# Neoteny, Dialogic Education and an Emergent Psychoculture: Notes on Theory and Practice

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*This article argues that children represent one vanguard of an emergent shift in Western subjectivity, and that adult-child dialogue, especially in the context of schooling, is a key locus for the epistemological change that implies. Following Herbert Marcuse's invocation of a 'new sensibility', the author argues that the evolutionary phenomenon of neoteny—the long formative period of human childhood and the pedomorphic character of humans across the life cycle—makes of the adult-collective of school a primary site for the reconstruction of belief. After exploring child-adult dialogue more broadly as a form of dialectical interaction between what Dewey called 'impulse' and 'habit', three key dimensions of dialogic schooling are identified, all of which are grounded in a fourth: the form of dialogical group discourse called community of philosophical inquiry (CPI), which is based on the problematisation and reconstruction of concepts through critical argumentation. As a discourse-model, CPI grounds practice in all of the dialogic school's emergent curricular spaces, whether science, mathematics, literature, art, or philosophy. Second, it opens a functional space for shared decision-making and collaborative governance, making of school an exemplary model of direct democracy. Finally, CPI as a site for critical interrogation of concepts encountered in the curriculum (e.g. 'alive', 'justice', 'system', 'biosphere') and as a site for democratic governance leads naturally to expression in activist projects that model an emergent 'new reality principle' through concrete solutions to practical problems on local and global levels.*

In a very persuasive article published in this journal, in which she argues against the claims of several academic philosophers that children are not capable of philosophising, Karin Murris (1999) wrote, 'With the philosophical critique of the Western notion of "disembodied rationality",

awareness is growing that children's thinking is not inferior to that of adults, and that children deserve to be listened to' (p. 269). This would indicate a historical phenomenon, and a process of what Paulo Freire called 'conscientization'. We were not aware before, but now awareness is growing. Why then is it happening, and what sort of historical movement does it form a part of? Is it an aspect of 'extending rights and respect to all people'—the move to respect difference? Or is it something we've done before—like listening to the 'wisdom of the child', or 'the voice of innocence'? Although both of those impulses may be involved, I don't think that's exactly what Murris is talking about, or what we're listening for when we engage in conversation with children. Following her lead, I would argue that we're listening for what follows when the 'Western notion of disembodied rationality'—that is, the Cartesian paradigm—breaks up and begins to transform. We're listening for the (r)evolutionary emergence of what the social philosopher Herbert Marcuse, whose thinking I will also be working from here, calls a new form of reason, which he associates with a 'new sensibility'. This article will be dedicated to exploring the part that children may play in that emergence, particularly in the context of the school and of the discourse model we call 'community of inquiry'.

There is plenty of evidence, at least in the history of Western thought and ethical culture, of epistemological change over historical time, which has led to new ontologies, new anthropologies, new values and convictions, and new scientific theories—all of which contribute to emergent forms of modal subjectivity. The last one hundred years have witnessed accelerating technological development, resulting in a changed and still changing information environment, the subjective importance of which can be summed up in Walter Ong's (1982) observation that 'intelligence is relentlessly reflective, so that even the external tools that it uses to implement its workings become "internalised", that is, part of its own reflexive process' (p. 81)—an observation reinforced by the recent 'neurological turn' in theories of intelligence. Ong also implies (1967) that a historical form of intelligence is a dimension of a historical 'sensorium':

> Man's sensory perceptions are abundant and overwhelming. He cannot attend to them all at once. In great part a given culture teaches him one or another way of productive specialization. It brings him to organize his sensorium by attending to some types of perception more than others, by making an issue of certain ones while relatively neglecting other ones (p. 6).

In *Eros and Civilization* (1955*)*, Marcuse argues that the reorganised sensibility/sensorium he is proleptically summoning is an emergent property of a culture in which it is generally recognised that scarcity can be overcome through technological advance, thereby obviating the need for 'surplus repression', thus making possible a 'new reality principle' based on a transformed 'libidinal economy' and an 'aesthetic morality'. In a later work, he characterises this emergent form of subjectivity as 'express[ing] the ascent of the life instincts over aggressiveness and guilt', and dedicated

to 'the collective practice of creating an environment . . . in which the nonaggressive, erotic, receptive faculties of man, in harmony with the consciousness of freedom, strive for the pacification of man and nature' (p. 31)

The ground has been prepared for sensorial and epistemological shift, it might be suggested, by explorations and discoveries that sew epistemic crises—crises of boundary, scale and visibility, which produce a sort of vertigo. Quantum physics has blurred the subject-object boundaries and produced a crisis of objectivity. The exploration of inner space in psychoanalysis, of intersubjective space in cultural anthropology, of cosmic space and nanospace through new technological optics, the new intervisibility resulting from planet-wide human migration—all of these influences lead to a new sort of nomadism, and to a globalised world perhaps better described in the vocabulary of Gilles Deleuze and Felix Guattari (1987) as reflecting 'intensities' and 'flows', 'lines of flight', de- and re-territorialisations, or instances of 'becoming-other'. And this epistemic crisis is synchronous with multiple economic, social, psychological and political crises of scale, balance, boundary and governance associated with late technocapitalist economies and their correlates: climatic changes, dramatic economic inequalities, perpetual war, and grave environmental degradation.

