

Creativity, the arts and toxic institutions

FELICITY HAYNES

The University of Western Australia

Abstract

In 1997, Singapore mandated creativity in all schools in an effort to increase national entrepreneurial activities in a resource-poor nation. Despite Asian/Western cultural differences, Howard Gardner too, although a structuralist, assumes that creativity has little to do with the artistic process but can be trained in schools. I will argue that this conception of creativity is bound by convention and inimical to the artistic process. Their naturalised conception of creativity is part of a conservative (and I will claim toxic) educational ideology which aims at control rather than participatory engagement in change. This paper will briefly address the relationship between creativity and art, and metaphor/symbol as agents of meaning in particular, in order to explain why it is so difficult to raise the status of the arts when creativity becomes naturalized and how the sedimentation of creativity into a trained brain-process makes the educational environment toxic.

Our form of schooling creates an abundance of social pathologies and contradicts the way children actually learn – sacrificing human potential to an obsession with hierarchy, order, routine, surveillance and the creation of lifelong dependence on “expert” authority.

J. H. Gatto, 2002, p, 17

This paper started with a fascination for the contradictions Howard Gardner becomes involved in when he tries to accommodate creativity and the arts to his structuralist theory of multiple intelligences. The internal contradictions surfaced when he was one of a raft of international educators, including Edward de Bono, David Perkins, and Robert Sternberg, invited to be keynote speakers on critical and creative thinking at the 1997 Seventh International Conference on Thinking held in Singapore. At that conference he proposed that schools were not concerned with Big C Creativity (Gardner, 1994) of the great scientists and artists, but with little c creativity, the ability to solve problems, stretch rules to meet social values. The irony of trying to transfer a concept of creativity which emphasised autonomy into a country whose educational system and culture were based on obedience and conformity to the national good seemed on the face of it self-defeating. But were the differences as great as we imagined?

Mandatory creativity in Singapore

Ten years ago many Asian countries were making an effort to become competitive globally by promoting critical and creative thinking through the Arts, partly as a response to a perception that their education was based on rote-learning and encouraged replication of the culture rather than transformation and growth, and partly as an economic investment in future national productivity (Robinson, 2000).

Although Singaporean school students were achieving top marks internationally in Science and Maths education, policy makers clearly felt the need to encourage independent thinkers, artists, innovators and entrepreneurs especially amongst their elite students. In 1987 the report *Towards Excellence in Schools* was

designed to answer the question of whether Singapore's best students could be provided with an education that would enable them to provide the leadership to meet the challenges of an emerging service and knowledge-based economy. It urged greater autonomy in selected schools to set fees, hire and fire teachers and plan curriculum enrichment in order to spark "creativity and innovation" (Tan et al, p.9). But only the best schools could apply for this independence from the system, and centralization allowed the Ministry of Education to proceed with an agenda to ensure mass customisation and compliance in education.

In his opening address at the 1997 conference, the then Minister for Education C.T. Goh stated that at the end of the basic 12 years of education, Singapore "students should be resilient and resolute, have an entrepreneurial and creative spirit and be able to think independently and creatively. We need to ensure that our young can think for themselves, so that the next generation can fund their own solutions to whatever new problems they face. Singapore's vision... is encapsulated in four words: Thinking Schools, Learning Nation" (Ministry of Education, 1997, p.1). Notice the absence of reference to creativity in the arts. This was a technological and science-based innovation rather than artistic creativity.

In the following year this pragmatic conception was enshrined in the Singapore Ministry of Education's policy statement which made Problem-Based Learning (PBL) a compulsory interdisciplinary unit. Teachers expressed some pleasure in engaging student's interests (Tiong & Aun, 2001, p.75) but there were several factors working against its successful implementation, such as the imposition of having to finish teaching a prescribed syllabus within a specified timeframe, lack of training in creating an interdisciplinary curriculum, lack of support from the whole school and most importantly the fact that this was a philosophical change as well as a pedagogical one for which teachers trained to be compliant were not prepared (Tiong & Aun, 2001, p.79). The sample Tiong and Aun give of a Meet the Problem (MTP) unit on Heat includes specific instructional objectives, the general problem of heat conduction in an Inner Mongolian school, and a set of anticipated problem statements. The compulsory Major Project Work in Singaporean primary schools includes such tasks as finding out whether there is a correlation between the size of feet and one's nose and makes independent thinking little more than finding out a standard answer independently of teacher support. While students enjoyed the project work, teachers claimed that it wasted the valuable time the students need to spend learning for the examinations (Kadiresan, 2003). The move to autonomy was more closely related to self-regulation than autonomy of thought and creative thinking was translated into letting students do research independently of the teacher rather than original or creative. Creativity had become independent problem-solving, usually related to innovation¹ operating at the socially conventional level, rather than artistic creativity which transcends the conventions.

Self-regulatory processes emphasize the construction of learning experiences that require active involvement and participation, greater independence and self-direction from the learners. By providing opportunities for acquiring self-management skills, self-direction and self-initiation, individuals can learn to make their goals personally relevant, and self-manage accomplishments that afford much opportunity for developing choices, effort persistence, and decision-making ability... thereby providing a stable platform to meet the many contemporary challenges. (Chiong, 2007, p 436)

The contemporary challenges Singapore was facing were largely economic, trying to place itself in a global market. Creativity was aligned with entrepreneurship, the taking of risks to benefit social progress in an competitive economy.

