CHAPTER 12

Changing Conceptions of Literacy: Pluriversal Literacies

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Abstract:

«We are being stunted by a form of critical illiteracy», state Tierney, Smith and Kan, and «our global scholarship is facing a crisis of similar proportion to that of climate change […] because we are insufficiently 'reading the world', in the Freirean sense — acting as if we can and should be monolingual in a world that is multilingual» (Tierney et al. 2021, 305). This chapter will briefly chart the history of formal literacy education and describe the scope of the field of research and practice today that encompasses both standardised models of reading and writing text as well as more expansive models of meaning making across many sign systems. We relate the current standardised and universal model of functional literacy to a colonial past whereby systems designed for the benefit of the urban global north were imposed upon other contexts to ensure their expansion of power and economic advantage. Pluriversality is a concept that emerges from a decolonial movement of thought that provides a counternarrative to contemporary Northern assumptions of the universal and, in Escobar's words, to «the hegemony of modernity's one-world ontology» (2018, 4). This chapter provides a conceptual framework of pluriversal literacies in education inclusive of, but exceeding, the literacy of print. To illustrate the opportunities of a pluriversal literacies model in education, we provide a case study of land literacy practices in agricultural education in Patía, Colombia.

Keywords: Equity; Land; Literacies; Pluriversal; Sustainability

Introduction

Through our senses we encounter the world around us – with our sight, hearing, smell, touch, and taste. We encounter the sign-systems of the world – the sights, the sounds, the smells, the textures, the tastes. The world is made up of these sign-systems that constitute texts, materials, behaviours, environments, indeed, all animate and inanimate life.

Literacies describe the ways we decode and make meaning from these sign-systems (Perry 2023). Our literacies determine and delimit our capacities to

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consciously engage. This process of encountering sign-systems and responding to them is also known as the process of semiosis. Semiosis is recognised as the fundamental interaction of signs; what they signify; and the person or thing that interprets them. And it is happening all the time. Everything in the world is communicative; all things draw upon semiosis. From gestures to root patterns, from senses to temperatures, from sound to pattern formations, people and our ecosystems function amongst many complex sign systems or iconic and indexical referencing.

Text is a very specific sign system, among many others. And rather than the linguistic notion of semiotics, which is largely due to the propositions of Ferdinand de Saussure (1959), a more accurate and useful – not to mention ethical and sustainable – understanding of semiotics is a simple triad of semiosis offered by Charles Sanders Peirce (1991). This triad consists of the sign (or the representamen), the sense made of it (the interpretant), and what is signified (the object). The interactions of this triad can be applied to all life, from molecular transactions to digital interactions, from human connections to societal movements. In locating literacy practice at the fundamental human engagement and interpretive level, a radically different pathway of possibility for a literacies education is revealed. It enables learners to engage, come to know, communicate, and learn in and with the world.

Peirce's proposition that the sign is «the primary or central characteristic of life, whether human or organic» (Hoffmeyer 2015, 244) is central to this argument. It has been taken up to propel many disciplines of knowledge over the past 100 years from molecular biology to anthropology. The foundational work of Peirce has been taken up again and again across disciplines and sectors; what is critical to underline here is that signs are not just language-like (Kohn 2013).

If literacies are the practices of decoding sign-systems from the world around us, it is important to question the fact that 'literacy' in the singular is most commonly synonymous with reading and writing print. In fact, in most of the world today, 'literacy' means not only reading and writing print but reading and writing print in one of three or four 'global' (or colonial) languages. In some contexts, 'literacy' is synonymous with 'English lessons', in others, adult education most commonly equates to adult print literacy learning. This generalisation of literacy equating to print does not account for the translation of the term 'literacy' into the many different spoken languages across the world, but it dominates the driving operationalisation of literacy education on a global level.

If the whole world communicates, from a cellular to a global level, to what extent is print literacy sufficient, and for whom? What does it mean to be an active and conscious and literate member of our world (Bown 1985), a world mediated by semiosis? Semiosis occurs with or without our conscious approval or control – our cells are sending and receiving, interpreting, and responding to sign systems; but so are our organs, and similarly our tastes, our decisions, our families, and communities. On a conscious level, representational processes of communication (sign systems) form the basis for all thought. But we need to be able to 'read' the sign systems, to make meaning from them in order to impact

our understanding of ourselves and our actions in the world. *How we relate to things depends on the literacies we have.*

If Peirce's work came to light today, we might now position his semiotics as post-human. But unlike literacies educators and researchers today, Peirce was not working within the contingent primacy of language-like semiotics. A hundred years ago, his work served to support the development of linguistics as much as every other field of study, from microbiology to physics and anthropology. Language was a specific and peculiar semiotic system from Peirce's perspective (1991), but it stuck. As evolutionary and geo-political factors weighed in, the linguistic semiotic triad quickly became the universal benchmark for education.

