

"What is creativity and how do we 'teach' it?"

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TITLE: What is creativity and how do we 'teach' it?

Abstract:

This paper addresses the question "What is creativity and how do we 'teach' it?". It proposes that the term 'creativity' has been so overused in non-arts contexts that it has been emptied of meaning for our domain. The paper draws on an extensive review of literature in the field to reframe and reclaim the discourses on creativity for artistic practice and learning. It explores approaches to pedagogy that lead students toward a deeper understanding of creativity, and of their capacity to create in and through the visual arts.

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Introduction:

The literature arising from research into creativity as a phenomenon is already massive and growing exponentially. A google on the terms 'creativity research' returns over 70,000,000 results, with less than 10 per cent concerned with the artist or art-making. An examination of the literature shows a shift in the last decade of the 20th Century in the discourses on creativity. This shift reflects the interests of 'first-world' consumer culture; i.e., the necessity to have a constant stream of 'innovative' products and services to construct and grow new consumer groups (*economics*), and the necessity to increase profit margins by 'creatively' re-conceptualising the management of human labour (*efficiency*). In the first decade of the new millennium, first-world governments facing a burgeoning aging population have added a third theme: late life productivity (*health*).

The fore-grounding of the term 'creativity' into popular use where its meaning is linked to notions of productivity, efficiency, and competition, by the corporate sector's entrepreneurial 'innovation experts' has acted to elide the scholarly treatment of the phenomenon by (predominantly male, American) psychologists, who developed instruments in the scientific tradition, in order to 'test' for, find, define, and publish new knowledge about, creativity. The extent of this work has recently been profiled in two 'handbook' publications: Runco's (1997) *The Creativity Research Handbook*, and Sternberg's (1999) *Handbook of Creativity*. Subsequent reviews of these texts, such as that by Simonton (2000) provided an overview of the new knowledge that psychologists had developed "on four fronts": *the cognitive processes involved in the creative act; the distinctive characteristics of the creative person; the development and manifestation of creativity across the individual lifespan, and the social environments*

most strongly associated with creative activity. The catalyst for this work was American psychologist Guilford's (1950) "call to arms" (Simonton, 2000:151).

Reflecting on the failure of their field to attract research resources, American psychologists Sternberg and Lubart observed "few resources have been invested in its study relative to its importance in the field of psychology, and the world" (Sternberg 1999:15). They listed the following reasons:

(1) The origins of the study of creativity were based in a tradition of mysticism and spirituality, which has seemed indifferent and possibly runs counter to the scientific spirit.

(2) Pragmatic approaches to creativity have given some the impression that the study of creativity is driven by a kind of commercialism that, while it may be successful in its own way, lacks a basis in psychological theory and verification through psychological research.

(3) Early work on creativity was theoretically and methodologically adrift from the mainstream of scientific psychology, resulting in creativity sometimes being seen as peripheral to the central concerns of the field of psychology as a whole.

(4) Problems with the definition of and criteria for creativity caused research difficulties. Paper and-pencil tests of creativity resolved some of these problems but led to criticisms that the phenomenon had been trivialized.

5. Single approaches have tended to view creativity as an extraordinary result of ordinary structures or processes, so that it has not always seemed necessary to have any separate study of creativity. In effect these approaches have subsumed creativity under them, as a special case of what is already being studied.

6. Unidisciplinary approaches to creativity have tended to view a part of the phenomenon (e.g., the cognitive processes of creativity, the personality traits of creative persons) as the whole phenomenon, often resulting in what we believe is a narrow, unsatisfying vision of creativity.

Unpacking the reasons given above for the failure of certain standpoints and approaches to gain authority may provide a useful starting point for redefining the problem on our own terms, in order to reframe creativity and its study in a way that is relevant and useful for our purposes, and, at the same time, may contribute new knowledge to the field.

Redefining the problem:

Using the strategies of philosophical and critical inquiry that are 'authorised' approaches to research in the domain of art practice and pedagogy, we can examine the logics that underpin the reasoning behind Sternberg's and Lubart's articulation of the problems (reproduced in 1-6 above).