Creativity in Singapore was also a move designed to give the nation a distinctive identity rather than to help creative individuals achieve fame. Preceding the Singaporean policy by three years, the following excerpts from the Australian Creative Nation policy show the link between nation and creativity via culture.

Culture, then, concerns identity – the identity of nation, communities and individuals ... Culture, therefore, also concerns self-expression and creativity ... We recognise that the ownership of a

heritage and identity, and the means of self-expression and creativity, are essential human needs and essential to the health of society... Culture creates wealth... the level of our creativity substantially determines our ability to adapt to new economic imperatives (cited in Weate, 1994:5, 7)

In Singapore, cultural identity was far more important than the individual, requiring identification with Singapore rather than with the many ethnic cultures living there. The post-1997 reforms loosened control on schools, but not on individual students.

Ng in 2001 tried to explain the difficulty of introducing a Western conception of creativity into Singaporean schools by saying it was largely a difference in culture. "The Asian education system is considerably more instrumental, regimental, pressurising, competitive and performance oriented compared to its counterpart in the West" (Ng, 2001, p. 98). Asian people, he claimed (2004, p.206), have a closed mind set which stresses security, conformity and tradition rather than creativity, autonomy and self-direction. Much of this, he claimed, was due to the Confucian tradition of education which led to conservative-autocratic teachers who do little to encourage the individual autonomy of students. Misbehaving or noncompliant students are punished to inculcate a sense of morality in them. Instead of asking students to identify their personal goals, they prescribe what to do in a certain situation.

In Asia, education is the acquisition of correct knowledge, not the discovery and generation of new knowledge; the written word is superior to oral discourse; the teacher is the repository of knowledge to be treated with not only respect but reverence, as much as a father to a son. Success is defined for Asians in terms of collective goals, with a social group being the main driving force (Ng, 2001, p.114) while for Westerners the major components of success are free will and competition. Singapore in particular controls not only the behaviour but the thinking of its citizens by a systematic Skinnerian regime of rewards and punishment creating what Ng calls a type of groupthink which disapproves of the different and adventurous.

Amabile (1996, p.100) in America uses her research in social psychology research to demonstrate that the educational methods by which Singapore keeps order (surveillance, evaluation, competition, over-control, pressure)² are creativity killers.

Faced with the new creative and entrepreneurial attempt to make Singapore a growing force in the global economy, Ng cites approvingly Lee's six steps towards making Asian students creative³. Though this agenda reflects the rhetoric of Goh in the 1997 conference in emphasising individual autonomy, Ng does not believe it will work and offers ten guidelines (Ng, 2001, pp. 208-212)⁴, believing that to follow the American model alone "would be a prescription for anarchy".

I believe that the true creator is an independently-minded thinker, who is best able to maintain an optimal balance between self-reliance and group identification and to benefit from the favourable contributions of the social group and society while rejecting their unfavorable imperatives and tendencies... To put it succinctly, the true creator – in whom creative thinking is at its best – is someone who can accept society without denying himself. (Ng, 2001, p. 202).

Personal and social conceptions of creativity

I will return to this requirement of balance between the individual and social conventions later, but the detail of Ng's guidelines indicate significant differences from an American adaptation, even by social psychologists like Amabile and Csikszentmihalyi. So far we have identified two apparently incompatible paradigms of creativity, the Western one of authentic personal engagement, and the social-conformist one promoted in Asian societies. But is the major point of contestation Asian values over Western ones, social values over individual freedom, or something else again? Amanda Weate showed how similar moves towards a utilitarian educational system were occurring at the same time in Australia. She examined similar

changes in the NSW syllabus for the Arts in the mid-90s and says that even with a call to the authority of the field of visual arts made by Ryle, Kennick, Best and the Frames in the 1994 NSW syllabus, creativity as success and achievement in the arts was diminished:

For Nietzsche, in *Thus Spoke Zarathustra*, creativity is the highest value to be sought. The powerful discourses of economic rationalism and the market have overturned and replaced this rhetoric with a functionalist and utilitarian one....This economic shift is most evident in the rhetoric of the 1994 Creative Nation policy (where) the field of creativity is penetrated by the discourses of economics and nationalism. (Weate, 1997, p. 95)

As Weate notes about Australian education, creativity, like other economic indicators, became a commodity to be measured along with debt, unemployment, earnings and growth. As Danto (1981, pp 136 – 164) predicted, if aesthetic values disappear in an anarchistic emphasis on self-expression for its own sake, any creative artwork will be valued more for its commercial value rather than its artistic merit.

