

***Change, difference and creativity:  
a perspective from the Cradle of Humankind***

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Abstract

This paper relates to work on a model of critical literacy that argues for the interdependence of concerns relating to power, diversity, access and design/redesign. Its focus is on diversity as a resource for change and creativity. Instead of working from a particular socio-historical context, I turn to two works of fiction *The Clan of the Cave Bear* by Jean Auel and *The Incredible Incident of the Dog in the Night-Time* by Mark Haddon in order to consider how difference is experienced and treated, in contrast to what it has to offer. I use fiction here as a licence for my own speculative play with 'big' ideas such as genetic mutation and evolution as well as a heuristic for thinking about the everyday practices of Othering and bullying.

Change is unsettling. It requires adaptability, flexibility and an open mind. This is beautifully illustrated by the story of a monk's uncertainty in the face of technological change. Whereas before he could work independently, now he is dependent on the IT Helpdesk. Although he has limited access to the new technology, his is greater than that of ordinary people on the other side of the New Literacies divide. What makes the story funny is that the monk needs help with the transition from scroll to book, while our own experience of dislocation has been from books to computers, from pens to keyboard, from pages to screens (that in turn require scrolling).

Saussure's notion of change as both synchronic and diachronic, is useful for understanding change that evolves. So at the same time (synchronic) as this monk started reading books, there were others still reading scrolls, and ordinary folk who were not yet reading. At any moment in time, different states of development co-exist. Over time, one may come to replace the other. This is known as a diachronic shift. Looking back, it is easy to see that the book replaced the scroll<sup>1</sup>. It is not yet certain whether computers will ultimately replace books. To this day, while some people have mastery of the latest information technologies, others are still unable to read and write. The basic skills of decoding and encoding print are the foundation for the high level symbolic manipulation that one needs to be a player in a knowledge economy. History shows that differential access to new technologies has been a function of exclusion based on the social categories of class, race and gender. Looking forward requires a futures perspective and educators have a responsibility to imagine the future that awaits students when they leave school and to prepare them for it.

In 2000, I developed a model for critical literacy education that argues for the interdependence of four orientations to work in the field. At the time these orientations were captured by four key terms: domination, diversity, access and

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<sup>1</sup> Scrolls are still used in Judaism.

Table 1: The interdependence of power, diversity, access and design

Power without access	This maintains the exclusionary force of dominant discourses.
Power without diversity	Power without difference and diversity, loses the ruptures that produce contestation and change.
Power without design	The deconstruction of dominance, without reconstruction or design, removes human agency.
Access without power	Access without a theory of power leads to the naturalisation of powerful discourses without an understanding of how these powerful forms came to be powerful.
Access without diversity	This fails to recognise that difference fundamentally affects pathways to access and involves issues of history, identity and value.
Access without design	This maintains and reifies dominant forms without considering how they can be transformed.
Diversity without power	This leads to a celebration of diversity without any recognition that difference is structured in dominance and that not all discourses/genres/ languages/literacies are equally powerful.
Diversity without access	Diversity without access to powerful forms of language ghettoises students.
Diversity without design	Diversity provides the means, the ideas, the alternative perspectives for reconstruction and transformation. Without design, the potential that diversity offers is not realised.
Design without power	Design, without an understanding of how dominant discourses/practices perpetuate themselves, runs the risk of an unconscious reproduction of these forms.
Design without access	This runs the risk of whatever is designed remaining on the margins.
Design without diversity	This privileges dominant forms and fails to use the design resources provided by difference.

design. In working with the model since then, I have been inclined to use the word *power* rather than *domination* to include both Marxist and Foucauldian theories of power; *redesign* together with *design* to signal the inclusion of transformation, which is central to the critical literacy project. I use *diversity* and *difference* interchangeably because in my theory diversity is always understood in relation to power, access and transformation. Similarly, each of the remaining key concepts is theorized in relation to the others. In order to understand how any one of these orientations creates a problematic imbalance, I consider the educational effects of any one without the other three. This is captured in (Table 1).

