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Mevawalla, Z. (2013). The crucible: Adding complexity to the question of social justice in early childhood development. *Contemporary Issues in Early Childhood*, Vol. 14, No. 4, p. 290-299.

Access to the published version: <http://doi.org/10.2304/ciec.2013.14.4.290>

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The crucible: Adding complexity to the question of social justice in early childhood development

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The work contained in this paper is my original composition and contains no material that has been previously published or submitted elsewhere except where due reference is made.

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Abstract

As an ideology, the concept of social justice has long been a worthy, if slightly volatile, companion of early childhood theorists and researchers. Whilst the majority of literature has valorised social justice, discontented questions regarding ‘what’ the construct entails and ‘how’ it might be tamed to work still remain. Using complexity theory, this article problematises the amalgam of social justice by re-addressing the role of participation, inclusion and equality in early childhood systems. It is argued that social justice evolves from essentially local and relational interactions amongst a range of stakeholders. By framing early childhood interactions as those occurring within the context of relationships which are embedded within open systems (that is, systems within systems), this article discusses how interactions in early childhood involve a set of complex, yet systematic processes which can only be understood as they unfold. Contextualised against the dominant discourse of ‘normalisation’ in early childhood, this article uses aspects of complexity theory such as non-linearity, emergence and

recurrency to focus on the ways in which layers of social justice are embedded in the values and processes experienced in early childhood systems. Drawing on the philosophical roots of transformative education, it focuses particularly on the use of complexity theory to frame concepts of children's power, agency and participation. It discusses how the proactive praxis of social justice might emerge from within early childhood systems.

Introduction

Underscored by the principles of equity, human rights, participation, inclusion, democracy, power, responsibility and freedom (to name a few) – the concept of social justice is as difficult to define as it is to construct and de-construct. With such a heavy and diverse network of terms functioning under the all-encompassing amalgam of 'social justice', it is not surprising that the growing cluster of social justice education literature – has accrued in its wake an overflow of analytical writings on “abelism, adultism, ageism, anti-Semitism, classism, heterosexism, racism, sexism” and various other 'isms' (Adams, Brigham, Whitlock, & Johnson, 2009, p. 525). Early childhood development (ECD) [1], that is, the period during which a young child under eight years holistically develops – is particularly relevant to social justice, given that attitudes towards difference emerge in these early years (Connolly, 1998; Connolly, Hayden, & Levin, 2007; Dau, 2001). This relevance is further emboldened when one considers that education [2] has long been thought of as an arrow for social transformation (Dewey, 1937, 1966; Freire, 1970; Horton & Freire, 1990). ECD has received particular attention in this regard, from economic research suggesting that ECD programs can compensate for the ill-effects of poverty and cultural deprivation (Cunha & Heckman, 2006; Frost, 1968; Heckman, Moon, Pinto, Savelyev, & Yavitz, 2010), to neurological and biological studies highlighting the longevity of the early years impacts on later development (Kagitcibasi, Sunar, Bekman, Baydar, & Cemalcilar, 2009; see also *The Lancet*, volumes 369, 378). Amongst these findings (and a range of others from various disciplines), a fountain of

interest and investment has materialised. Adding social justice to this already overflowing crucible (or melting pot) of things that early childhood education ought to accomplish may seem somewhat tautological, given that research has already positioned ECD as a veritable springboard for benefitting children, families, societies, economies and polities. However, it is argued here that focussing specifically on high quality social justice education in the early years is significant for addressing the immediate and longitudinal spirits of democracy, participation, inclusion, sustainability and equity (Pelo, 2008).

The paradigm in which this ‘interest’ and ‘investment’ in ECD has been encompassed, has come with a certain form of (market-based) accountability (Moss, 2009), along with a desire for achieving pre-determined outcomes (Kamens & McNeely, 2010; Lingard, 2010). This paradigm (based on the dominant discourses surrounding education) and an alternative counterpart (based on complexity theory) are the central concerns of this article. Within this broader arrangement, Fleener’s (2008) thinking has been adapted to frame the guiding question, which asks – ‘What kind of education can capture the complexity of social justice as it unfolds, without reducing the diversity of this magnanimous concept, or over-simplifying the interconnectedness of its relationships to broader political, socio-cultural and ethical branches?’ This question subsumes two sub-questions, the first of which asks: ‘What sort of knowledge has contributed to the current understandings of social justice in the literature?’ The second asks: ‘How is this reflected in the social, political, ontological and ethical purposes and practices ascribed to ECD systems?’