Resistance to the political rhetoric of creativity

Why was it so important to try to make creativity central to education in a culture which would resist it? Because in its democratic individualistic sense, it fit the notion of a free economy, and participatory democracy to which Singapore aspired. Amanda Weate (1997) shows how it has been a desirable and valued commodity in the political exchanges of the curriculum, but “when it depreciates in value and so imposes uncertain illusory values, ...creativity is resisted or demands reconstruction”. Creativity, she claimed “has been at one moment, in one syllabus, celebrated, and in another syllabus avoided and denied.” Of course when it does not fit the political reality of a fairly prescriptive and dominating government it will become modified in its implementation. Creativity in Singaporean schools was not so much denied as reconstructed to conform to the dominant *zeitgeist* in Singapore. The passive voice is deliberate. There was no person in control mandating conceptual change (indeed the Minister for Education uses the rhetoric of autonomy used in the perceived dominant Western discourse) but in Foucauldian terms, it became transformed by its immersion in an episteme which resisted a personal conception of creativity. Formed as part of an economic transformation, it solidified into socially accepted educational practices which made it real, what Searle calls a social fact, as a part of a strategy or technology of control. Perhaps this decline into conventional literalness is inevitable. Perhaps it is the fate of all language to move from its creative metaphoric status to dead metaphors and into literal language where it becomes true, and we comply with such changes under institutional pressure to conform. We are witnessing a change in episteme where creativity loses its attachment to artistic expression and becomes measured by the successful marketing of products. This paper then becomes a resistant reading of an inevitable global epistemic shift away from art to pragmatic and fairly ordinary rule-governed creativity, a move which I consider to be damaging to education⁵. But being made aware of this shift should not lead to passive fatalism. Because teachers are deemed to be independent professionals, they too have the power to resist and seek to engage students’ minds, to listen to their creative differences.

Was part of this pragmatic revision of creativity an attempt of Singapore to make its culture more American? There was a detectable ambivalence in the acceptance of the American dream. The progressive model could not be imposed on schools when the practices in schools were so antagonistic to it. For instance tests used to focus on academic performance still were designed to measure academic conformity and learnt facts (Tan 2001). Experienced teachers had built up habitual approaches to instruction and these habits were hard to break. Chan and Chan (1999) and Kadesiran (2003) showed that most teachers viewed the time spent allowing children to think for themselves as time-wasting and negative. Even in creative writing exercises most teachers used quite traditional teaching methods (Tan 2001, p. 93). In Muslim Brunei, Hanapi Mohammad (2006) notes that his early childhood teacher genuinely believed she was fostering creativity in

art when she allowed her students to choose which colour they wanted to fill in the routine colouring-in pages.

But there were some Asian educators who believed that the American emphasis on personal freedom was the best one, the real one, even if they did not fully understand it. Ng's title "Why Asians are less creative than Westerners" presumes that the Western model is the paradigmatic one that Asians fail to match. In his Bible for making Asian teachers more creative, American style, Ng (2004, p. 251) entitles his thirteenth chapter "A Delicate Little Plant in Search of Freedom". In that chapter he contrasts self-determination theory, based on the humanistic tradition of learning, which assumes that motivation to perform comes from within the student, with the behaviourism he observed in Singaporean schools

This humanistic conception of learning is opposed to behaviourism, which assumes that motivation to perform is a function of external forces in the environment. Behaviourist scholars and practitioners adopt a carrot-and-stick approach in the learning process. That is, learners are motivated using an external system of rewards and punishments, as well as a demanding schedule of tests and examinations. (Ng, 2004, p. 251)

Ironically, because behaviorism required one to move beyond freedom and dignity to a scientific experiment, the humanistic tradition, the personal aspect of creativity, takes a naturalistic turn to become the real or true one, where "students are seen as inherently curious, active learners, particularly in environments that offer interesting challenges, meaningful material and opportunities to grow" (Ng, 2004, p. 251)

Runco, (1999a, p. x) in his intro to Ng's book affirms that authentic creativity is a universal characteristic rather than a cultural one. "Ng captures what may be the key idea in cross cultural studies, namely that cultures differ but cannot and should not be directly compared. ...Just to name one example, the West might seem to have an advantage for fulfilling creative potentials in that it allows the individual more liberty. Individualism is encouraged, rewarded, expected. There is probably more autonomy in the West, less pressure for conformity and harmony. On the other hand, human emotions are treated in different ways in the East and West, with the East more typically open to and in control of emotions. This is especially significant when it comes to creativity because emotions have such weight in creative work."

But the behaviourist system of rewards and punishments so common in Singapore seems to have more in common with the American structuralism of the 1970s than appears *prima facie* logical. The Piagetian influence of schemata which the individual child constructed from concrete operations in the world was in its own way as dehumanising as the behaviorist model, despite its emphasis on the mind. Howard Gardner's promotion of multiple intelligences, while it seemed to free the schools from their dependence on analytic IQ tests, was none the less a move towards a biological naturalism which would damage the promotion of autonomy or artistic creativity in schools. The next section of this paper examines the implicit naturalising of Piagetian constructivism in Gardner's conception of creativity to show how it too can lead to a dehumanised school.

Gardner and creativity

Howard Gardner is a hero to many music teachers for widening the notion of intelligences beyond logic and verbal intelligences, and for promoting Nelson Goodman's nominalist Project Zero through the Massachusetts education system. His theories were particularly appealing to Singaporean educators precisely because he eschewed the notion of a creative mind.

For Gardner (1999, 115-134) "creativity" essentially and inevitably is represented by a product which is judged to be creative by communal judgement and is not an intelligence. The only way that we can reliably ascertain whether a person is creative is by observing the ultimate fate of the work(s) he or she has fashioned.

My definition of creativity has revealing parallels with, and differences from, my definition of intelligence. People are creative when they can solve problems, create products, or raise issues in a domain in a way that is initially novel but is eventually accepted in one or more cultural settings. Similarly a work is creative if it stands out at first in terms of its novelty but ultimately comes to be accepted in a domain. The acid test of creativity is simple: in the wake of a putatively creative work, has the domain subsequently been changed? (Gardner, 1995, 116).