Viewed from another disciplinary perspective, such as the visual arts, these problems, from (1) "The origins of the study of creativity were based in a tradition of mysticism and spirituality, which has seemed

indifferent and possibly runs counter to the scientific spirit” through to (5) and (6) the limitations of “single” and “undisciplinary approaches” can be seen collectively as resulting from the discipline’s having to, (or choosing to) keep the scientific faith and its systems of authorisation. Underpinning the scientific spirit is the principle of radical doubt, which requires that all ‘knowledge’ be tested. From its beginnings in ‘The Enlightenment’ era, science has seen its role as that of *de-mystification*. The discipline of psychology uses the scientific system of authorisation, whereby the boundaries of the field of creativity research, and who is included, and who is excluded from it, are set and maintained the use of a literary technology (the journal) and genre (the journey of discovery). This is the means by which its discoveries can be made known to those who were not direct witnesses.

The scientific method, which forms the basis for psychological studies of creativity, is underpinned by an il-logic whereby the existence of the object/idea (creativity) is contingent upon scientific proof - the outcome of hypotheses that are always open to revision or abandonment. This conundrum is further compounded through the introduction of originary narratives recounting the history of the study of creativity from the domain of psychology (Sternberg, 1999; Simonton, 2000). In these narratives, J.P. Guilford is credited with being the founder of the field, subsequent to his American Psychology Association presidential address in the 1950s, whilst at the same time, the origins of the study of creativity in a are located in a different, “in-different” tradition and time, which had its basis in mysticism and spirituality. The Western scientific project set up oppositional world-views (the scientific or the mystical), and privileged its own (human-centred) world-view, discounting other ways of knowing about and in the world.

The post-positivist (post-scientific) methods gaining currency in humanities disciplines – particularly the visual arts - during the late 1970s, [the “boom” time in creativity research (Simonton, 2000:151)] combined strategies from post-structuralism, post-modernism (deconstruction) and feminist re-readings of Freudian and Lacanian psychoanalysis to challenge the notion of scientific ‘truth’ and the status of representations of reality. Assumptions that the scientific method was an answer to the excesses of religious image societies (Gell, 1999) were understood in terms of a displacement of anxiety: vulnerability and mortality, once at the centre of spirituality and mysticism were relocated into a search for an ethical and moral code to replace the void. In his critique of humanism, Carroll, reviewed in Slattery (2004) attributes the Modern secular West’s malaise to the disenchantment of the ‘rationalised world’ of science, which left us without a unifying sacred belief or attachment. Max Weber (1993:6) who investigated the social role of religious or magical behaviour or thinking concluded that it “should not be perceived as apart from the range of everyday purposive conduct, particularly since even the ends of the religious and magical actions are predominantly economic” (e.g., rain-making, fertility etc.). Magic – the sparks that fly from the rubbing together of pieces of wood - is transformed from a direct manipulation of forces into a symbolic activity. Today, the economic rationalists and the free marketeers are the priest-magicians, who work between the unknown and the real world.

More recently, and somewhat ironically, the late 20th Century’s decentring of the human from an anthropic universe is in danger of being overturned, as the early 21st Century’s fears of environmental destruction and unstoppable climate change are now being agonised as a direct outcome of human activity – in

particular, industrial capitalism. This displacement, perceived in liberal capitalist, secular humanist terms, relocates the vulnerability and economic issues at the centre of spirituality and mysticism into the proliferation of concerns around ethics and morality and the environment. As Appleyard reports, the fact that “science has been more successful and effective than any other form of human knowledge ... has made it the primary determinate of our way of life and of our attitudes to the world and other people. This is dangerous because science itself has no morality or faith and can tell us nothing about the meaning, purpose, and significance of our lives.” (Appleyard, 1992:xii)

Thus the problems can be redefined in terms of the discipline’s closure to a multi-disciplinary approach brought about by the exclusion of methodologies and knowledges other than the scientific. Strategies such as philosophic and critical inquiry, feminist social critique, and the insights into the role of the unconscious offered by psychoanalysis are able to facilitate our understanding of mysticism and spirituality as *desire* (recognised as lack) and *wonder* (the partner to or outcome of this recognition of desire as lack). Developmental psychology alone is not adequate to the task of understanding the complexity of its categories “personality” and “pathology”, which frequently arise as problematic in their uni-disciplinary creativity research.