Social Justice

In answering the question about the sorts of knowledge that have contributed to the current understandings of social justice in the literature, it is necessary to review the social origins of social justice. Socrates, Plato and Aristotle have been credited for conceptualising social justice as being about the public’s ‘common interests’ (Griffiths, 2003). Rawls (1971) built upon this notion through his distributive theory of

justice by focusing on the equal distribution of resources and goods throughout society. Rawls based his analysis on societal reciprocity (the social contract), and used “income and wealth to index relative social positions” (Nussbaum, 2006, p. 107). Nussbaum (2006) and Young (1990) suggest the need to move beyond Rawls’ material parameters and its Marxist foundations, arguing that injustice is more complex and influenced by the dynamic mixture of socio-economic, political, cultural and historical factors.

More recent constructions of social justice have drawn on post-enlightenment, feminist, postmodern and critical theorists (such as Hume, Nussbaum, hooks, Mouffe, Foucault, Lyotard, Derrida and Freire) to focus on how oppression and injustice are reinforced by the power cached in reason, reality, language and ideology. In applying this thinking to ECD, Dahlberg, Moss, and Pence (2007) awaken the consideration of the ‘dominant discourse’, suggesting that if:

There is no single reality, only many perspectival realities, then... Claims to represent can be understood as tools that project power by privileging one particular construction or perspective over others, and as forms of normalisation by constructing standardised categories and criteria against which people are judge (p. 25).

Foucault discusses how the dominant ideology presents itself as a ‘regime of truth’, that is universally acknowledged, and therefore unquestionable (Giroux & McClaren, 1991; MacNaughton, 2005). This, as Derrida claims, perpetuates asymmetrical power relations that privilege some whilst leading to the exclusion of those considered as ‘other’ (Eg ea-Kuehne & Biesta, 2001).

Taking these notions into account, for the context of this article – the term social justice is used to refer to the active struggle for transformation against all forms of discrimination and oppression. It is an ethical, political, cultural and ontological undertaking. This does not signify social justice to mean ‘equality as normalisation’ – that is, the concept does not convey equality as the making of the ‘other’ into the ‘same’ through the assimilation of all in one (Fielding & Moss, 2012). Rather, it is

about willing the complexity of diversity and difference within and across the social ecology. Coming back in a somewhat circular fashion to the importance of social justice to education, Freire and Gramsci unpack how such 'truth' and 'Othering' is reincarnated by superstructures (churches, schools, media) and relations (family, teachers, peers) which thereby continue to re-loop the treadmill of exclusion, inequality and power-imbalance in society (Freire, 1970; Mayo, 1995).

The Dominant Discourse of Developmentally Appropriate Practice

Extending on this thinking, Dahlberg and Moss (2005) suggest that the globalised expansion of interest and investment in ECD has led to its 'institutionalisation' and to the prominence of a singular dominant discourse. This discourse, spoken in the Anglo-American language of developmental psychology, assumes objectivity, universality and normality (Dahlberg & Moss, 2005). It uses 'divide and rule' approaches that consider neither the situation nor temperament of children or their contexts. Child development approaches or developmentally appropriate practices, isolate children's development into compartments (such as physical, intellectual, social, emotional), which can then be separately measured and ameliorated. As Cannella (2002) describes it:

Child development is a discourse that has been constructed within a particular social, political, cultural, and historical context by one group of people with power over other groups. Used to legitimize the surveillance, measurement, control, and categorization of a group of people as normal or deviant, the discourse is linear and deterministic. Child development is an imperialist notion that has fostered dominant power ideologies and produced justification for categorizing children and diverse cultures as backward and as needing help from those who are more 'advanced' (p. 158).