Gardner calls this “big C Creativity” because it affects a domain; in other words, because it is a product which attracts a positive response. The small-scale creativity that we might find in a classroom is simply “a novelty that brings delight”. The irony of calling his seminal book on multiple intelligence *Frames of Mind* becomes apparent when he explains his preference for Csikzentmihalyi’s notion that creativity results from an interaction among an individual (potential) creator, a domain of accomplishment that exists in the culture and the field, a set of individuals or institutions that judge the quality of works produced in the culture. “By describing creativity in this way, “ says Gardner, “Csikzentmihalyi removes creativity from the individual’s psyche – an entity emanating from the mind or the brain of the individual”. The cultural environment becomes the “cause” of the creativity rather than a mind resistant to praise and success. Gardner’s agent of change is not an artistic self but a neo-Darwinian natural variation. There is no individual choice involved, no purposive artistry or autonomy, simply a matter of responding proactively to a random social change. Creativity is a communal judgement, the positive reinforcement to a stimulus, and mind is irrelevant to it.

Unique but biologically structured

At first glance, his Multiple Intelligences theory appears to support an individualised instruction rather than the training system apparent in Singaporean schools, the Western/Asian difference noted above, especially when Gardner (1999, p.91) says “I regard MI theory as a ringing endorsement of three key propositions: We are not all the same; we do not all have the same kinds of minds (that is, we are not all distinct points on a single bell curve); and education works most effectively if these differences are taken into account rather than denied or ignored.” However if schools are to recapitulate the development of intelligences into frames of mind that have developed over time, they must keep in mind the desired end-states, and provide the environment which encourages the maturation of that innate potential, and provide scaffolding which guides the individual child in a desirable direction. Gardner (1999, p.144) admits that “there is no direct tie between a scientific theory and a set of educational moves”, that MI Theory could be made consistent or inconsistent with a myriad of practices goals and values and that “diversity is the order of the millennium” (1999,p.217). So it is informative to read what he says about the relative virtues of Asian and Western education.

For him, as for Goh and the Singapore Ministry of Education, creativity is aligned with a Knowledge-Based Economy, conceptually tied if not directly to economic productivity and entrepreneurial financial success, at least to change in the intellectual domain. It has little to do with an Art (not one of his multiple intelligences) which breaks with convention, and more to do with measurable performance. Curiously his admission of musical intelligence has allowed music to gain higher status in academic schools, but his argument for rejecting aesthetics as an intelligence is that it is an action rather than a capacity or trait. He disallows an artistic intelligence (1999, p.108) in a manner which vindicates my project of connecting naturalised creativity to non-literal language.

When someone uses language in an ordinary expository way, as I am doing here, he is not using linguistic intelligence aesthetically. If however, language is used metaphorically, expressively, or in ways that call attention to its formal or sensuous properties, then it is being used artistically. By the same token, spatial intelligence can be exploited aesthetically by a sculptor or painter and nonaesthetically by a geometer or a surgeon. Even musical intelligence can function nonaesthetically; consider the bugle call that summons soldiers to a meal... Whether an

intelligence is deployed for aesthetic purposes represents personal and cultural decisions. (Gardner 1999, pp. 108-9).

What does this tell us about Gardner's view of creativity, or imagination, and its relation to conventional knowledge? It is not remarkable that, in *Intelligence ReFramed*, "imagination" doesn't occur in the index, because Gardner is still locked into a materialist closed-loop genetic wiring of intelligence. Indeed he devalues the active imagination as something of a personality defect.

As long as intelligences are restricted to the processing of "contents in the world," we avoid epistemological problems. So it should be. The concept of "intelligence" should not be expanded to include personality, motivation, will, attention, character, creativity, and other valued human capacities. If we conflate intelligence with creativity... we can no longer distinguish between the expert (the person highly skilled in a domain) and the creator (one who expands a domain in new and unexpected ways). We would also fail to recognise that creative individuals stand out particularly in terms of their restless temperament and personality, whereas experts efficiently process informational content and accept the status quo. (Gardner, 1999, 204-5).

In 1983 he defined an intelligence as "the ability to solve problems or to create products that are valued in one or more cultural settings", and repeats it in 1999 (p. 116, p. 142) – "We use an intelligence when we actively solve a problem or fashion a product valued in society", very closely allied to the Singaporean understanding of problem-based learning that was seen to be useful in the interests of Singapore and tied to conventional values. On these terms, schools are meant to produce intelligent experts by conventional standards rather than imaginative creative people. But of course he is caught between making artists autonomous in their creation of art works, and denying that they are doing so intelligently. "Of course it is perfectly all right to speak of artistic intelligences. I do this, particularly as a shorthand for intelligences that are frequently mobilised for artistic ends." (Gardner, 1999, p.109)

Biological criteria for intelligences

More recently Gardner's tendency to naturalise intelligence has become more overt: "I now conceptualize an intelligence as a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that of value in a culture." (Gardner, 1999, p. 35). The culture becomes the ecological environment that will allow a novel concept to flourish or die.