Redrawing (dissolving) the boundaries:

A multi-disciplinary approach to the study of creativity is called for that is able to dismantle boundaries and facilitate the contribution of artist-educators to the field so that the field itself can demonstrate some of the characteristics of its object of study. How do we ‘authorise’ ourselves in the field? We already have our creations valued by culture and society because they arise from this source and speak to this source. So perhaps this is where we excel. But how do we construct what we do as evidence for the purposes of the field? As we are already charged with the responsibility for the provision of learning experiences to develop creative practice, and assessing and reporting on creative achievements in the visual arts, it would seem that our focus now needs to be upon breaking down perceptions of ‘disinterest’. We could begin this task of redrawing boundaries by identifying *which* theories and *what* research appear relevant to our perceptions about, and understandings we seek in regard to, the phenomenon of creativity. A finding by Runco (2003) that we could keep in mind as we set out is that “(c)reative individuals change the domains in which they work. They often do this by influencing the way others think.”

Work undertaken by art educators that straddles the boundaries of the two disciplines is useful in helping us to redraw boundaries by facilitating understanding both ways. Importantly, it enables what we do as artists and educators to be discussed in language of psychology. Arthur Efland’s recent publication, *Art and Cognition*, integrated the *symbol processing* and *socio-cultural* theories of cognition, (2002:80-81) and articulated the implications of creativity and other research on the mind for future directions in art

education in a manner that seeks to overcome the mind/body split underpinning earlier scientific methods. Authorising what we do through the selective application of theories from the biological and physical sciences - also helps to make the boundaries more permeable – for example, Efland (2002:171) aligns his integrative approach with David Bohm's notion of 'the implicate order' "a world beyond dualisms that divide the body from the mind, thinking from feeling, or individuals from their social world"

Likewise, the work on cognition, creativity and the arts undertaken by Csikszentmihalyi, (1990) shows how a systems theoretical perspective enables the dynamic interaction between three subsystems: *individual, domain and field*. Simonton (2000:154) to be explained in terms of how this relates to a disciplinary environment:

creativity requires the dynamic interaction between three subsystems, only one of which entails the individual creator. The second subsystem is the domain, which consists of the set of rules, the repertoire of techniques, and any other abstract attributes that define a particular mode of creativity (e.g., the paradigm that guides normal science, according to Kuhn, 1970). The third subsystem is the field, which consists of those persons who work within the same domain, and thus have their creativity governed by the same domain-specific guidelines

Systems theory is a useful lens on the subject of creativity and psychoanalysis. In systems thinking, the whole is more than the sum of the parts. The properties of the whole are not the properties of the parts, rather "they arise from the interactions and relationships between the parts." (Capra, 1996:29) Consequently, systems thinking is contextual and inter-relational and perceives the living world as an interconnected network of relationships. Dynamic systems are characteristically non-linear in organization; they are self-organising and self-regulating; they are capable of learning; they are *autopoietic* (Maturana and Varela, 1992:43-7), that is, they are self-making, or self creating. This is achieved through the generation and mediation of feedback loops through dynamic circular networks. Living systems are neurologically closed (or circular) and thermodynamically open (ibid). They co-evolve with their physical, biological and social environment.

Through such multi-disciplinary approaches, which dismantle dualistic oppositions using a combination of non-scientific and scientific theories, new arguments can be constructed, such as that by Efland (2003:171) that the hunches of the scientist, like the imagination of the artist, are also intuitive. The work still to be done, however, is that of dismantling the negative values ascribed to ways of knowing that cannot be rationalized by science.