Such analyses give rise to the importance of counter-hegemonic discourses that empower robust hope (Britt & Rudolph, 2013). A complexity-based paradigm challenges the assumed objectivity and universality of childhood. It acknowledges that education is not, and cannot be, neutral or pre-determined, and instead portrays

ECD as a “local, relational and diversely multi-faceted affair, of which the sum is greater than the addition of its parts” (Hayden, Mevawalla, Britt, & Palkhiwala, 2013, pp. 218-219). Complexity further acknowledges the imbalance of power and the non-linearity of social justice endeavours, by regarding the unpredictable and intractable nature of human interaction.

Complexity theory: An overview

Complexity theory in the human sciences focuses on the ways in which relationships make up connected networks or systems. It unpacks the intricacy of interconnections in the world, and questions the nature and influence of collective behaviours. It unpacks the intricacy of interconnectedness in the world, and questions the nature and influence of collective behaviours. It looks at “how autonomous agents can come together into more sophisticated, more capable unities and how, in turn, those grander unities affect the actions and characters of the agents that comprise them” (Davis & Sumara, 2005, p.454). It is therefore primarily concerned with the investigation of complex adaptive systems. Complex adaptive systems are self-organising and open systems - that is, sub-systems within systems. They are learning organisms and, as such, are not without a history. These systems have no centralised control; actors engage in non-linear interactions without the complete or absolute knowledge of the interplays amongst others (Mitchell, 2009). Complex adaptive systems also have emergent and recurrent properties. Emergence is a reflection of the unpredictable and uncertain nature of complex adaptive systems. Emergence is based on the understanding that:

The ability to reduce everything to simple fundamental laws does not imply the ability to start from those laws and reconstruct the universe...At each level of complexity entirely new properties appear. Psychology is not applied biology, nor is biology applied chemistry. We can now see that the whole becomes not merely more, but very different from the sum of its parts (Anderson, 1972, p. 393).

Emergence is what happens when interactions between elements form an unforeseeable ‘newness’. Recurrency, or the notion of having recurrent properties, is also a prevalent factor evident in complex adaptive systems. Recurrency can be described by positive and/or negative feedback processes within a system that subsequently impact the elements and the elementary interactions between them (Fowler, 2008; Waldrop, 1992). Similar to Bronfenbrenner’s (1979) thinking, this lens implies that childhood exists within the lived complexity of history, culture and society, and that therefore micro environments have the potential to significantly influence the macro and visa versa (Hayden et al., 2013). Coming back to the central contents of this article, this thinking lends itself to uncovering answers to the second sub-question about how social justice is reflected in the social, political, ontological and ethical purposes and practices ascribed to ECD systems.

To the Crucible: Social Justice, ECD and Complexity

Since complexity theory is concerned with the investigation of complex adaptive systems, the first step in applying complexity thinking to the social justice-ECD lockstep is to ask how can we conceptualise social justice as a pedagogical and lived praxis in an ECD system? In addressing this, Cilliers (1998, pp. 3-5) has identified ten criteria for defining a complex adaptive system. Whilst Cilliers (2010) has acknowledged that his is not a ‘be all and end all’ list, it does address the prominent components of complexity thinking, which put forward a basic framework highlighting the properties of a complex adaptive system. These criteria have been re-arranged in the table format below in the left column. In the right column, I have adapted these criteria for the analysis of ECD as a complex social justice undertaking (see table 1).

Criteria for Complex Adaptive Systems	ECD as a complex Social Justice Undertaking
1. Complex systems consist	Children, practitioners, families, educators, medical and allied

of a large number of elements.	health professionals and others within the broader community would constitute an ECD network of elements within this context.
2.The elements in a complex system interact dynamically.	As a community is interconnected, various flows of information ripple throughout the human network. Stakeholders exchange information and build connections with others in formal, informal, non-linear and multi-directional ways across a short range. Concurrently, it is through these interactions that social justice travels (in the form of action, knowledge and change).
3. The level of interaction is fairly rich.	The quality of human relationships within an ECD network is determined by various factors, however as these networks consist of an array of interdependent individuals, the interactions between these individuals are rich, as individuals must capitalise on resources to provide optimal opportunities for young children's development and the broader community. As not all interactions are equal, those that are excluded may not get the same access as others.
4. Interactions are non-linear.	Whilst there are various hierarchies of roles, positions and social statuses in an ECD network, the range of interactions amongst people within an ECD network are also non-linear - e.g. children learn from educators whilst also teaching them (Freire, 2005). Therefore, entities emerge unexpectedly through non-linear interactions. The power of different people lends to the weighting of positions and inequality across society.
5. The interactions have a fairly short range.	Individuals within an ECD network access local relationships, resources and practices that support development. Additionally, individuals are dependent on one another for gaining access to knowledge and resources and in advocating for change and social justice.
6. There are loops in interconnections.	Feedback and communication flows throughout the ECD system both formally and informally as individuals act upon the information available to them, and consequently communicate knowledge with others. As people can only act on what feedback and resources they have and receive, this raises equity issues.
7. Complex systems are open systems.	The ECD system operates within a larger system of the community, province, the state, the nation and internationally. As Bronfenbrenner (1979) once indicated, macro level changes and occurrences therefore have potentially significant influences upon