While his account of intelligences is not based on the psychometric tradition of seeking evidence, he does set out eight separate criteria for intelligence. The first two criteria, the potential of isolation by brain damage, and an evolutionary theory and evolutionary plausibility, are strongly biological, but his structuralism leads him to identify two more from logical analysis (an identifiable core operation or set of core operations, and susceptibility to encoding in a symbol system) because, as a good Piagetian he believes the biogenetic law that ontogeny recapitulates phylogeny. So the intelligences we develop systematically in schools reflect the historical evolution of disciplinary and logical structures: they are a systematically evolutionary or biological fact. The remaining four criteria come from developmental and traditional psychological research – a distinct developmental history, along with a definable set of "expert "end-state" performances; the existence of idiot savants, prodigies and other exceptional people; support from experimental psychological tasks and support from psychometric findings. Gardner acknowledges that he would stress more the relevance of cross-cultural evidence, making the traits of intelligence what Runco saw as universal rather than merely cultural values. There is something essential about them rather than mere contextual happenstance.

Creativity then cannot be an evolutionarily developed intelligence because it cannot be justified within the system which constructed it. It is like chance variation before the selection, the natural selection being

approval within conventional and disciplinary frames of knowledge (labelled forms of knowledge by Hirst). This is very close to Skinner's (1972) attribution of creativity to 'behavioral mutations', unusual acts emitted accidentally, but selected by the environment for reinforcement. It implies that all individuals are equally capable of creative behaviour and that an individual's creative acts, and his or her evaluation of them, must reflect the environment's standards. Not much room for autonomous choice here. For Skinner, the creative act is a cognitive behaviour pattern which first accesses unconscious material and then synthesises it in the context of an immediate stimulus or problem. The operant conditioning occurs as the tension subsides because the individual had found a successful solution. The individual may experience additional operant conditioning if other people praise or reward the creative work. Arieti (1976, p.4) summarises a humanist reaction to Skinner's theory.

People like B.F. Skinner have characterised man as being moulded, conditioned, and programmed by the environment in rigid, almost inescapable ways. Skinner should be appreciated for having shown the extent to which man can be affected in this manner; but.... We must stress man's ability to escape his fate. Creativity is one of the major means by which the human being liberates himself from the fetters, not only of his conditioned responses, but also of his usual choices.

For Gardner the "fetters" are the positive ones of the intelligences one is born with, those "natural traits." He is so enculturated into the psychological model that he wants to divide intelligences into natural domains, excluding creativity. Gardner acknowledges that in the Confucian tradition skills (and performance) in archery, poetry, music, calligraphy and drawing are paramount but in Western society he believes that intelligence is the preferred value over artistic creativity (Gardner, 2000)

In this he is so "Singaporean" in his attitude to the arts prioritising high performance rather than artistic creativity – "As demonstrated vividly by such programs as the Suzuki Music Talent Education Program, shrewd environmental interventions can convert ordinary people into highly proficient performers or experts." (Gardner, 1999, p. 89). In this book, he adds naturalistic intelligence and, surprisingly, spiritual intelligence to his list of multiple intelligence, but declines to add the arts, creativity, existentialist intelligence, because they do not form conservative disciplines, or "frames of mind". This seems very similar to the conservative idea of creativity valued by the Singaporean government, but ironically its adoption in education systems will not give them the technological and economic propulsion of Big C Creativity that they seek⁶.

So what are schools for?

On a Piagetian assumption, the child's intuitive intelligences are innate. The young child "is superbly equipped to learn language and other symbolic systems and ... evolves serviceable theories about the physical world and of the world of other people in the early years of life" (Gardner, 1993, p. 6). Schools are there to provide the frames for the natural curiosity of the child, to provide what Gardner calls scholastic learning. He says (Gardner, 1993, p.3) "Schools are instituted precisely to inculcate those skills and conceptions that, while desirable, are not so readily and naturally learned as the intuitive capacities" (such as learning languages and riding bikes) This requires one to discipline the child, by behaviorist methods or by positively reinforcing the analytic formal rules for disciplines, by setting the standards one is to follow. Little wonder that there is little room or time for Big C Creativity if the point of schooling is to give the rules rather than to encourage their breaking.

He talks of the problems in American education thus

In schools – including "good" schools – all over the world, we have come to accept certain performance as signals of knowledge or understanding. If you answer questions on a multiple-

choice test in a certain way, or carry out a problem set in a specific manner, you will be credited with understanding. No one ever asks the further question “But do you really understand?” because that would violate an unwritten agreement: a certain kind of performance shall be accepted as adequate for this particular instructional context. That gap between what passes for understanding and genuine understanding remains great... What extensive research literature now documents is that even an ordinary degree of understanding is routinely missing in many, perhaps most, students... (Gardner, 1993, p. 6)

When Gardner first visited Asia he was fascinated with the differences between Asian and Western creativity, exemplified in the Chinese attitude to him letting his young son experiment with placing the hotel key in the return slot. He summarises the “Confucian” assumptions of Chinese society thus:

Life should unfold like a performance, with carefully delineated roles.

All art should be beautiful and lead to good behaviour

Control is essential and must emanate from the top.

Education should take place by continual shaping.

Basic skills are fundamental and must precede any efforts to encourage creativity.

By contrast Americans place more importance on understanding than performance, and are more comfortable with informal rather than rehearsed performance. “Just as we in the West today value informality, casualness, and directness, the Chinese seem in comparison to value roles and rituals which are perfectly realized” (p.146)

He claims to seek a balance between the two cultures – the rigorous training of skills to meet required performance standards, combined with understanding which enables successful adaptation of one’s unique schema to whatever novel events the environment provides one with. But if control from the top is essential and education should take place by constant shaping, then there is indeed little room for individual autonomy, and artistic creativity in schools.