The epistemic change in question might be described as a dialectical evolutionary gambit. It is dialectical in the sense that it is, first of all, urged forward by contradictions within the whole system, and second, in the sense that earlier elements of the system can be restated in a 'sublated' way in the emerging structure. Compare, for example, classically defined 'primitive' animism, young children's animism, and the animistic tendencies of process philosophy, or the 'quantum animism' of the physicist Nick Herbert (1995), Rupert Sheldrake's (2009) morphic fields, and James Lovelock's Gaia theory (1979), of which the latter are attempts to overcome our deep enculturation into mind-matter dualism, and to rethink some fundamental ontological issues (see Skrbina, 2005 and Kennedy, 1989). We can find statements of each in each of the others, and as such we could say that each is one limited response to a question based on an intuition of the unity of mind and nature that is continually restated in different historical contexts and in different discourses. As such, epistemic change is continuous discursive reconstruction.

It is also psychological: it results, not just in a new episteme, but also in an emergent psychoculture. It involves new forms of modal subjectivity. An epistemic system has not changed until it changes the thinking—not just the abstract or theoretical thinking but the intuitive insights and the practical, everyday reasoning and decision-making—of a collective. Even more it is, Marcuse (1969) insists, 'aesthetic' in the etymological sense of 'felt'. It is embodied. It is what he calls a particular form of 'human nature' or set of 'needs and satisfactions', which is marked most significantly by the way we experience nature and the lived world. It operates at the perceptual level, and only from the level of perception—of what we see and touch and how we feel about it, how our body 'explains' it—does it lead to the formation

of different scientific and moral concepts. In his announcement of a new sensibility, Marcuse foresees a new onto-epistemological model 'that replaces the bifurcated practice of separating the social from the natural, the objects from the subjects' (quoted in Pierce, 2009, p. 148). This transformed post-Cartesian superstructure is, for Marcuse, what can save us from the culture of domination, violation, exploitation and destruction of our own biosphere, a planetary culture from whose iron grip we are finding it difficult to extricate ourselves. It was a new form of 'sensuous reason' that Marcuse, in the late 1960s and early 1970s, strove to articulate, with the admonition that 'liberation presupposes changes in [the] biological dimension, that is to say, different instinctual needs, different reactions of the body as well as the mind', in which 'cultural needs 'sink down' into the biology of man' (1969, pp. 17, 10). And the goal of this is, he claims, a human being whose 'second nature' has raised an 'instinctual barrier against cruelty, brutality, ugliness' (p. 21), product of a 'revolution in perception which will accompany the material and intellectual reconstruction of society, creating the new aesthetic environment' (p. 37), where 'freedom [has become] a biological necessity', and we are 'physically incapable of tolerating any repression other than that required for the protection and amelioration of life' (p. 28).

## NEOTENY AND ADULT-CHILD DIALOGUE

Where might children and children's thinking—and children's thinking voiced in settings of communal inquiry in particular—fit in the dialectical emergence of a new sensibility and form of reason, and how are children potentially unique agents of its emergence? In fact Marcuse associates its onset with what he calls the Great Refusal, an alienation against alienation, which he finds universally expressed in student and youth movements. These movements could be said to emerge from one high point of the long human childhood—adolescence—as its flower, but its roots must be searched for in earlier childhood. The child is the biological and cultural representative of the new, the emergent, and a concrete, literal embodiment of futurity—a futurity, in fact, *in its own image*. As Ashley Montagu (1989) wrote, 'The child is the forerunner of humanity—forerunner in the sense that the child is the possessor of all those traits which, when healthily developed, lead to a healthy and fulfilled human being, and thus to a fulfilled and healthy humanity' (p. 106). But this developmental pathway, this evolutionary possibility inherent in human embodiment itself, for which childhood is promissory note, is unimaginable apart from our species' *educability*. Education is the proof of our relative freedom from instinctual determinism, and its power—either negative or positive—is based on what both John Dewey and contemporary neuroscientists call the 'original plasticity' of the young, which is a primary aspect of *neoteny*, or the extraordinarily long period of relative immaturity in humans. Dewey, in fact, sounded the neotenic theme in 1922, when he wrote: '. . . the intimation never wholly deserts us that there is in the unformed activities of

childhood and youth the possibilities of a better life for the community as well as for individuals here and there. This dim sense is the ground of our abiding idealization of childhood . . . [which] remains a standing proof of a life wherein growth is normal not an anomaly, activity a delight not a task, and where habit-forming is an expansion of power and not its shrinkage' (p. 99).