Reframing Creativity: a matter of values

In reframing creativity from the perspective of what we do as artists and educators, we need to focus on why we think it is important. Mason (2003) encourages us to step back from what psychology has to say about the creative process, to examine *beliefs and attitudes about creative activity* in order understand

why “the ways in which the modern view of creativity as a value emerged” Mason (2003:8) draws attention to the differences between the terms ‘create’, ‘invent’ and ‘discover’ as a means to identify what it is that distinguishes creativity. He explains:

The fact that the word to 'create' involved some kind of innovation initially set it apart from to 'invent' (inveniri; erfinden) and 'to discover' (découvrir; entdecken), for both of these verbs originally meant finding or uncovering something which already existed. This sense still applies in the case of to 'discover'. A geographical discovery is an 'uncovering' of something which had existed previously but had not been known about or seen; a scientific discovery, likewise, usually relates to a problem which is already recognized, (hence the phenomenon of simultaneous discoveries, like Darwin and Wallace on natural selection). The verb 'to invent', on the other hand, has lost most of its associations with finding, and is close in meaning to 'to innovate'. But whereas both 'invent' and 'innovate' share the sense of novelty with 'create', they lack the element of significance. An action or artefact has significance if it has a meaning which is widely shared, or profoundly experienced, if it is recognized as being cogent or important or convincing (i.e. not superficial or transient or trivial), occupying a distinct place within a broad field of understanding or experience. It is always possible that an invention or innovation may achieve significance. But something is no less 'inventive' if it lacks this dimension; whereas an act or work is not 'creative' if it is not significant.

While the meanings of the terms have changed over time, according to Mason (2003:8) the key factor leading to the rise of creativity as a *value* was the role scientific discoveries and technological inventions played in altering perceptions of human capacity and potential – in other words, “creativity became a value as a result of the fundamental changes which occurred in the relationship between human beings and the natural world.” An important outcome of his inquiry into how creativity became a value, which drew extensively on Greek mythology, as well as literary works that were chronicles of their times (such as Mary Shelley's *Frankenstein*) is the attention that it draws to the fact that while the term has had overwhelmingly positive associations, we should not assume that more of it is necessarily better for the world, or that it is necessarily benign.

In formal schooling, it seems that there has never been a time when it has not been necessary to advocate for the arts in learning – particularly in times of conservative politics – and advocacy has included emphasising the economic as well as the cognitive and the interpersonal. However events of global import the close of the 20st Century (the war in Bosnia) and at the dawn of the new millennium (9/11 in the US); and locally, the Bali bombings, and the race riots in Cronulla, have intensified the need for what has become known as “values education.” Our focus has never been more intent upon, nor our understanding more deep, of *the power of symbolic expression*. One of the most monstrously sublime and iconic of images of our time is the awful beauty of the symbolic act of destruction of the twin towers captured by amateurs on personal video cameras and cell phones. This troubling aestheticisation, in part through its constant, almost hysteric repetition, was again, more recently, experienced in the form of images of Abu Grahib endlessly circulated world-wide. This paradox demands that we start to comprehend how these riveting, repetitious tele-visual images of destruction and abuse can be

experienced concurrently as aesthetic and erotic (power, sadism), and then ultimately, as banal. This moral dilemma reminds us that definitions of creativity are provisional and contingent, and cannot sit outside of, or ignore, lived experience.

In reframing creativity, we should be concerned that, in a time when we are facing such extraordinary ethical and moral dilemmas, the issue of creativity in social terms has been hijacked by a corporate sector for whom the term 'creativity' is a sexier substitute for 'productivity', or, as Australian management researcher, Hiliary Glow (2006) concludes, 'efficiency.' We should be concerned that despite the apparent economic success of creativity, and despite the wide acknowledgement of the necessity for 'visual education' in a globalising culture dominated by visual forms of representation and communication, art education struggles for a place in the so-called 'crowded curriculum' of schools, and undergraduate and post graduate education programs. A focus on critical visual literacy and values is a necessary intervention from the early years. As Holbrook (1994) points out, commercial culture has intuitively found ways of exploiting the natural needs of children. Without being able to offer any genuine sustenance for the existential needs of the child, commercial culture uses unconscious material to arouse deep anxieties and to seize the child's fascinated interest while promoting regression. Holbrook considers children's comics and pop lyrics, among other cultural media, and through them shows that commercial culture tends to enlist a preoccupation with disturbances for which there are no solutions. The anxiety aroused undermines a child's achievements. So, if we value our profession and the contribution we know it makes to culture and society, then clearly we need to act to reframe the discourse on creativity and reclaim the locus of art practice and learning in regard to it. Thus the central question we should be asking is, "How does creativity manage to *enrich* culture?"