I have shown how he naturalises creativity by placing its cause in the environment, but it is ironic that he also seeks to juxtapose control of performance with understanding, the ability to synthesise disparate ideas and disciplines into a new whole. He just cannot GET the Piagetian understanding of how one can bootstrap oneself up to a postconventional level by NOT assimilating conventional standards to one’s own schema but actually accommodating one’s own schema to adjust to new “problems” or discontinuities in the environment. His educational understanding remains stuck between the preconventional and postconventional stages where the only value or reward that one can give artistic creativity is to place a high price on it to reward the artist.

Weate, investigating continuity and change in art education in NSW, problematised the received ideas about creativity as “a cardinal, foundational, natural and inevitable value in art education.” Based on a genealogical investigation of official curriculum policies, syllabus statements, documents, texts, records and archives of the discipline, she identified three distinct ontologies of creativity recurring in the overlapping fields of philosophy of Aesthetics, psychology and art education. She concluded that three distinct components of the creative subject, the creative process and the creative product, are used either as an implicit or explicit recognition of the value of creativity in these fields.

The discourses that are competing between individual integrity and social conformity, between the Western model of authenticity and the Confucian model of skilled compliance are part of a much wider conflicting discourse, that of locking creativity as a fact, naturalising it, into dominant forms of control, whether they are economic ones or intellectual intelligences. They make the mistake that Danto speaks of in *The Transfiguration of the Commonplace*, that creativity is not “real” just as representations of art are not

real. Gardner will not admit creativity as any part of intellectual training which he identifies with schooling, so that schooling takes on the regimented training still dominating Singaporean schools.

But that was partly what Gatto was protesting against in the epigraph to this paper. Is there any point to such resistance? Gatto makes the mistake of assuming that learning comes naturally to children without external control.

We see how curriculum is insistently a political process, delimited by the prevailing ideology of its historical moment, “the conditions of its possibility”. As Foucault (1984, p. 127) says

We must not imagine that the world turns towards us with a legible face which we would have only to decipher; the world is not the accomplice of our knowledge, there is no prediscursive providence which disposes the world in our favour. We must conceive discourse as a violence which we do to things, or in any case as a practice which we impose upon them; and it is in this practice that the events of discourse find the principle of their regularity.

So a curriculum which in resisting the economic model insists on recognising the authentic child will lack any authority because teachers, or even academics are not, despite their ability to present their values in rational form, subject to their own control, permission, momentum and discourse. The authority of a curriculum and a statement such as creativity rests with what teachers are allowed to do and say, and with how dominant discourses reward other discourses. We are in a vicious bind which we cannot escape. Any humanistic notion of the humanities is being slowly poisoned by a toxic dominant discourse of measurement and observable outcomes.

The toxicity consists of letting facts and content become concretised at a Piagetian stage Three, even in the economics-driven model that Weate talks about without enabling the disequilibrium of uncertainty, surprise, joy, push systems into a higher, or different level of postconventional thinking. It is a refusal to allow children to adjust their schemata for themselves.

Danto in speaking of the intimate connection between transformative creativity and art puts it this way:

Art works as a class contrast with real things in just the way in which words do, even if they are “in every other sense” real ... Art differs from reality in much the same way that language does when language is employed descriptively, ie it is about something... This is not at all to say that art is a language, but only that its ontology is of a piece with that of language, and the contrast exists between reality and it which exists between reality and discourse (Danto, 1981, pp 82, 83)

The similarity between art and other representations or interpretations does not solve the question of what is it that makes an interpretation an artistic interpretation? How does art manage to mean or represent artistically? Danto answers this with what he calls the expression. Works of art have distinctive personal style and invite us to see their subject in a new way. “It is as if a work of art were like an externalization of the artist’s consciousness, as if we could see his way of seeing and not merely what he saw.” (Danto, 1981, p. 207). If you say in accepting Danto, that I am equally naturalising aesthetics, I reply no, because Danto is making artistic creativity into an activity rather than a real thing. It is the process of transfiguration of the commonplace that the artist creates an artwork. Danto speaks of this peculiar interplay between the individual and his social context in a way that respects individual unique experiences and at the same time acknowledges the influence of the social and cultural context on that experience meanings, attitudes, emotions, ways of seeing do not spring *ex nihilo* from an isolating experiencing consciousness. Rather meanings more or less come from the world in which the artist lives; ... they must belong to the world the artists find themselves in, and are part of that historical moment (Danto, 1994, p.xiii).

We are now moving into the notion of a Dialogic imagination which hovers on that Secondary Imagination interface between the sublime and Fancy that I spoke of in my paper on the politics of creativity (Haynes, 2004b) or of sublime heterogeneity (Haynes, 2005). It often occurs, as Bakhtin (1981) says, from a

polyphonic interplay of opposed points of view, but as we have seen in the attempts of Ng and Lee and Gardner to construct a creative bisociation of matrices, it can fall dismally flat. What is more, you cannot predict when it will work, because even though it is generated by disciplinary structure, it operates outside them and refuses to meet all of its standards. This dialectic cannot be fixed without killing it or at least confining it to the commonplace. So to remove this cheekiness, this transformation of the commonplace from schools in favour of a product which can be measured, sold, performed skilfully, is to kill the vital connection between society and the individual that allows that transformation.