This chapter goes on to look more closely at the evolution of print, or 'schooled' literacy as we know it today. We highlight the geo-political characteristics of its position in education. Above all, we argue the epistemic injustice of this prevailing paradigm, but also the insufficiency of it for a sustainable world (Bown 1973). Beyond critique, this chapter then introduces pluriversal literacies as an alternative framework for literacies education for equitable and sustainable futures. Finally, we offer a glimpse of one of the many places where educators are taking up this broader anti-colonial and place-based approach to literacies education.

1. The Story of 'Literacy'

Academic and public interest in formal literacy education has occurred across the globe at least since the late nineteenth century (Tierney and Pearson 2021). But it was not until the aftermath of the Second World War and the beginnings of the International Development movement that literacy education, like many other organising systems, began to be considered and defined on a political and global level (Perry 2023). In 1944, 44 nations came together in Bretton Woods, New Hampshire, USA, to establish the first international development policies, driven by economic policy. The Bretton Woods Agreement set the stage for the governance of international trade agreements and prompted the establishment of the International Monetary Fund (IMF), the World Bank, and the United Nations.

The concept of the 'universal' was familiar to the European and North American powers of the time, but it took on a new relevance with the expressed global economic intentions that were tabled in the formation of the Bretton Woods Agreement. Any functional global system was going to need a minimum set of common principles to survive. So, in conjunction with the establishment of the systems of global economy, a much broader set of universalisms began to come into place. Chaired by Eleanor Roosevelt (widow of former US President Roosevelt), a committee of eight men, representing Australia, China, the UK, France, Chile, Lebanon, Canada, and the former USSR drafted the first Declaration of Universal Human Rights on behalf of all humanity. In 1948 this Declaration was approved by the General Assembly of the UN in Paris, France. This also represented the foundation of International Human Rights Law. Taken as a whole, the influential global moves led by global powers of the time, propelled a

worldview driven by the logics of global capitalism, individualism, and human exceptionalism. A worldview permeates not only policy, but also education and the day-to-day behaviours of people who adopt it (Lent 2021).

There is less war today, and there is more social and political accountability. Many people experience a greater degree of democracy, and waves of intellectual and cultural discovery. But over 100 million hectares more of tropical forest flourished in the 1940s, and trillions of tons more of Artic ice existed then. The world in the 1940s was home to 250 more spoken languages than it is today, and 70% more wildlife existed. These numbers and glimpses are highly selective, and there is no golden age to model from for the future. We describe these realities here to mark some of the tangible ways in which our world has changed, as a reminder rather than a summary. But we are in an unprecedented state of climate emergency and inextricable social inequity and fragmentation. Looking ahead even a few decades, the future of a planet hospitable to humans is in question. A future that relies on current frameworks of education, economy, and human-environment relations is impossible.

In the 1940s the coordination of policy and governance began to piece together a political infrastructure that ensured the growth of a global capitalist economy. Directly entangled with this process was the development of the global literacy movement. UNESCO – the United Nations Educational, Scientific and Cultural Organisation – was founded in 1945, and by 1965 the organisation had defined 'illiteracy' and pronounced its ambitions to combat it. The definition of illiteracy has not changed very much since then, today it is defined as the inability to read and write print text (UNESCO 2016, 29).

A common language of communication that could be abstracted from context is the only way that a global economic system could grow to function systematically in such a plural world (Abram 2017). This was tried and tested during colonial conquests, most especially European colonisation during the seventeenth and eighteenth centuries. European languages, faith systems and the education systems to teach them became important tools of colonialisation, providing the colonial powers more effective control over populations and territories. In the post-war context of the 1940s print European language, especially English (shared by the UK and the US as the primary official communication mechanism) had a second wave of influence. Not only did a global economic system need a common communication mechanism, but so did a set of universal human rights and values if they were to effectively inform law across all corners of the globe. According to the Universal Declaration of Human Rights, decreed in the English language 70 years ago, education is a universal human right. This text is only translated into fewer than 8% of the world's languages, so it is not clear what portion of humanity knows this information, and even less can we know how many peoples believes in our current print based paradigm of 'education'.