As Montagu argues in his book on the biological and cultural phenomenon of neoteny, the term describes, not just our prolonged childhood and the opportunity it provides for personal and cultural reconstruction, but the human predilection for ongoing development and learning and consequent adaptive reconstruction *throughout* the life-cycle (1989, p. 106). Per neoteny theory, humans are *pedomorphs*. 'Evolution', Montagu argues,

> . . . has consisted of a shedding of the adult traits of our ancestral forms, and an increasing retention and development of the juvenile traits of those forms. Together with this has gone a stretching out of developmental periods, so that more time has become increasingly available for growth and development. The same processes clearly have been at work for functional and behavior traits. . . . It would be a great step forward if we ceased to regard childhood as a phase of development which terminates at whatever arbitrary age we decide upon and to perceive it for what it is, an extended period of growth which slows down, if at all, only after many years (pp. 61, 98).

The evolutionary gambit under the sign of neoteny assumes, then, that whatever its multiple and even chaotic causal influences, a new psychoculture emerges in and through the young *and* those adults who retain youthful characteristics. Education is the institution that operates either to reproduce a reified psychoculture and a modal subjectivity, or to provide a space—both temporal and experiential—for transformation in the emergence of new, more adaptive forms of intelligence and sensibility. Often, of course, we find some ambiguous mixture of these two extremes, but the advance of developmental neuroscience has at least given us several key indicators by which to evaluate change, all of them under the rubric of plasticity, or modifiability of the brain, which continues to grow through adolescence, and in which neuronal connections are created and modified long after they have reached a terminal state in any other species, resulting in greater cognitive and behavioural flexibility (Bjorklund, 1997). Most importantly for education, the connections that neuroscientists have discovered between experience and neuronal development would suggest that the brain is as much 'made' as it is found. Brain growth theorists postulate at least a working distinction between experience-expectant and experience-dependent development (Johnson, 2008, 2011), and we may think of the intergenerational meeting place called 'school' as one crucial site of the latter—a cultural space that the extraordinarily long period of childhood makes a psycho-cultural laboratory, from which the 'new brain' of an altered modal sensibility promises to emerge.

Joseph Chilton Pearce, who also frames our evolutionary potential in terms of brain development during the primary neotenous period of

childhood and adolescence, argues that for evolutionary change to occur, a *model* is necessary—that, 'from the beginning of our life, the characteristics of each new possibility must be demonstrated for us by someone, some thing, or an event in our immediate environment . . .' (2002, pp. 5–6). In the case of the adult-child relation, both at home and at school, life-course neoteny-theory would suggest that the model is bi-directional. If the result of successful education is—in keeping with the post-(French) revolutionary Romantic educational ideal, stated by Samuel Taylor Coleridge as 'carry[ing] on the feelings of childhood into the powers of manhood' (quoted in Abrams, 1971, p. 378)—a neotenic adult or 'pedomorph', the school teacher is one who, in encouraging both the 'feelings' *and* the 'powers', acts as a mediator between the two. This reconstructed role of the teacher, which could be said to characterise what is now called progressive education since its first stirrings in that same post-revolutionary Europe of the early 19th century, is stated at the end of the 20th by Paulo Freire under the sign of dialogue. Freire (1965) calls for the 'resolution' of the 'teacher-student contradiction'—that is, the struggle between child and adult—in what he calls 'problem-posing education', whereby, 'through dialogue, the teacher-of-the students and the students-of-the-teacher cease to exist and a new term emerges: teacher-student and students-teachers. The teacher is no longer merely the-one-who-teaches, but the one who is himself taught in dialogue with the students, who in turn while being taught also teach' (p. 72). This form of dialogue is also suggested in Dewey's (1956) formulation, at the end of the 19th century, of the mediation of what he called the 'gap' between the child and the curriculum, where the child stands for the original impulse to inquiry and is implicitly pre- or proto-disciplinary: the spontaneous playful inquiry of the child is pre-scientific, pre-literary, pre-mathematical, and so on; while the curriculum represents the finished product, categorised into the 'disciplines', of thousands of years of that very inquiry that each child begins anew. Under the sign of dialogue, the teacher attempts to close this gap by working with the child's inquiry and not against it, and by delivering the curriculum in a form that evokes the child's 'wholehearted purposeful activity' (Kilpatrick, 1918).

Most generally speaking, the adult models the culture, the given, the inherited, the accumulated patterns of the species—the current forms of adaptation, the structures of understanding, the knowledge base, the ethos, the ethical and moral superstructure. It is in the child's interactive experience with these models that the neuronal structure of each individual brain develops, through synaptic exercise and consequent myelination, which preserves the emergent neuronal architecture against the periodic hormonal purging of unused potential pathways. The 'original modifiability' or neuronal plasticity of which both Dewey and the neuroscientists speak is literal: the immature brain is in fact physically organised differently by interaction with different experience.