Creativity as an applied and adaptive activity, not a thing

One of the difficulties of trying to reconcile opposing conceptions of creativity is that the conceptions are being used in different contexts which cannot be arbitrarily merged. Wehner, Csikszentmihalyi and Magyari-Beck (1991, p.270) describe this complexity in terms of the fable of the blind men and the elephant. “We touch different parts of the same beast and derive distorted pictures of the whole from what we know: ‘The elephant is like a snake,’ says the one who only holds its tail; the elephant is like a wall,’ says the one who touches its flank.” However this makes a category mistake of assuming that creativity is like an elephant, there and real, or like the zipperump-a-zoo (Sternberg, 2000b) for which Sternberg has been searching all his life. Even when Sternberg creates his Triarchic theory of Intelligence to include creative intelligence and practical intelligence alongside the more conventional analytical intelligence, he still regards it as a property, a trait which people have or don’t have. In 2003, he (Sternberg, 2003, p. xvii) refined this to say that creativity tends to be fairly but not completely domain-specific, it is rather but not totally distinct from psychometrically measured intelligence and whether or not creative ideas are valued or not depends on which of seven kinds of creative ideas they are⁷. More recently he has shifted his attention to wisdom, the capacity not only know a lot, or have the intellectual skills to apply this knowledge, but to judge how well the knowledge is used. But Sternberg has the advantage of offering a triarchic theory of intelligence which blocks the false dilemma of creativity being either process or product, either personal or social. Notice I am not naturalising it by calling it a behaviour, innate, reinforced or otherwise. It is an activity, purposeful, often chosen, which makes a judgement to synthesise experiences, knowledge and practices.

My move is not to identify another essential reality, wisdom, but to make creativity into an activity of the mind which tries to relate a perception of something beyond convention to convention. It is activated in the interstice of knowledge and awareness. The content is immaterial, but equally the act of creation is immaterial. As in Danto, we have to distinguish between the physicality of the work of art and what it means. At last year’s PESA Conference I situated metaphor as the tool for creating meaning, at the interface between the sublime and inexpressible Primary Imagination and Fancy where concepts become solidified into facts and theories, the named conventions of representations of thought. Causal laws belong in the realm of scientific theory, explanations of creativity such as those Gardner offers both at big C and little c level of creativity, similarly are locked within accepted forms of thought or frames of mind must be a complex feedback one which allows independent judgement rather than causal laws and rote training. Puccio and Gonzales Flow Creativity is an applied act. At its core it is about understanding the basic nature of a unique and human quality so that we can effectively foster it among all people

Implications for education

What makes an educational institution toxic? Just those characteristics which Amabile (1996, p.100) listed as toxic to creativity: surveillance, evaluation, competition, over-control, pressure. You can guess my allegiance to Illich in this respect, especially when he predicts that beyond certain thresholds of development, any institution would become an obstacle to the objectives they are meant to serve. In *Medical Nemesis* he convincingly argued that medical institutions had become overwhelmingly pathogenic and actively sickening

in its turning people into consumers or objects, making them less responsible for their own health. My argument is that schools have become like that where the means to making students more autonomous have become ends in themselves subject to disabling controls which prevent students from thinking for themselves, from exercising their own judgement, from acting with their own integrity.

It is ironic that 'toxic institutions' is less oxymoronic than 'convivial institutions'. Gatto (2002) follows Illich in presuming that one can offer tools for conviviality only outside systemic education, by home-schooling or family-schooling or radically alternative schooling. So perhaps I ought to start by saying that I am more optimistic – that you could make a school where artistic creativity could flourish at the level of Secondary Imagination, by supporting the arts, by actively listening to what children say and watching what they do, by allowing them to make mistakes and learn from their own mistakes, by presenting students with multiple possibilities and having them discuss the merits of unconventional solutions.

At the same time, I am more conservative than either Gatto or Illich, addressing an insidious scientism in schools which is more lethal than exhausting. The toxicity of which I speak is not only apparent in the lack of conviviality in schools, but in a dated epistemology and ontology which threatens change by naturalising our knowledge systems and our minds, literally de-humanising education. As long as it places its emphasis on evidence drawn from observable behaviour it will focus on products measured by fixed standards, rather than the process of artistic engagement and creativity.

Our previous research has shown that compared with their American counterparts, Chinese students' artwork is perceived as less creative by both Chinese and American judges. In a new study, we find that Chinese students' creativity is increased when given direct instructions to be creative or guidance on how to be creative. Three different factors are posited to be responsible for the discrepancy in rated creativity between Chinese and American students, namely, social values, school pedagogic practices, and educational testing systems. This article argues that high-stakes standardized tests could impair the development of students' creativity. Although there is a general tendency for school educators in both China and the United States to overemphasize analytical skills at the expense of the development of creative abilities, in general, the tendency for the Chinese to do so is stronger than it is for the American. (Nui & Sternberg, 2003, p. 103).

Their recommendation is to allow for a free and dynamic flow between the conventional standards of knowledge and skills, and the students' experience and ability to synthesise complex awareness to present changes in a form which is communicable in conventional language and values. It is about the relations between things rather than a trait or a thing itself and therefore very context-dependent, requiring conscious judgement for application.

I think the opposite of a toxic institution is one where students and teachers work collaboratively and with enthusiasm to generate shared ideas out of difference and are prepared to justify their creative decisions. It is one where students must engage with the work in a meaningful fashion (Haynes, 2004b), one where they can occasionally enjoy school enough to not feel the pressure only to conform to norms and standards and one where there is room for emergent autotelic selves evolving in a complex interrelational dynamic (Csikszentmihalyi, 1997, p.116-130; Heng, 2001, p. 109). It is one where facts are not mistaken for truth, and the process of reification of values is seen as in need of constant revitalisation and critical reflection.