In the name of International Development, print literacy education has been at multilateral policy tables since the 1960s. UNESCO, the OECD, the World Bank, and the IMF have been at the forefront of its advocacy, but also at the mediation across the scales, contexts, and understandings of literacy worldwide.

Within leading economic powers, literacy policy agendas began to appear towards the end of the twentieth century (Davenport and Jones 2005; Windle and Batista 2019). Governments at that time began to take more of an interest and a role in a literacy education, recognising the ways in which print literacy could support their nations to benefit from an increasingly dominant global economy and its related markets and labour force. The shift from the Millenium Development Goals (MDGs) to the Sustainable Development Goals (SDGs) further expanded the focus of global attention from children's literacy education to the importance of literacy education across the lifespan. UNESCO has supported the contextualisation of the definition of literacies, supporting research and resources to enable literacy education to meet the perceived needs of individual nations (Hanemann and Robinson 2022). But international bodies have varying degrees of influence on individual national policy. As Allan Luke states clearly, «educational policies are bids to regulate and govern flows of discourse, fiscal capital, physical and human resources across the time/space boundaries of educational systems». Literacy was a central player in this system and «policies and policy makers set out to achieve estimable educational and cultural, social and economic goals and outcomes» (2018, 228).

At a governance level, outcomes need to align with national agendas and priorities, which in the modern era are always tied to some extent to the global market. Outcomes are easiest to evaluate, evidence, and use for further progress today when they can be quantified and re-presented in terms of a recognised standard. The easiest quantifiable thing in the world is money – the gold standard of quantities. Literacy outcomes are hard to quantify, and most of us in the field of literacy education will agree here. Western scientific paradigms however, and a pragmatic research industry have developed assessment methods that can be applied to quantify certain versions of some aspects of literacy, as long as the information is provided in certain forms.

In considering literacy education in relation to literacy testing, we move to the literacy classroom. What information and in what form can classroom teachers enable evaluators and researchers to quantify the levels of literacy of their learners? The information needs to be abstractable, countable, and then comparable. This in turn has implications for the sort of evaluation materials that the teacher uses for his/her learners, which means he/she needs materials that align with the curriculum used to develop that set of skills. And thus, we have an *industry* of literacy education. This is as close to the issue of testing that we will consider in this chapter. But testing is important to keep in mind. Taken together, what comes into view is a multi-national *edu-business* that is at once embedded in the global market economy, and modelled on the market of literacy testing (Ball 2012; Windle and Batista 2019).

Literacy education, be in print literacy or otherwise, sits in the midst of many interacting stakes. As a result, policy in literacies education today can be characterised by the manifestation of two trends: firstly, the dominance of English, Spanish, and Chinese languages as compulsory curriculum subjects or languages of instruction; and secondly, the prevalence of a phonics approach to print

literacy education. There are exceptions of course, but this overview conveys important policy trends.

This brief unpicking of a colonial past and neo-colonial present, reveals a global market economy and knowledge economy driven by the Global North. But underlying this, is a human exceptionalism that has disconnected us so much from the non-human world that many today go about their daily lives as if only dependent on other people and the systems we have designed.

This chapter moves on now to offer a conceptual and methodological framework for literacies and literacies education that includes both human and non-human, language and non-language-like sign systems. The proposition is a new framework for literacies education – a pluriversal framework. It contests the colonial and neo-colonial literacy practices that influence geopolitics and the knowledge economy and that have reigned for so long that most have forgotten to question them.

2. A Literacies Education for Sustainability and Equity

How we relate to other things matters; it is intrinsic to life. Donna Haraway famously bestows: «It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties. It matters what stories make worlds, what worlds make stories» (2016, 12). How we relate to things is determined by semiotic systems, or sign systems. Our literacies determine our capacity to relate, to engage, to de-code, and then make sense of signs. But, as Tierney, Smith and Kan remind us, «we are being stunted by a form of critical illiteracy». They warn that «our global scholarship is facing a crisis of similar proportion to that of climate change […] because we are insufficiently 'reading the world', in the Freirean sense – acting as if we can and should be monolingual in a world that is multilingual» (Tierney et al. 2021, 305).