The child models neotenous characteristics—among which Montagu (1989) has identified '. . . love, friendship, sensitivity, to learn, curiosity, wonder, playfulness, imagination, creativity, open-mindedness, flexibility, experimental-mindedness, explorativeness, enthusiasm, joyfulness,

honesty and trust, compassionate intelligence' (p. 107) as a Novum, a utopian horizon—forms of potential social transformation, not yet fixed into patterns, which disrupt the more fixed patterns of the adult and challenge them to transform. The dialogue is between emergent structure, here standing for 'child', and relatively fixed structure, here standing for 'adult'. The assumption of dialogue is that both terms of the relation are liable to transformation through their interaction. The assumption of mutual modifiability of adult and child in relation is, I would suggest, the key difference between traditional and neotenic forms of education.

One useful formulation of adult-child dialogue is Dewey's (1922) notion of a dialogue between 'impulse' and 'habit'. The two are in continual interaction—whether struggle, uneasy partnership, or some kind of conversation. Both are fundamental to individual, dyadic, and group experience. Habit represents naturalised, or reified, or codified initiative and response patterns to the novelty of every situation—we use things that worked before. The problem is that every situation has irrepressible emergent characteristics—it keeps changing. If we were completely un-habituated we would be in a fugue state—mad—to the extent that, as Dewey said, habits '. . . constitute the self. In any intelligible sense of the word will, they *are* will' (p. 25). If we were completely habituated— if every response and initiative were based on a response to a past situation—we would also be mad, because our habits or habitus would no longer be adapted—we would be responding to a projection from the past. Given that 'selfhood (except as it has encased itself in a shell of routine) is in process of making, and . . . any self is capable of including within itself a number of inconsistent selves, of unharmonized dispositions' (p. 137), intelligent behaviour requires habits that are flexible—permeable constructs, capable of revision and reconstruction in adaptive response to the now—that can distinguish projection from what reality there is in the open space of the present situation.

Impulse is Dewey's word for the spontaneous experience of the present situation, which we may associate with C. S. Peirce's 'firstness', with Freud's 'libido' (instinctual energy or nisus), Henri Bergson's *élan vital* or vital impetus, Martin Buber's 'originator instinct', and G. H. Mead's 'I' as opposed to the 'me' of habit—in short, desire. It can manifest in many forms, destructive as well as constructive (although the phrase 'impulse-ridden' describes a kind of habit), but in children it is often identified with all the traits that Montagu associates with the permanent childlike characteristics of the human species—'questing, striving, questioning, seeking . . . curiosity and excitement in the enjoyment of new experience' (1989, p. 53). It is the energy that challenges habitual response—that acts to disrupt it up, transform it. In optimal situations, its effect is to loosen it, to open it up, to bring it into the present, to reconstruct it. On a larger scale, it signifies, not just the individual's 'power to re-make old habits, to re-create' (Dewey, 1922, p. 97), but 'a future new society of changed purposes and desires' (p. 96).

Typical child-adult interaction embodies a conversation between impulse and habit. The adult brings models of habit to the table, including the habits of categorical thinking that divide the scholastic world into fields and

disciplines—which Dewey calls the 'logical'—and the child brings the 'psychological' in the form of impulses that encounter habit as expressions of her 'own vital logical movement' (1986[1938], p. 181) in the desire to investigate, to make or construct things, to speak and communicate, and to express thoughts and feelings (1956[1897], pp. 57–61 *passim*), all in the interest of a highly personal inquiry. The adult brings the habitus of the age: implicit epistemological beliefs and assumptions, explicit and implicit doctrines, felt truths, spoken or unspoken proscriptions, aesthetic rules, attitudes and relational styles, all of which imply ontological convictions, often pre-conscious, whether based on scientific or religious or cultural epistemes. These, as we have seen in Marcuse's formulation, are encoded in perception itself, and have immediate implications for how we *experience* what is alive and what is not, about whether we *feel* that killing animals for food is a fundamental violation or not, about what we can be said to 'own', about what constitutes a 'just war', about the boundaries between private and public property, about whether what is right for me can always be the 'right thing to do', and so on.

The child brings, first, a quite literal 'standpoint epistemology', concretely illustrated by Paul Ritter, who at the University of Nottingham in 1968 created a mock-up of two rooms that was two-and-a-half times actual adult scale. A papier-mâché man sitting on the papier-mâché couch is completely hidden by the newspaper he is holding. The couch has to be climbed like a cliff. The lamp on the table looms above one like the Eiffel Tower; '. . . it brought gasps of astonishment from the visitors' (Ward, 1978, p. 23). From the child's standpoint, how do other animals appear? Or those psychological characteristics of adults that we adults take to be normal? Or the perceptual world of nature itself? When trees move in the wind, is it a sensuous experience for them? Is there really more than a rather superficial difference between the way humans and animals think?

The child represents what Maurice Merleau-Ponty (1964) called the 'polymorph' (p. 110)—'not an absolute other, nor the same' as the adult— which amounts as well to a polyvocalism, which is associated with a heightened (relative to adults) capacity for mimesis—mimicry of multiple viewpoints that arises from being, because one is less 'disembodied', in a more direct feeling-relation with the world and with others, and a form of temporality more closely allied with Bergson's 'pure duration', or 'qualitative multiplicity'. Matthew Lipman, founder of Philosophy for Children and applied philosopher of childhood, modelled his novels for children intuitively on the narrative fantasy that the child—in dialogue with others—is in fact capable of reproducing in some form all the major philosophical standpoints in the canon—whether Descartes' *cogito ergo sum*, Plato's innatism, Locke's sensationalism, Berkeley's idealism, Kant's phenomenalism, James' radical empiricism, and so on.