	young children, their families and communities.
8. Complex systems operate under conditions far from equilibrium.	Communities change, evolve and survive as complex entities with their own culture and ethnicity - and practices for social justice in educating and caring for young children shift accordingly.
9. Complex systems have histories.	An ECD network will have certain social origins that influence the inherent values attached to how it is understood within and across contexts (Rizvi, 1998). Similarly, people in different systems will understand differently the meanings and connotations attached to social justice but those forming one ECD network will likely have shared experiences and intersubjective understandings of constructs.
10. Individual elements are ignorant of the behaviour of the whole system in which they are embedded	Individuals within an ECD community operate based on the knowledge available to them locally, as such no one individual knows the extent or entirety of interactions forming the broader system.

Table 1. ECD as a complex social justice undertaking

As described in Table I, social justice is a culture that develops within and through ECD systems – where the ECD system (like all human systems) is made of relationships that are embedded in the social infrastructure of a community (that is then set within a broader society and so on). Social justice is inherently a human and emergent set of values. It arises as a result of the networked interactions amongst actors within the context of a system’s history and society. As such, there can be no singular, linear trajectory for ‘achieving’ a socially just and democratic society – these ideals cannot be plucked from one society and replicated into another, nor can they be imposed upon young children (or anyone else for that matter). The underlying meanings attributed to these value-based processes are influenced by various factors (including context, socio-cultural history, background and demography) and therefore have diverse meanings, within and across groups of people (Dahlberg et al., 2007). These phenomena, like “many phenomena, can only be understood at the level of their emergence” (Davis & Sumara, 2010, p. 857). The application of a complexity lens to relational ECD systems is therefore useful in unpacking how

interconnected, non-linear and unpredictable elements influence social justice and democracy.

So what? Social Justice as the art of Participation, Inclusion & Equality in ECD praxis

Various analysts have argued that critical and transformative ECD is central to the development of social justice and democracy (Dahlberg et al., 2007; Fielding & Moss, 2012; Fowler, 2008; Moss, 2007, 2009). This aligns well with complexity thinking, as it implies that people with people, and people to people (Eyben, 2011), cause the pulse of social justice to beat in human systems. As human systems are learning systems of which young children are a part, education becomes the bridge through which such people to people learning exchanges and transformations occur. In accordance with the perspective of Rix, Nind, Sheehy, Simmons, and Walsh (2010), the functionality of ECD in the emergence of social justice then, might be the engendering of spaces for participation, inclusion and equality. Accordingly, social justice as a pedagogical praxis can be understood as that which occurs within the crucible (melting pot) of relationships in which participation, inclusion and equality are sought in the occasions, spaces and experiences of learning, regardless of the conditions confronted (Freire, 1998).

Participation & Emergence

Participation in ECD as a social justice endeavour may be conceived as the active protagonism of agents (children, families, educators and others) working to transform the world. As complex systems are endogenous, “the knowledge, experiences and perceptions of those within the system also actively influence the system... [this emphasises] the importance of participation and dialogue in localising and personalising experiences in order to organically engender spaces for human possibilities... [which] explains how concepts of democracy and social justice evolve” (Hayden et al., 2013, p. 219). Accordingly, following Rinaldi’s (2005) perspective

from Reggio Emilia, a complexity lens propagates the importance of participation through 'truly listening' (Hewett, 2001) to young children's voices and viewpoints.