Literacies are micro practices; that is, they occur on the level of the particular, of the unique encounters that make up our myriad human relationships, moment to moment. They describe our abilities to read text, but also our own body, the land we stand on, the materials that mediate our lives, the water, the sky, the faith systems that drive so many of us. Literacies are plural, because relating to different things requires different practices of meaning-making and communication. To work together on a common earth with a common purpose of sustainability requires embracing not just difference and a plurality of literacies, but also the relations between us and our literacies. Relationships begin with, are nurtured by, and are sustained through our literacies in semiotic practices. We can write, we can read, we can listen, we can sing, we can plant, we can heal, we can hug, we can coordinate and teach and learn, through literacies. So how can we re-story the relationship between literacies education across different contexts and peoples of the world? To do this work, it is necessary to reach beyond a universal model, beyond a human exceptionalism, and beyond a notion of a

«unity of science» (Wilson 1998, 5). But this is not a new challenge. There are many conceptual propositions to work from and work to learn from in other fields.

The pluriversal framework calls for *literacies* and not *literacy* education. It positions literacies as a practice of social and ecological justice and sustainable futures. Plural literacies are nurtured in responsive education systems, are interrelated through kinships across geographical and literacy boundaries, and are recognised by humans engaging all senses and reciprocity. They include literacies of land, water, matter, body, faith, along with the many other place and time specific literacy demands of our collective human-environment condition (Perry 2023).

3. Pluriversal

«Un mundo donde quepan muchos mundos», (a world in which many worlds fit) (Ziai 2018) was a powerful slogan of the Zapatista movement which originated in Mexico and came to international attention in the 1990s. Prompted in part by the force of the North American Free Trade Agreement (NAFTA) on the country, this political movement fought against the loss of land ownership and control for the Indigenous people, as external economic and commercial bodies gained increasing bargaining power over land and production.

A World That Is Home to Many Worlds (Ziai 2018) is in direct contrast to the concept of the 'universal' that has driven much of the modern world's efforts of global cohesion, cooperation, and versions of planetary peace and prosperity. Many worlds equate to many perspectives, ways of being, knowing, and relating to shared planet earth. The 'pluriverse' provides the conceptual and discursive possibility for this reality. It gives legitimacy not only to one universal, but to many universals. Aspiring to a pluriversal approach to education is not a call to eras past; it does not locate sustainable solutions in times prior to globalisation, capitalism, or the United Nations. It is a global perspective that has emerged in part because of a resurgence and reclaiming of stories that don't fit in with the global market economy, stories that are born out of other values and commitments. This movement has been strengthened further by critical developments in decolonial theory and perspectives, in relational theories, and in post-humanism. The pluriversal world is not a planet separated into parts (nations, tribes, cultures), nor is it a structure requiring new boundaries, nor an argument for cultural relativism. The world is taken up in the pluriversal framework as relational and evolving. Mignolo states that the pluriverse is «a world entangled through and by the colonial matrix of power», and that we need to think and understand «in the interstices of the entanglement, at its borders» (2018, xi). Therefore, the stories that guide us and the theoretical discourses that we use to analyse them are as important as the historical and political discourse, in understanding the merits and potentials of the pluriversal framework.

It is critical to a sustainable world to acknowledge and allow for the plurality of ways in which different humans need to relate to, and be in balance with, different parts of this interconnected world. But this evades common standards

of literacy, practice, and purpose; a pluriverse doesn't produce comparable outputs; a pluriverse doesn't hold equal value to the same gods, be they money or deities. But the pluriverse does allow for inclusion, equity, diversity, and ecological and social logics that are reciprocal and sustainable. So, in this inconvenient proposition, how can we connect with common purpose? How can we work together across geographical contexts and recognise the values of global governance structures and human rights? Wall Kimmerer states, «To be native to a place we must learn to speak its language» (2013, 48). This starting point allows for a pluriversal framework for literacies education, especially for those who consider epistemology inextricable from language.

4. A Glimpse of Pluriversal Literacies at Work in Colombia

Colombia is the fourth largest country in South America and one of the continent's most populous nations, with an estimated 50 million people. From a socio-cultural perspective, this country, a colony of Spain until 1819, has been known for its ethnic and geographic richness. Mestizo Colombians make up to 47% of the population and are considered the largest group in the country; including substantial minorities of African Ancestry (Afro-Colombians make up 23.6 % of the population), mixed European and indigenous descent. Colombia's recent history is shaped by more than 50 years of conflict between the state forces, guerrilla insurgents and paramilitary groups. The conflict resulted from social and political exclusion and unequal land distribution and has significantly shaped different aspects of Colombia's nation-state formation processes and economic development (Karl 2017).