The child as model for the adult is then a representative of a form of intentionality, and not an individual subject. In fact it models, under the sign of impulse, the *un*subjected subject, that 'admirable indetermination' that J-F. Lyotard and Gilbert Larochelle (1992) refer to as *infancia*, Deleuze and Guattari (1987) as 'becoming-child' (even children, they insist, must

become-child, and enter the childhood 'block' or zone)—an affective and noetic space before the Father, without predetermined categories of identity and experience, which is in continual transformation, and involves unlocking affect in new combinations and flows (Kennedy, 2013). This is indeed a Romantic formulation of the child as—not 'angel' (in fact there is nothing sentimental about the Romantic child)—but 'genius' in the sense of the child as emblematic of an original unity beyond good and evil, and of another form of temporality that the philosopher of childhood Walter Kohan, following Heraclitus, has called 'aionic', as opposed to the 'chronic'. The power of aionic time is, in his view, its intensity, its breath of destiny, its 'un-numbered movement, not successive, but intensive' (Kohan, 2012, p. 173). As such 'child' is, in Wordsworth's familiar words, the 'great birthright of our being', an archetype available only symbolically and, if we follow Schiller, in the experience of play, that 'third joyous realm' that 'makes man complete and displays at once his twofold nature' (1981, pp. 137 and 79). This child functions, as Schiller pointed out in another location, *prophetically*: 'The child is . . . a lively representation to us of the ideal, not indeed as it is fulfilled, but as it is enjoined . . .' (1966, p. 87).

The adult—and especially the adult involved in the adult-child collective called 'school'—is in dialogue with the aionic character of being through her engagement with the actual child before her, who in turn is in dialogue with the chronometric and kairotic character of being through the adult. This engagement is a material one—in the world as we know it—and as such as vulnerable to the deep Hobbesian shadows of 'diffidence, competition and glory' as any other. The child is no less vulnerable to assuming habits of negativity than the adult—in fact perhaps more so, given her polymorphism. 'Child' in the Romantic formulation does not mean 'inherent' or 'natural' goodness—in fact it means before/beyond good and evil.

The contribution that childhood education may make to the new sensibility can, we must presume, take more than one form, and will vary across historical moment and culture. What do not vary across historical moment and culture are the evolutionary possibilities of an emergent psychoculture offered by the biological facts of neoteny and the experience-dependent brain, which provide a 'hard-wired' explanatory background for Arendtian natality. I have already suggested that 'progressive' or 'child-centred' education is at least one emergent (counter-) tradition in West that aspires to create the social and psychological space for the emergence of Marcuse's 'new reality principle' and 'new form of sensuous reason'. This tradition is ever-developing: after Freire we may call it 'dialogical education'; after the exemplar of Summerhill, early 20th century anarchist educational praxis (for which see Suissa, 2010, and Avrich, 2006), and the contemporary democratic education movement (for which see http://en.wikipedia.org/wiki/Democratic_education and www.idenetwork.org). And as I will argue below, Matthew Lipman's introduction of communal philosophical dialogue as a privileged form of educational discourse adds another dimension to this emergence in the form of a practice that involves continuous

discursive reconstruction through critical inquiry, and thus acts as a platform for epistemic reconstruction.

All of these assume, of course, utopian ideals—a 'future new society of changed purposes and desires'—and understand the school as only one, if a highly important one, institutional element in its ongoing creation. Nor is the utopia here envisaged a 'no-place', but rather a potential or virtual one, which, as Marcuse put it, 'is blocked from coming about by the power of established societies' (1969, p. 4). This utopia emerges not from without, but from within: it is rooted in 'a revolution in perception' (p. 37), or what the Romantics called a 'renovation of the senses' through a 'marriage of mind and nature' (Abrams, 1971, p. 113). This revolution is, following Marcuse, in fact an *e*volution of perception arrived at dialectically—that is through a resolution of the contradictions present in our historical situation, a 'third thing'. As such, it is not something that is imposed on the future, but rather something that one sees '*coming about*' in a more pedomorphic society, which in Deweyan terms may be described as a society composed of more adults whose habit structures are more adaptive, who are more capable, of '. . . utiliz[ing] . . . [impulses] for formation of new habits, or what is the same thing, the modification of an old habit so that it may be adequately serviceable under novel conditions', who recognise 'the place of impulse in conduct as a pivot of re-adjustment, in a steady re-organization of habits to meet new elements in new situations' (1922, p. 104).[1] The guarantor of this reconstruction is a corresponding society that is transitioning to what Marcuse called '. . . a higher stage of development: "higher" in the sense of a more rational and equitable use of resources, minimization of destructive conflicts, and enlargement of the realm of freedom' (1969, p. 3).