Reclaiming creativity for symbolic expression and social productivity

The widespread popular use of the word creativity puts it in jeopardy of being applied superficially and with limited understanding or respect for the powerful significance of the creativity force. ... the creativity force is a human resource that applies to systems and transformations and on to the transition of all of society to a better world (Bleedorn, 2003:36).

It is imperative that we (artist/educators/researchers) reclaim and redirect the discourses on creativity toward critical and imaginative thinking and a general increase in 'scholastic productivity'. It is crucial that we reconnect creativity to well-being, resilience and general intelligence - that is, to *social* productivity. We need to direct creative endeavour toward the identification and achievement of long term, rather than short term, goals; and to link it with welfare and health rather than the economic competitiveness of society. This will involve focussing our critique on current usages of the concepts of creativity and productivity, and the way in which these concepts have been collapsed within an economic model of the common good; and on defining the relationship of these concepts to social productivity. This endeavour need not take the form of demonising economic well being, but rather, of critical endeavour aimed at teasing out *how* the current political climate and its wedge politics and short term goals *appeal to the*

baser instincts of human nature, instead of bringing into being a compassionate and more humane society.

Linking creativity to health, rather than to pathology (a tendency in creativity research that focuses on personality) is crucial to building resourcefulness and resilience (Craft, 2002) . For our Aboriginal peoples, many of whom experiencing poverty, despair, substance abuse, familial violence and suicide having suffered genocide and denial of culture that are the strategies of colonization, art has capacity to be restorative: to provide real narratives for the culture based in values that are intrinsic to human health: belonging, and a real identity based in a sense of worth within cultural terms (that is, have respect and a recognition of worth from the culture, and the capacity to find a place in culture and to contribute to the culture and feel relevant).

Strategies for teaching and assessing creativity in its fullest sense:

To define creativity in the way it was understood when it became a value, that is, as innovation which is significant, means that an action or an artefact is not 'creative' if it is of little or no consequence to people other than the agent. It may be imaginative, playful, or dazzling, and valid in those terms; but that value is of a different order from something which, attaining significance, justifies the use of the word creative. A familiar example of this distinction can be seen in the paintings done by children. Since it is rare for such art to hold any interest for anyone beyond the immediate family it is wrong to call it 'creative'. As one expert on childhood, Iona Opie, has observed, 'children aren't really creative... [They] invent nothing. They adapt things... They are Tories of the whole and anarchists of the particular'." Because the children are engaged in art and doing something new (not an exercise in copying), the result of their efforts is called 'creative'. It should rather be called 'individual'. (Mason, 2003:231)

Recognising the spectrum of creativity, and the values attached to it – and these are always cultural, social, economic and political - from “high ‘C’” (Gardner, 1999), which is reflected in Mason’s assertion, above, to “little ‘c’” where Craft (2002) sees creativity in acts that demonstrate resilience and resourcefulness in early phase contexts by children coping with their uncertain world, is essential to our ability to teach for it and assess and evaluate achievement in our students, relative to opportunity.

The work shaping visual arts education in recent years (for example, in Queensland’s 1-10 The Arts KLA syllabus; The New Basics Framework, and its Rich Tasks) has emphasised the repertoires of practice required to support symbolic expression that is student centred and outward looking. And we need to consider what this means across the sectors from P-12. This syllabus framework seeks a pedagogy whereby creativity can be reframed by and in terms of the learner, through the appraisal of artworks – not in terms of the individual artist, but in terms of the significance of the creation in society – and through art-making that is aimed at achieving long term goals through a ‘futures’ perspective, which emphasises social values and citizenship. The New Basics Rich Tasks attempt to engage students in authentic experiences that better prepare them for ‘the real world’, and the National Framework for Values Education supports a

process-based approach to values. What does art education pedagogy informed by this framework look like?

