullying, which has been reported in other acts of violence, such as traditional bullying.

Similarly to what has been concluded in studies regarding other acts of violence, this research has underlined the importance of school and family environment in the prevention of cyberbullying. In terms of school environment, we emphasize school ethos, reflected in an adequate supervision and clearly-defined rules (namely regarding the use of technologies in school), together with emotional support. In terms of family environment, results suggest that "lack of family support appears to be more predictive of cybervictimization and lack of family rules is more predictive of cyberaggression" (Martins, Veiga Simão, Freire, Caetano & Matos, in press).

These results underline the importance of preventive educational processes, through which the educational communities come together in coordinated and ethically committed initiatives; where families, schools, and schoolmates can undertake a responsible surveillance, and where students develop social and emotional competences that make them resilient, sensitive to others, and capable of dealing with situations in a peaceful, creative, and compassionate way. This is about creating assumed relations of interdependency and reciprocity in schools and families, inserting them in the ethic of care towards each other (Brugère, 2014. An ethic founded in the concept of justice (underlying rules that control human relationships in a given social context), but going beyond justice. This is an ethics that combines a concern for the other with the willingness and the action of care, and in which the dignity of each and every one is respected. An ethic that is based on the principle of responsibility, one that is increasingly necessary and emergent in current societies due to the growing vulnerabilities humans are faced with, particularly children and youngsters. From the principle of responsibility comes the principle of "precaution" (Russ & Leguil, 2012, p. 118), or prevention,

which refers to risk forecasting and anticipating, accounting for the risks, the protection factors, and the consequences for human dignity.

FINAL CONSIDERATIONS

In summary, we have assumed in this paper a critical perspective — socially, educationally, and economically speaking — in which we assert that our daily actions may shape alternatives and develop individual autonomy and the sense of collective responsibility. In this transformative movement, we are clearing roads together with those along the way, getting involved, taking part, and assuming unconditional responsibilities towards the other that is different from them, as "recovering the citizens' voice that has been lost or is no longer audible" (Unofficial translation — Bauman, 2007, p. 288).

We live in a globalized world, dominated by the neoliberal fatalism of the end of utopia, by the lack of problematization of the future, and by the conviction that everything is natural (like unemployment and poverty) and everything depends on the individual. In the words of Paulo Freire, over seventeen years ago but still very relevant to educators nowadays:

> Unquestioning the future through a mechanistic comprehension of our past History (either from a left- or right-wing perspective), necessarily leads to the destruction or authoritarian denial of our dreams, hope, and utopia. The future is already known to the mechanistic and therefore deterministic intelligence of History. No hope is required in the fight for the *a priori* known future (Unofficial translation — 1997, p. 82).

We need to question our relations of independency (autonomy) and interdependency. We need to reconnect the ethic of justice, which has been dominating both education and research on education, to a relational ethics, the ethic of care and protection, one that contributes to the education of self-respecting citizens capable of respecting others and the environment. So that hope may be reinvented.

We need to achieve all this together with the youngsters and adults in our communities, in educational scenarios that bring together critical action and reflection. To a certain extent, this is stated in the work of Sousa Santos:

> Global cognitive justice refers to a new relationship capable of creating a bottom-up vernacular cosmopolitanism. In other words, a new relationship among races, genders, and modes of knowledge and existence. The frailty of human rights, in the domain of global cognitive injustice, pertains to the fact that its conceptions and dominant practices are, by itself, promoters of cognitive injustice — not because of its occidental assumptions, but in its unilateral way of building on assumptions to create abstract universal pretensions. Here, the solution is once again not the relativism but a new relationalism (Unofficial translation — Santos, 2013, p. 97).

Education and research may invaluably contribute to the fight against fatalisms that destroy the hope of men and women, destroy the hope of generations one after the other (particularly younger ones), and destroy the hope of mankind. The definition of ideal citizenship and societies for tomorrow is pivotal to the sustainability of policies and educational practices that may change the *status-quo*. Research has a relevant role to play in the construction of such policies and practices to which educators, learners, and researchers may contribute through a dialogical process where theorization is in close connection to practice.

What is here in question is not a vague idea of hope, or a totalitarian utopia where everything is predefined. It is about clearing a road mile after mile with all those involved at a local scale. It is not about recognizing only the value of intellectuals, scientists, thinkers, economists, and politicians that reflect and act on global problems at a global scale, but the value of all of us, thinking and acting on concrete problems at a local scale, embodying broader problems and solutions. In other words, for an active citizenship it is necessary to assume a re-politicization that places certain fundamental decisions in the hand of the individuals and groups involved (Žižek, 2006). This is a vision of "the 'we-power' citizen of an interconnected world" (Titus, 2005, p. 31).

In this sense there is a need to understand the relational and embodied nature of humans (Bishop, 2005). In a society of knowledge and communication, ideas circulate increasingly faster and easier. Virtual communication, however, is not enough. We need to find spaces where we meet face to face, we feel the presence of the other, we sense their desires and anguish. We need to find ways of assuming the human existence in its multi- and inter-dimensionality, including dimensions that seem to be taboos in some intellectual contexts, such as the spiritual and emotional ones. Moreover, we need to regain the sacredness of cities, as places where organization promotes encounter.

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