Notes

- 1 "Innovation is not invention. Invention is the creation of a new idea and its reduction to practice... innovation is about economically valuable novelty" (Dodgson, 2006).
- 2 **Surveillance:** Hovering over kids, making them feel that they're constantly being watched while they're working.

Evaluation: Making kids worry about how others judge what they are doing. Kids should be concerned primarily with how satisfied they—and not others—are with their accomplishments.

Competition: Putting kids in a win/lose situation, where only one person can come out on top. A child should be allowed to progress at his own rate.

Over-control: Telling kids exactly how to do things. This leaves children feeling that any exploration is a waste of time.

Pressure: Establishing grandiose expectations for a child's performance. Training regimes can easily backfire and end up instilling an aversion for the subject being taught.

3 Prof Lee Yuan Tseh is a respected Chinese scholar from Taiwan who obtained his degree from the University of California in Berkeley and won the 1986 Nobel Prize. Lee gave a public lecture in Singapore in 2001 entitled *Educating Creative Scientists for the 21st Century*. He notes that the family is influential in shaping attitudes: In Israel parents typically ask their children, "What questions did you raise today?" In contrast Asian parents typically ask their children, "What score did you get?" In Lee's six steps to making Asian students creative, he pays lipservice to Western autonomy, but is not interested in artistic creativity. Asian students should:

1. learn to think independently and question accepted answers. Learning from teachers should be secondary to learning on their own.
2. learn to ask "good" questions that probe the frontiers of science and stump the teachers. They could find the answers to easy questions on their own.
3. learn to view problems from all the different angles so that they could weigh the pros and cons of every issue.
4. study a topic thoroughly, as this is the best way to learn about a subject (ie don't be performance oriented; be mastery-oriented instead)
5. attempt to tackle those unsolvable problems (questions or puzzles with no correct answers) so that they would earn to "think deep" that is they should not be *kiasi* when they solve problems.

Finally, the educator in the East should respect his students as "complete persons with the right to express their opinions" (Ng, 2001, p. 191).

4 I list them here because I do not think it is a compromise that is intelligible to American educators.

1. Maintain a flexible discipline in every situation. Extreme flexibility leads to chaos, "while discipline in the extreme leads to a shrivelling up".
2. Seek peace and harmony in the social group, but don't be afraid to take a moral stance if you have to. Moral integrity is a hallmark of the true creator.
3. Give face to the other, but don't seek to gain face for yourself by the acquisition of material goods. This materialistic desire to gain face for oneself can lead to a *chindogu* society. It can also lead to envy and jealousy, not to mention a lack of creativity.
4. Infuse yourself with passion; help the poor; be an everyday creator.
5. Be modest, yet believe in yourself. In this way the creative Asian remains teachable yet also gets to function at the edge of his competence (which is a defining trademark of the creator).
6. Use reason to prune tradition. The creative Asian should use his power of reasoning to decide which tradition should be discarded and which should be retained.
7. Don't be a pushover! The typical Asian is expected to respect his elders, to conform to his ingroup, to obey traditional authorities to blindly follow rules and regulations to unthinkingly preserve customs and norms regulations. The creative Asian should assert himself against these internal and external forces that prevent him from exercising his autonomy or belittle his dignity as a person.
8. Adopt an experimental attitude by taking calculated risks in life. Asians have a high uncertainty avoidance as well as a low tolerance of ambiguity... he [sic] should learn to take calculated risks.
9. Maintain a playful attitude to life. You might even win a Nobel Prize. "And if you don't, you're in for a good laugh which is the best medicine in the world (and costs less than what your doctor will charge you!)".
10. Imagine that you are a butterfly dreaming that you are a human being. A move towards Taoism rather than the social propriety at all times that Confucianism demands.

5 Taiwanese architect Yu-Tung Liu (1998) supports the impersonal shift by demonstrating that the computer can be used to enhance creativity by analysing the procedure of rule-formation in design creativity. The rule for rule-formation can be discovered computationally using the classical problem-solving, generate and test, paradigm search model of creativity common to a scientific psychology model of the sixties.

- 6 By contrast, Sternberg revises the concept of Big C Creativity to define those artists, musicians, writers, scientists and inventors who stand out from the rest as those who make different decisions regarding how to express their creativity, in what he calls the propulsion theory of creative contributions (Sternberg, Kaufman & Pretz, 2002). This makes the contemporary context and how far these creative people deviate from conventions crucial in determining their creative worth. Sternberg illustrates the 8 types diagrammatically in *Wisdom, Intelligence and Creativity Synthesised* (2003, pp. 128-9). The main point here is that the most successful are those that accept current paradigms and attempt to extend them or merge disparate current paradigms. The least successful are those that reject current paradigms and attempt to replace them.
- 7 “Ideas that are consistent with ongoing paradigms tend to be welcome. Forward incrementations, which move existing paradigms forward, tend to be valued. Redirections, which move existing paradigms in new directions, or re-initiations, which reject current paradigms and start at different point of departure, tend not to be recognized as creative because they are often too novel for people to appreciate their value. Of course novelty is no guarantee of quality.” (Sternberg, 2003, p.xvii)

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