Certainly it is guided by a vision, a representation of *one* possible future, and it is adults who tend to be the keepers of that vision as it is enjoined; but that vision is, as I have argued elsewhere (Kennedy, 2006), triggered by the encounter with childhood, and to that extent it is children who co-initiate it, and who model its neotenic possibilities. The dialogical school is a site in which that encounter takes shape as an institutional form. The latter offers, I would suggest, a transitional cultural space in which the former is dramatized, coded and performed, and its evolutionary possibilities explored. In what follows I attempt to delineate the structural characteristics of that space, both as a historical phenomenon—a dialogical school for now, this period—and as a sort of platonic form: 'school' as dramatic, artistic, political, aesthetic expression of the adult-child relationship in its most dynamic aspects, and as promise of social transformation.

## FOUR DIMENSIONS OF DIALOGIC EDUCATION
### *The Child and the Curriculum*

The most prominent arena for adult-child dialogue in the context of school is, as Dewey has argued, in the relation between *child and curriculum*. A direct conversation between child-initiative and adult-initiative, between

impulse and habit, and between tradition and innovation is implicit here, and has concrete implications for the content and organisation of the school's course of study. A curriculum that is structured to engage the four instincts that Dewey identifies as construction, communication, investigation and expression, and that frames and reframes itself in response to children's neotenic impulses—'curiosity, wonder, playfulness, imagination, creativity, open-mindedness, flexibility, experimental-mindedness, explorativeness' and so on (Montagu, 1989, p. 107)—is one that adapts itself to the purposive interests of the child. This in no way implies that, in entering dialogue with the child's interest, the curriculum must necessarily sacrifice its logical structure or its status as cultural conservator. Dialogue operates from both sides, and the adult demands of rigor and continuity are as legitimate as the child's for relevance and immediacy.

The most natural operative medium for child-curriculum dialogue is art—the aesthetic—given the expressive and constructive direction of childhood impulse, and the neotenic status of art in human culture—its role in initiating new perceptual experience through exploration and invention. Art and making of all kinds—plastic arts, music, dance, writing, theatre, crafts, cooking, sewing, building, gardening—ground the impulse-habit relation in the body. They express the creative interaction between the conceptual and the material, and so provide wide bridges to the more abstract inquiries of history, psychology, sociology, science and mathematics, which the creative and resourceful teacher brings as responses to the process of artefact-making; for example, coterminous with children's pottery making, she launches a study project on ancient near-eastern archaeology, with an emphasis on the use of pottery as texts through which pre-history is read. This form of curriculum development—already known and practiced for 100 years (see Kilpatrick, 1918; Rugg and Shumaker, 1928; Katz and Chard, 1989) as the 'project method', is the most vivid expression of the dialogical nature of emergent curriculum, and creates a situation in which initiative is shared and negotiated between teacher and students, and in which disciplinary boundaries are crossed and disrupted in the interest of new connections, and ultimately in the interest of an emergent episteme.

## Community of Philosophical Inquiry

Community of philosophical inquiry (CPI), as a form of critical group deliberation on the epistemological and ontological status of the concepts that 'underlie' the curriculum—concepts like 'life', 'fact', 'justice', 'measurement', 'organism', 'system', 'mind', 'language', 'communication', 'culture', 'thinking', 'certainty', 'belief' and so on—adds a dimension that has not been present in school practice up until now, at least in a formalised operational structure. Ideally, it is the sphere in which the epistemological reconstruction that interaction with curriculum triggers finds a discursive form. Here, the 'big ideas' that are evoked and invoked through the child's interaction with materials, art, ideas, knowledge-bases, artefacts and practices, are teased out and identified, and the beliefs and assumptions that

support them are interrogated. These assumptions comprise the conceptual infrastructure of the current episteme, and the critical, experimental, transitional space of CPI encourages their deconstruction and, if only implicitly, their ongoing reconstruction. Although CPI is only one dimension of dialogic education, it is the most pervasive, in that it acts as a discursive model that frames the whole enterprise.

The assumptions that are uncovered through the child's interaction with the curriculum tend to revolve around the beliefs associated with the epistemological, ontological, and ethical concepts—'fact/opinion', 'belief/ knowledge', 'living' or 'alive', 'nature', 'human/animal', 'individual/ group', 'fair', 'right' (in all its senses)—that inform our 'big picture'. CPI is the laboratory of their reconstruction—the place where contradictions appear, and the drive for reorganisation is triggered. It is in this discursive space that formal schooling redeems its traditional role as a place apart, disassociated from everyday work and knowledge, that has, from its beginnings, distinguished the school from the 'village curriculum' (Lancy, 2008; Lancy *et al.*, 2010), which is oriented to adaptation rather than transformation. The difference here is that it is a space of critical questioning rather than implicit affirmation, of the evolutionary gambit rather than socioeconomic reproduction; it functions in the interest of the new, emergent episteme that is governed by the neotenic impulse, rather than the old, which is governed by gerontomorphosis.[2]