Since 2000, my work has focused on one or other of the key terms in order to make my thinking in relation to each more explicit and to tease out their relation to one another in more detail. In *Deconstruction and reconstruction: diversity as a productive resource* (Janks, 2005a) the focus was on diversity; in *The access paradox* (Janks, 2004) the focus was on access and in *Language and the design of texts* (Janks, 2005b) as well as *The place of design in a theory of critical literacy* (Janks 2006) the focus was on design. In this paper, the focus is again on diversity. Here I am interested in the relationship between difference and exclusion and difference and creativity.

In addition, I want to play with the idea that difference is a necessary condition for evolution. I use the word 'play' because I do not claim expertise in the range of disciplinary knowledges that I will bring together to argue that difference provides the means, the ideas, the alternative perspectives for transformation and creativity. Call it speculative fiction: the playful use of 'big' ideas to imagine a 'future what-if' that might affect the way we think about and value diversity now.

Darwin's theory of evolution is based on two central tenets. One is that there is a tendency in every species to form varieties and the other is that the process of natural selection determines which varieties become permanent. Since Darwin

published the *Origin of the Species*, the work of geneticists has been able to show that even a small variation that provides a selective advantage is able to spread rapidly and become established. The process of variation and change is continuous. From a synchronic perspective, this means that the differences we see today may lead to an evolutionary shift over time. The person sitting next to you may have the genetic advantage that will ensure the continuity of the human species, while you might represent the line to extinction. I wonder, for example, who amongst us has the genetic advantage to survive global warming? In this paper, I have deliberately chosen to think out of the box about human diversity in order to critique the normative project of schooling (Luke and Freebody, 1997) from a different perspective.

That variability is essential for evolution, does not make it any easier for people who are different to be accepted. Constructions of the Other as odd, unnatural, deviant, evil and a threat incite violence that ranges from teasing and bullying to gay bashing and murder. On a larger scale, the need to expurgate the 'dangerous' Other creates the conditions for 'ethnic cleansing', war against the 'axis of evil', and genocide. According to the findings of the Truth and Reconciliation Commission in South Africa,

a spiral of discourses increasingly dehumanised the Aother@ .... In this respect the [discourses] of racism, patriarchy, religions, capitalism, apartheid and militarism all intertwined to Amanufacture@ people capable of violence. (TRC, 1998, 7,125-131,295-296).

In order to bring these different ideas together, I turn to two novels, each with a central protagonist who is extra-ordinary.

The first novel, *The Clan of the Cave Bear*, by Jean Auel, is set in pre-historic times. Ayla, a young girl, is found by the Clan after she is separated from her own people by an earthquake. They take her in reluctantly.

She is not Clan. She has not had subservience bred into her for untold generations. She was one of the Others; a newer younger breed, more vital, more dynamic, not controlled by hidebound traditions from a brain that was nearly all memory. Her brain followed different paths, her full, high forehead that housed forward thinking frontal lobes, gave her an understanding from a different view. She could accept the new, shape it to her will, forge it into ideas undreamed by the Clan, and in nature's way her kind was destined to supplant the ancient dying race. (196)

Try as she might to conform, Ayla found the ways of the Clan too static and constricting. Because of her intelligence she found it difficult to submit to the menial position of women in the Clan, to the restrictions on their freedom of movement, to the prohibitions on what they could learn and do. Ayla's resistance was punished. One man in particular saw her as a threat. He exercised his right as a man to beat her and to abuse her sexually <sup>2</sup>.

Females were supposed to be docile, subservient, unpretentious and humble. The domineering young man took it as a personal affront that she did not cower a little when he came near. It threatened his masculinity. (195)

As the adopted daughter of the medicine woman and a novice in training, Ayla had the freedom to roam for healing plants. She used some of this time to observe the men surreptitiously in order to acquire forbidden knowledge. She also used the privacy the roaming gave her to practice new skills. In this way she became adept at using a sling to hunt. As she gained experience she invented and perfected a complicated technique that enabled her to fire two stones in quick succession with deadly accuracy. The lore of the Clan was unequivocal: a woman who hunts must die.