The praxis of participation can provide an opening for children, families and practitioners within and outside of ECD settings to engage in the political aspect of social justice. This may be through subtle interactions (such as educators' daily interactions with children and families) or broader collective interactions (such as those that beget thoughtfulness of the purpose of education and educators). Underlying both these minute and grand threads of social justice in ECD systems, is the broader ethic of listening to those who are 'othered'. According to complexity thinking, collective and community participation is specifically relevant given that human systems involve a number of people interacting and re-interacting extensively, and at times, these relatively simple local interactions can result in unexpectedly magnified outcomes (emergence).

In this manner, participation as a social justice undertaking engenders an understanding of the politics of agency. Participation, very actively, is a verb that is woven by "thinking which does not separate itself from action, but constantly immerses itself in temporality without fear of the risks involved" (Freire, 1970, p. 73). Education, in this sense is itself a process of participatory action research (Horton & Freire, 1990) – that critically confronts and troubles injustice. This process of education as participatory research in and of itself forwards social justice as it politicises education through the importance of children engaging in critical thinking - thereby advancing their thinking (by thinking for themselves) as opposed to replicating the thinking of others (Hewett, 2001).

Inclusion & Recurrency

Building on this idea of education as participatory research raises the importance of recurrency or recurrent feedback elicited from young children, families and others within the system. If, as Friere notes, education is not (and cannot be) apolitical

(Shor, 1993) then it cannot be the transfer of objective knowledge – as all knowledge has a social origin that privileges particular ideologies. Freire continues that for an authentically transformational and socially just education to occur, there must be recognition and resistance of the power of ‘neutral’ and ‘objective’ forms of knowledge (Freire, 1998). Accordingly, valuing the diversity and multiplicity of local knowledge is significant in striving towards inclusive education. As Freire (1998) suggests:

Why not discuss with the students the concrete reality of their lives and that aggressive reality in which violence is permanent and where people are much more familiar with death than with life? Why not establish an “intimate” connection between knowledge considered basic to any school curriculum and knowledge that is the fruit of the lived experience of these students as individuals? Why not discuss the implications, political and ideological...? (pp. 36-37)

In a similar manner, Cologon (2010) argues that “inclusion is really what teaching is” (P. 45). This sentiment is imbued with the relational sense of belonging, respect, diversity and self-determinism that makes inclusion “a framework within which all children [and adults], regardless of ability, gender, language or cultural origin, can be valued equally with respect and provided with equal opportunities” (Prosser & Loxley, as cited in Cologon, 2010, p. 45). If inclusion is teaching, then perhaps this teaching is accepting, socially relevant and critically engaging - in that it uses problem-posing education (Freire, 1970) to open spaces for meaning-making via the analysis of reality.

Inclusion as a social justice endeavour links to recurrency, as complex systems are open systems. It is important to discern children’s voices in the immediacy of shaping their local ECD environments and programs as positive feedback amongst actors’ influences and is influenced by understandings from local happenings. Feedback that stems from the bottom-up has the potential to influence broader systems - raising awareness of young children’s salutogenic capacities, power, agency and participatory rights. This thereby shapes social justice goals and challenges pervading notions of ability in these contexts. Specifically, where

pervading notions of ability compartmentalise (divide) children into beings that (do or do not) require 'investment' or 'intervention' (Hayden et al., 2013) – the importance of eliciting feedback from those 'invested in' is paramount as “one does not liberate men by alienating them” (Freire, 1970, p. 52). Moreover, using a complexity-based framework to immerse in and draw out local narratives, by multiple local stakeholders within the system, can afford transparency and local understanding that combat technical constructions of 'investment' and 'intervention'.

Equality & Power through Non-linearity

Rather than over-simplifying and reducing children's differences and relationships (Fleener, 2008), supporting the valuing of difference and diversity can disrupt the 'regimes of truth' that support the top-down enforcement of knowledge as power. Equality - that is the reciprocity of humanisation for all people, via respectful and meaningful praxis of valuing difference and diversity (Freire, 1985) - emerges from the deconstruction of power. Fowler (2008) has suggested that the use of complexity-based frameworks over other linear frameworks can critically analyse the imposition of top-down interventions that disempower and silence the 'other'.