Community of philosophical inquiry is the public heart of the speech community in dialogic education, the site where deliberative reason as process and activity trumps personal power or manipulative skill, irrational authority and group-think. As a discourse-model, it grounds practice in all the school's curricular spaces, whether science or mathematics, literature, art, or philosophy *tout court*. Philosophy as identification and critical interrogation of concepts is in fact its primary language: problematising, hypothesising, instantiating, connecting and distinguishing ideas, reflecting on one's own or the group's thinking. Every school content area has a philosophical under-structure—a network of concepts held together by epistemological, ontological, and axiological beliefs and assumptions based on those beliefs. CPI is the site for the identification and problematisation of those beliefs, and in this sense every disciplinary community of inquiry—whether math, science, literature and so on—is by definition also a community of philosophical inquiry. CPI is the zone of confluence, the discursive space where the lineaments of our shared episteme emerge to view, and where its limits and its frangible margins, its aporias and its contradictions, its anomalies and inassimilable counterexamples, offer themselves for critique and ongoing reconstruction.

In the dialogic school, CPI guarantees children a discursive space in which they may both express their standpoints and affirm, question and contest the received beliefs—from parents, media, peers, and the 'wheels' already inside their own heads—that, they discover, have been 'received' differently by different people. One discovers that not everyone thinks alike—not even oneself and oneself—and that our beliefs are based on assumptions which bear examination through the giving and testing of

reasons, exploration of implications, and the challenge of thinking normatively. This epistemological scepticism is related to what Marcuse called the 'great refusal', the alienation from alienation that he understood as the necessary precursor to a new form of reason—necessary in a world in which technocapitalism has colonised our very instinctual structures, our perception, our wants and needs. This is often perceived by adults as a dangerous space, for it overturns that very construction of the child that legitimates, as Dewey (1922) said, 'an impatient, premature mechanization of impulsive activity after the fixed patterns of adult habits of thought and affection' (p. 96). This open space of dialogue and interrogation, into which adults enter themselves, not just as models and coaches but as interlocutors, requires them to rearrange their thinking about what they are hearing and who they are hearing it from—not to understand children's formulations as naïve, or random, but as fragments of an emergent world-view in the making. Adults, both as models and coaches of group argumentation and as interlocutors, support a dialogical space that, in its very interactional structure, challenges the natural social-survivalist camouflage-position that children (and adults) often take in repeating the received ideas they hear from parents and other authorities, peers and media.

## *Democratic Practice*

A third, closely related dimension of dialogical school practice opens directly from the philosophical dialogue of CPI into the practical, ethical, collective action-space of democratic world-making. As an approximation of an ideal speech situation, CPI offers a functional space for shared decision-making and collaborative governance within the adult-child collective. This is a direct realisation of Dewey's 'embryonic society', one that is already present in the practices of the international democratic education movement. It implies a reconstruction of the relations of power, based on the assumption of children's capacity for social self-regulation in the context of an intentional adult-child collective, for the development of habits that allow for mediating and resolving conflicts of interest, and for the reconstruction of authority and personal responsibility and individual-group relations through 'direct democracy'. The reconstruction of personal and social habits related to governance, group-discipline, individual-group responsibilities, and to ways of dealing with violation of group norms, is a fundamental aspect of a new sensibility, for it addresses the habits—domination, exploitation, privilege, inequality, gratuitous hierarchy—that keep the old one in place. As a model of a self-governing community, the dialogic school provides a key site for the emergence of an authentic democratic subject, in whom, in Dewey's words, 'habit is plastic to the transforming touch of impulse' (1922, p. 102), and for whom 'situations into which change and the unexpected enter are a challenge to intelligence to create new principles' (p. 239).

The degree to which children exercise governing power over the curriculum itself—what is chosen to study and how that study will be carried out—is perhaps a key indicator of the dialogic character of a given school.

In actual practice, we find dialogic schools arrayed across a wide range between complete child choice and decision—characteristic of those schools that count themselves as members of the democratic education movement—and adult choice and control in schools in which adults respond to children's interests with projects and courses of study. The issue of children's power to determine their activities through the school day tests the deep structure of adult beliefs about childhood, which in turn are connected with beliefs about authority, human developmental process, freedom and responsibility, self- and social organisation and control (issues of *autopoiesis*), and the value of tradition, among others. These adult-held beliefs and assumptions inform the quality and tone of adult-child dialogue, and directly inform the balance and interplay between adult and child initiative in any given school situation.