The conflict has significantly impacted the livelihoods of peasants, indigenous populations and black communities living in rural Colombia. At the same time, climate change has transformed production boundaries in the last ten years and imposed new challenges on small-scale farming. These include changes in crop phenology (Eitzinger et al. 2018); the quality of underground water and water availability; animal and milk production; livestock diseases and biodiversity (Rojas-Downing et al. 2017); land degradation and desertification (Ramirez-Villegas et al. 2012). Recent research has explored the impacts of climate change among dairy and cattle farmers in Patía, a department located in the Pacific region of Colombia. Smallholder farmers described several impacts in their daily farming due to unexpected changes in seasonal patterns and extreme droughts that affect crops, pastures, animal health and access to water. These processes cause economic damage and production lost. But the testimonies also recall another loss, impacting not only autonomy and success in participants' day-to-day life, but also their future possibilities. Specifically, this is the loss of local knowledge and land literacies inherited and developed across generations. This literacy of the land has been critical for millennia, to inform decisions on, for instance, when to plant and what to produce, and identify potential issues affecting soil and crops. This land literacy also constitutes what it means to be a farmer in this area of Colombia.

The loss of a pluriversal land literacy has been conceptualized in research that analyses non-economic losses and damages associated with climate change (Tschakert et al. 2019; Dorkenoo et al. 2022). The loss of 'socio-cultural systems' attached to land literacy affects communities as strongly as the loss of assets or disruption in production, since they are farming practices that are part of the local culture (Chandra et al. 2017). This degradation and disappearance of a critical land literacy is also associated with a loss of freedom and autonomy, as farmers must lean on external knowledge sources and technologies to maintain local food production. Furthermore, this loss contributes to the hierarchy of knowledge systems, demoting land literacy in favour of literacy of print, and along with that the sort of information that can be contained and portrayed via print language.

However, against this familiar backdrop, our research has identified pockets of practice in Patía in which smallholders are forging new forms of land literacy by reading and making meaning of the changes that the natural world is experiencing. They are developing what we could call 'climate change land literacies'. For example, the appearance of specific new colouring in the treetops indicate drought and soil quality problems. Some smallholders have started to farm new varieties of grass, i.e., non-native species expected to be more resilient to the conditions caused by climate change. These new types of pastures are the result of new technologies, but to be adopted successfully, farmers need the ability to read and decode the new colours, textures, sizes, and patterns of the growth and care of in relation to the new variety of seeds. The interaction between animals and the new pastures are also shifting and farmers are learning to read and interpret which leaves the cattle chew and how they chew them; what the cattle discard, and which parts they like best. These relations between animals and pastures further inform smallholders' decisions and actions.

The Patía case shows that land literacy is evolving in response to climate change. In the long term, by attending to these micro practices between people, animals and their lands, we can support a contemporary curriculum of land literacy in tertiary and further education – a critical need in response to a vulnerable context. Specifically, the challenge facing agricultural and rural school programmes are twofold: on the one hand, they must ensure a complex understanding of land practices and how these can favour or inhibit life and sustainability in Indigenous, Afro-descendant, land-dependent and rural communities. On the other, they must contribute to new knowledge construction approaches that emphasise contextual and environmental literacies and knowledge transmission across generations (Gómez Espinoza and Victorino Ramírez 2008).

Revisiting educational practices built from re-examining rural contexts is possible. The literacies that are sustaining rural subsistence farmers can enable the place-based pedagogies beyond traditional school practices and scientific methods (Peña 2014). This work requires a revision of print only literacy processes in agricultural schools and rural community schools (Da Silva 2001; Palacios et al. 2023). Incorporating local land literacies into education involves new strategies that require often unexplored worldviews, ways of understanding human-nature relationships, and learning across the rural contexts (Peña 2014).

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A Colombian rural school pedagogy that values the importance of communities' literacy of the land challenges a traditional positivist paradigm in education. It calls for a pedagogical approach based on dialogue and recognition of diverse knowledge systems. It is a proposal for pluriversal literacies conceived from a liberating and emancipatory lens to challenge practices that have historically overvalued some knowledge and hidden and undervalued others (Delgado Tornés 2012; Peña 2014).

Conclusion

The Patía case study is a brief example of place-based, critical and socio-ecological literacies needed for a decolonial and sustainable future. In a different context, for example an urban centre, a nomadic community or a coastal region, the critical sustaining literacies needs would be different. A pluriversal approach to literacies education allows for this plurality of relational needs between humans and their contexts to be attended to in an inclusive pedagogical framework. A comparison with standard assumptions and evaluations of literacy quickly highlights the distance between pluriversal literacies and the print-based literacy and evaluation used to determine levels of educational attainment worldwide. The work introduced in this chapter points to the needs and pathways of possibility to once again revisit the foundations of literacies education in reflection of literacies that have before, and can once again, enable sustainable futures.

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