In a dramatic moment in the novel, a hyena carries off a child of the Clan. When Ayla heard the child scream, without thinking of the consequences she reached for her sling, shot two stones and killed the hyena instantly. Her secret was out.

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<sup>2</sup> While women were expected to comply with any man's demand for sex, it was not common practice in the Clan for men to force themselves onto unwilling partners.

Not only did the idea of a woman hunting offend the Clan men's sense of propriety, they also feared the anger of the spirits. Moreover, they had to confront her creativity and the hunting advantage that it gave her; never before had the Clan been able to hunt predators so effectively and with so little personal risk. Her behaviour was so improbable, so alien to Clan ways, so unnatural, so radical that it challenged their belief system.

The whole concept of a woman hunting was so unique, so thought-provoking, that several of the men had been jarred into making the small incremental step that pushed the frontiers of their comfortable, secure, well-defined world. (313)

Each person's incremental step was related to his own area of expertise so one man whose child Ayla had saved from drowning worried about punishing an act that had saved another Clan child; the leader, in recognising that Ayla had been hunting predators for some time, wondered if this meant that the spirits approved; a holy man wondered if her totem, the cave lion, usually considered too strong for a woman, wanted her to hunt and even dared to think that her totem might be a lioness when previously all totems were assumed to be male; the old man, known for his prowess with the sling, was even able to suggest that as one of the Others, she should be allowed to be different. Each little step required a new way of thinking, a creative leap occasioned by contact with the Other.

For many this was impossible.

The traditions of the Clan make no allowances. A woman who uses a weapon must die. We cannot change that. It is the way of the Clan. (314)

Brun, the leader of the Clan, who has to make sense of all these new ideas, finds them almost overwhelming. 'In a corner of his mind he knew what an asset she could be to the clan' (p305) but in the end he rules that according to custom, Ayla has to be Cursed with Death. Under the Death Curse, it is as if you do not exist. You may not enter the Cave, no-one may recognise you, you may not take food,

clothing or medicine. You are sent out into the wild to die. What Brun does, however, is limit the Curse to one month, leaving the spirits to decide. Because Ayla has developed the survival skills she needs, including the ability to count the days, she is in fact able to survive the harsh winter conditions of the ice age to return from the dead. This is itself a mark of her difference.

What intrigues me most about this story, is that Ayla and the Others are on a different evolutionary path from that of the Clan. The Clan

with social conscience enough to care for their weak and wounded, with spiritual awareness enough to bury their dead and venerate their great totem, the race of men with great brains but no frontal lobes, who made no great strides forward, who made almost no progress in nearly a hundred thousand years, were doomed to go the way of the woolly mammoth and the great cave bear. They didn't know it but their days on earth were numbered, they were doomed to extinction. ... they had reached the end of their line. (503)

It is Ayla's divergence from the Clan that is the embodied difference needed to effect the diachronic change that we call evolution. Her difference is the source of her originality, her creativity, her potential yet she is constructed as physically ugly, dangerously disobedient and a threat to the ways of the Clan. She is persecuted, abused and isolated and, at the end of the story, abandoned and left alone to fend for herself. Her story is emblematic of our inability to value difference and the potential it offers for creativity and change. It suggests also that our fear of change is often projected on to the different Other.

The fictional co-existence of the Clan and the Others makes me wonder about the possible co-existence, today, of us and our future Others. The new science of the brain and DNA, together with advances in paleoneurology, are reshaping our understanding of human evolution<sup>3</sup>.

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<sup>3</sup> Now, by examining the DNA of lice, it has been possible to tell when body lice evolved from head lice, and to match this with changes in climate in such a way as to suggest that body lice evolved when human ancestors lost their body hair and began wearing clothes. Until this point, we had no way of knowing when in the process of human evolution this happened.



We tend to see the march of human species through time as a single-file parade, with descendant succeeding ancestor in a neat line. ... [This] neat traditional model in which one species gave way to another like Biblical 'begats' has been replaced by a profusion of branches, representing species that lived at the same time as our direct ancestors but whose lines died out. (Begley, S, 2007. <http://www.msncb.msn.com/id/17542727/site/newsweek>, downloaded 21/06/2007).