## An Activist Collective

Finally, a fourth dimension leads from the interaction of the previous three into community expression as group production and activism. Concepts that are encountered in experiencing the curriculum—the concept of 'life' in biological inquiry, for example, of 'just war' in social studies, or of 'form and function' in science, art, architecture and town planning—enter a space of interrogation in community of philosophical inquiry. As a result of their normative interrogation there, they can be translated into an action-oriented ethical and political space—'what should we then do?' Through a process of democratic group deliberation, they are transformed into specific practical projects. The activist collective understands itself as implicitly connected with and responsible to the larger community, where projects that model the emergent reality principle enter the macrosphere of shared (and perhaps conflicting) values and conscientious action. Concrete projects dedicated to saving the biosphere, to speaking out against perpetual war and economic exploitation, to succouring the vulnerable and the marginalised, to building relationships with other adult-child collectives around the world—these are natural outgrowths of an emergent sensibility that is in the process of reconstructing notions of moral responsibility at the level of the collective. They move child adult-dialogue into an expanded sphere, where the pedomorphic 'embryonic society' of school encounters the often-dystopic policies and practices of the larger, adult-dominated society, and seeks to engage them through concrete solutions to very practical problems.

   To deny children knowledge of these problems or the opportunity to address them because they are complex and dogged, and seem continually to elude solutions through the best efforts of adults, is to deny knowledge to those whom adults typically invoke as those in whose name we wish to solve them: we seek a better world, we say, 'for our children'. Furthermore, it is children who are typically the first and most egregious victims of these problems. The school as adult-child collective is a logical place for these problems to be recognised, identified, and actively addressed, because it is under the sign of neoteny that we identify them as problems at all,

and because they are problems that violate on a profound level the value structure of a sensibility that, in Marcuse's words, has developed the pyschocultural basis for the Great Refusal: 'an instinctual barrier against cruelty, brutality, and ugliness', and for which 'freedom has become a biological necessity' (1969, pp. 21, 17). To argue that to invite children to study, ponder, and respond to these problems 'uses', or 'exploits', or robs intentionality from children is to marginalise them within the human community, and as such suggests subspeciation. In fact, if we recognise the possibilities for the emergence of new perspectives that 'standpoint epistemology' represents, children's understanding and grasp of the fundamental moral issues that these problems represent could very well provide unexpected insights.

## CONCLUSION: A NEW RELATION TO NATURE

The emergent reality principle that suggests a new sensibility finds, on Marcuse's account, its primary narrative in what he calls a 'new relation to nature'. This relation is the central element of his evolutionary thinking. I quote him at length:

> In the established society, nature itself, ever more effectively controlled, has in turn become another dimension for the control of man: the extended arm of society and its power. Commercialized nature, polluted nature, militarized nature cut down the life environment of man, not only in an ecological but also in a very existential sense. It blocks the erotic cathexis (and transformation) of his environment: it deprives man from finding himself in nature, beyond and this side of alienation; it also prevents him from recognizing nature as *subject* in its own right—a subject with which to live in a common universe. . . . Liberation of nature is the recovery of the life-enhancing forces in nature, the sensuous aesthetic qualities which are foreign to a life wasted in unending competitive performances: they suggest the new qualities of *freedom*. No wonder then that the 'spirit of capitalism' rejects or ridicules the idea of liberated nature, that it relegates this idea to the poetic imagination. Nature, if not left alone and protected as 'reservation', is treated in an aggressively scientific way: it is there for the sake of domination; it is value-free matter, material. This notion of nature is a *historical* a priori, pertaining to a specific form of society. A free society may well have a very different a priori and a very different object; the development of the scientific concepts may be grounded in an experience of nature as a totality of life to be protected and 'cultivated', and technology would apply this science to the reconstruction of the environment of life (1972, p. 235).

I have tried to suggest that the dialogical school is one cultural site where—in our time and place anyway—the historical a priori of a free society has a place within which to emerge and grow, through a process in

which both child and adult are active participants. This is in direct contrast to the historical function of schooling under capitalism and the nation state, or to any form of education which is dedicated—if not by its own nature, then by those who control it from above—to minimising difference, creativity and ongoing social reconstruction in the interest of gerontocratic structures of domination. This suggests to me that at this critical moment in our species history, our global situation of crisis encourages us to undertake a radical re-evaluation of the value and role of childhood in bio-cultural (i.e. brain-based) and cultural and social evolution, a re-evaluation that is summarised in the biological and psychological concept of neoteny, which in fact only emerged in the latter half of the 19th century (Montagu, 1989). It is just the qualities of childhood that adults require in order to reverse the trend towards planetary dystopia; and it is just education in the form of the adult-child collective of school—understood as a laboratory for the germination of a form of modal subjectivity that is, in Marcuse's words, 'grounded in an experience of nature as a totality of life to be protected and cultivated'—that provides the developmental niche (Super and Harkness, 1986) for such an ongoing evolutionary project.

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**NOTES**

1. This ideal could also be stated, following Winnicott (1971), as an adult who is more capable of negotiating 'transitional space', and following Schiller (1981), as an adult who is more sensitive to the 'play impulse', which in Marcuse's rendition is related to the emergence of 'sensuous reason'.
2. Montagu (1989) characterises gerontomorphosis as 'a form of evolution by specialisation [development of special adaptations to a particular habitat or mode of life] of the adult stages of successive independent developments. Its net effect is to decrease ability for further evolution and to expose species to extinction' (pp. 9, 253).

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