As traditional education views equality as conformity through education (MacNaughton, 2003), it purveys the acceptance of inequality, the current status quo and the importance of authority (Sullivan, 2006). In understanding that within ECD systems, all relationships are capillaries and passages for power, alternative forms of education that value creative alternatives, curiosity and grit shape education as the praxis of liberation (Freire, 1985). Viewing children's engagements with power and authority as political acts that interrupt and resist the dominant discourse and status quo characterises the non-linear nature of social justice as being of equality and education. Equality as a social justice praxis “invites students to question the system they live in, and the knowledge being afforded to them, to discuss what kind of future they want, including their right to elect authority and to remake the school and society they find” (Sullivan, 2006, p. 42).

According to this way of thinking, education adopts the amenities of critical thinking and of children as co-researchers with agency who learn endogenously (from the bottom-up). It respects the rights of learner to 'name the world' (Freire & Macedo, 1987) whilst building upon their autonomy and contextual knowledge and values. This creates a space for resistance against the unjust elements of society and therefore challenges the perceived linearity of oppressive relationships (such as the teacher-student relationship). Resistance as a theory for transformational pedagogy in ECD systems, is particularly relevant against the backdrop of standardised testing, and discourses that promote power imbalances through classroom competition as opposed to collaboration (Freire & Macedo, 1987). All social justice education deals with power – this highlights the importance of engaging educators in discussions of counter-hegemonic discourses such as those of resistance, in order to engage with unknown, complex alternatives for education that are creative and critical (Fielding & Moss, 2012).

Understanding social justice as the judgement of values that emerge in contexts, raises the importance of practitioners resisting the stranglehold of outcomes, accountability and the culture of distrust (Wrigley, Lingard, & Thomson, 2012) to make space for social justice as an art of pedagogical praxis – not only with students but also amongst broader communities of learners (e.g. amongst practitioners themselves). As Britt and Rudolph (2013) highlight, opening spaces for reimagining the possibilities of social justice through the local and practical meaning-making of difference and diversity in the classroom is a complex but humanising (ad)venture. As Giroux (2007) further highlights, the need for counter-hegemonic discourses that support thinking about equity and resist the restrictions of injustice in society are now more than ever, necessary. Therefore, using the pedagogy of listening as the pedagogy of social justice through participatory research as education, troubles the imbalance of power and the passages it uses to negate equality.

Conclusion

Whilst childhood is ubiquitous, it is a diversely complex phenomenon full of discourses, practices and perspectives which have not evolved ahistorically (Wong, 2007; Woodrow, 1999). The architecture of complexity theory implies that social justice education occurs “with a richness or ecology of interactions that makes prediction with certainty impossible” (Fleener, 2008, p. 74). Accordingly, to use complexity theory to look back at the central guiding question in this paper (that is, what kind of education captures the complexity of social justice as it unfolds, without reducing the diversity of this magnanimous concept, or over-simplifying the interconnectedness of its relationships to broader political, socio-cultural and ethical branches?) highlights the emergent nature of social justice in ECE. At the risk of providing an over-simplified answer to this inquiry, it could be said that the opening for one (of many possible) answers to this question lies in – a relational and ethical education. Such an education would trouble the power and politics of oppressive engagement by reflecting people as “transforming rather than adaptive beings” (Freire, 1970, p. 102) that are creative, experimental, passionate and critical in their praxis and valuing of participation, inclusion and equality. As ECD is a uniquely situated ‘meeting space’ for various stakeholders, it is a prime environment for reflecting on and envisioning the tomorrow in which we hope for social justice and democracy to be lived (Pelo, 2008).

Endnotes

1. Early childhood development (ECD) is known by many terms such as early childhood education (ECE), early childhood care and education (ECCE), early childhood education and development (ECED). ECD is used here in an inclusive manner, referring to all aspects of the sector – education, care and development.

2. Whilst the term education itself has had many historical debates behind its meaning (Moss & Urban, 2010), this paper follows Fielding and Moss (2012) conceptualisation of ‘education-in-it’s-broadest-sense’, thereby situating the

term 'early childhood education' within the broader understanding of education as "fostering and supporting the general well-being and development of children and young people, and their ability to interact effectively with their environment and to live a good life" (Fielding & Moss, 2012, p. 46).

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