The last part of this paper, plays with the idea of human difference, human variability, as the source of continuing evolutionary possibility. Here our extraordinary fictional character is Christopher John Francis Boone, a fifteen year old boy with Asperger's syndrome. What is remarkable about the *The Curious Incident of the Dog in the Night-Time*, by Mark Haddon, is the way it allows us to experience Christopher's different way of being in the world from inside his mind. Asperger's syndrome is a disorder on the high-functioning end of the autism spectrum. Many people with this disorder experience difficulty with social relationships and 'find it hard to understand non-verbal signals, including facial expressions'. (See Figure 1).

Figure 1

Eight years ago, when I first met Siobhan, she showed me this picture



and I knew that it meant 'sad', which is what I felt when I found the dead dog.

Then she showed me this picture



and I knew that it meant 'happy', like when I'm reading about the Apollo space missions, or when I am still awake at three or four in the morning and I can walk up and down the street and pretend that I am the only person in the whole world.

Then she drew some other pictures



but I was unable to say what these meant.

Christopher explains how he got his teacher to draw and label lots of emoticons.

I kept the piece of paper in my pocket and took it out when I didn't understand what someone was saying. But it was very difficult to decide which of the diagrams was most like the face they were making because people's faces move very quickly ... So I tore up the original piece of paper and threw it away ... And now if I don't know what someone is saying I ask them what they mean or I walk away (3).

Christopher goes to a school for children with special needs and his explanation of teasing gives one an insight of how it feels to be different and how much work one has to do to hold on to a sense of self worth.

When Christopher says that he would like to be an astronaut,

Terry who is the older brother of Francis, who is at the school, said I would only ever get a job collecting supermarket trollies or cleaning out dog shit at an animal sanctuary and they wouldn't let spazzers drive rockets that cost billions of pounds ... but I'm not a spazzer, which means spastic, ...and even though I probably won't become an astronaut I am going to go to university and study Mathematics or Physics ... because I like mathematics and physics and I am good at them. But Terry won't go to university. Father says Terry is most likely to end up in prison (33).

Based on the largest ever survey in Britain on autism, it is clear that 'children with autism are particularly vulnerable to being bullied'. (<http://www.nas.org.uk/nas'jsp/polopoly.jsp>).

Christopher has his own way of dealing with what life deals him. He *is* good at mathematics, and solving problems, and when he is upset he calms himself by counting in prime numbers or solving equations in his head.

Mr Jeavons said that I liked maths because it was safe. He said I liked maths because it meant solving problems, and these problems were difficult and interesting, but there was always a straight forward answer at the end. And what he meant was that maths wasn't like life, because in life there are no straightforward answers at the end (78).

For Christopher, there is very little about life that is straightforward. Not only does he have to negotiate his day based on whether or not he sees cars in his lucky or unlucky colours on his way to school, and avoid food in unlucky colours, he doesn't like to be touched and gets confused when there is too much sensory input or too many alternatives. We are given a sense of what this means when he explains why he is incapable of telling a lie.

A lie is when you say something happened which didn't happen. But there is only ever one thing which happened at a particular time and a particular place. And there are an infinite number of things which didn't happen at that time and that place. And if I start to think about something which didn't happen I start to thinking about all the other things which didn't happen.

For example, this morning I had Ready Brek and some hot raspberry milkshake. But if I say I had Shreddies and a cup of tea I start thinking about Coco Pops and lemonade and porridge and Dr Pepper and how I wasn't eating my breakfast in Egypt and there wasn't a rhinoceros in the toom and Father wasn't wearing a diving suit and so on and even writing this makes me feel shaky and scared (24).

Christopher, like many other people with Asperger's syndrome, has a different way of experiencing the world. He is in good company – retrospective analyses of bibliographies suggest that Spinoza, Immanuel Kant, Isaac Newton, Albert Einstein, Wittgenstein, Lewis Carroll, William Butler Yeats, George Orwell, Vincent van Gogh, Andy Warhol, Mozart, and Beethoven all had Asperger's syndrome. In his book, *The Genesis of Artistic Creativity, Asperger's Syndrome and the Arts*, Michael Fitzgerald, a recognised researcher and authority on autism, leaves one with no doubt of the importance of human diversity, together with the suffering it entails, in a world governed by developmental norms, level descriptors and assessment standards.

In *Governing the Soul*, a Foucauldian genealogy of subjectivity, Nikolas Rose (1989), provides extensive evidence for the way in which the psy-sciences have been responsible for the construction of normativity. Psychometric testing, for example, led to the quantification of intelligence, literacy and numeracy and

enabled the construction of norms against which individuals are measured.  
 Experimental psychology, constructed developmental norms.

The norm was a standard based on the average abilities or performances of children of a certain age based on a particular task or a specified activity. It thus not only presented a picture of what was normal for children of such an age but also enabled the normality of any child to be assessed by comparison with this norm (Rose, 1989, 1465-146).

The discourse of development continues to subject children to a gaze that measures and inscribes difference and creates a 'hierarchy of the normal'.

Where does this leave children who are different? According to Fitzgerald, 'Very few geniuses have anything good to say about their experience of school' (2005, 68). William Butler Yeats found school 'pedestrian and demoralising' (68); George Orwell hated Eton, so much so that in 1939 he 'was delighted to hear that it had burnt down' (89). Einstein had a speech difficulty as a child and failed his University entrance examination. As a child, Isaac Newton was a loner and 'was never known scarce to play with boys abroad'. (James, 2003).

The Autistic Self Advocacy network argues for the recognition and acceptance of neurodiversity in a world dominated by 'neurotypicals'. Moving away from a disease-focused view of autism to one of human diversity, members of the self-advocacy network are opposed to cures for autism. They believe that

were it possible to find and remove autism from a person on the spectrum, an entirely different person would result ... Autism affects not only physical but cognitive, sensory and social functioning. As a result, it contributes to all the defining characteristics of individual 'self'.  
 (Ne'eman, <http://www.autisticadvocacy.org>, downloaded 22/05/2007)

The main argument of the neurodiversity approach to autism is that difference is not a disease and that autistics should have the same rights as any other minority group.

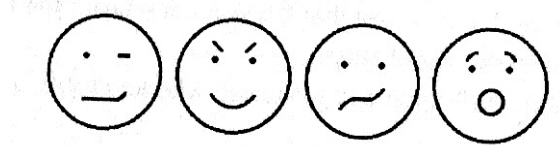
The imprinted brain hypothesis [based in evolutionary genomics] underscores the viewpoint that the autism spectrum represents human cognitive diversity rather than simply disorder or disability. Indeed,

individuals at the highest-functioning end of this spectrum may have driven the development of science, engineering and the arts, through mechanistic brilliance coupled with perseverant obsession. (Crespi, 2006).  
[http:// sci-on.org/2006/03/evolution and autism](http://sci-on.org/2006/03/evolution%20and%20autism))

According to one thirteen year old 'to cure someone of AS would be like taking away their personality, and some really cool abilities too' (Jackson, 2002).

Christopher John Francis Boone on the other hand has fantasies that all the neurotypicals (not his word) in the world catch a virus and die.

And eventually there is no one left in the world except people who don't look at other people's faces and who don't know what these pictures mean



and these people are special people like me. (242-243)

What if Christopher's wish were not as improbable as it seems? There is increasing acceptance that autism is produced by the same kind of genetic variation that according to Dawkins (1976) drives evolution. There is also agreement that there is a substantial increase in pediatric prevalence. This may just be due to 'heightened awareness and changing diagnostic criteria' (Muhle et al, 2004). But what if, in the neurodiversity of autism, we are seeing evolution at work? Here in the Cradle of Humankind, the home of Mrs Ples and Little Foot, it seems appropriate to speculate on the importance of human difference and what it has to offer us now and in a future that will be determined by evolution.

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