Exemplary programs, such as that pioneered by Terry O'Connell whilst a police officer in Wagga Wagga in the early '90s, have provided 'real life' contexts for learning. He developed the idea of bringing offenders face to face with their victims, an approach that has gone on to have a huge influence on criminal justice around the world, and he has now adapted these ideas of restoring of justice to the classroom – a concept that is embraced by the children:

They're really interested in this idea of trying to make things better when they go wrong. And the idea of the interactive where you ask them what do you think's happened? is really about getting them to reflect. The distinction in terms of the reflection, where I come from is using a very Socratic approach. Socrates is about asking questions, rather than telling someone ... We can tell someone we're disappointed or we can ask about how their behaviour may have impacted on others. So it's a question of how they come to that realisation, and the key to all of this is to ask questions that are hopeful...(O'Connell, 2006)

“All forms of restorative practice work on building relationships, and in schools the aim is to shift teachers, students and parents from ideas of blame and punishment towards empathy and responsibility. Key in this process is the asking of restorative questions.” (Kanowski, in O'Connell, 2006). It is not difficult to think of examples in art and art-making that have reparative intent, by revealing injustices, and engaging individuals and communities in symbolic expression of past experiences and aspirations for a better future.

The outcomes of recent research in early years context (predominantly by women, and made available to a wide audience through the Australian Broadcasting Commission's Radio National and associated website – www.abc.net.au/rn and more recently, via podcasting, provide direction for a new pedagogy based on *restorative practice*, that teaches for creativity, and acknowledges the achievements of learners.

How to teach and gauge empathy and respect - key aspects of emotional literacy, is demonstrated in the work of Canadian Mary Gordon, founder of the Parenting and Family Literacy Centres in Toronto which are now being replicated around the world, including in Australia. Gordon argues (2001) that of the many literacies of childhood, emotional literacy is the foundational literacy, and without that children are going to be in trouble. Her *Roots of Empathy* classroom program focuses on reducing children's aggression by exposing them to situations (such as bringing a mother and new baby into the classroom for the day). The objective is for the children to recognise emotions and respond to needs. They are supported in their attempts to find and using words to express what they are responding to as they attend to the baby's needs throughout the day. Looking after the baby becomes the context for learning, whilst preparing children for parenting in the next generation.

To the insights provided by the pedagogy adopted in the *Roots of Empathy* project, we can add those offered in Porter's (2001) research in early years contexts, which found that praise (which denotes judgement by another and is experienced as random) does not empower the child to learn how to assess and 'judge' their own behaviour and achievements:

Praise implies a power imbalance, in that the judgement rests with the other. This also fails to develop critical thinking, the capacity to think through and arrive at one's own opinions about what is taking place around one. This leads to the development of a 'mindless' public who waits to be told how to think. This is dangerous for the individual, and the social body.

A framework for teaching and learning based on restorative practice, whereby creativity becomes the vehicle of symbolic expression and achievement acknowledged, rather than judged, and that encourages the learner to question, and to have mutual respect can inform the way we engage our students in responding to their own and others' artworks, even at an early age.

We can lead students to solve conflict by being able to critically inquire into their own behaviour and to be able to assess it rather than be judgmental about it. By looking at what has occurred, ie the past in relation to the present, they can position themselves without splitting and blaming, to then find a way to move into a future different from the one they may have moved into, given the old model of splitting and blaming and judgment.

Basing our pedagogy in philosophic and critical inquiry as strategies for teaching creativity brings multiple lenses from multiple domains that will help us to see and to recognise what it means to be creative at a deeper and more sustainable level. Philosophic inquiry is a strategy developed by the Philosophy in Education movement, which applies the principle of the question itself being discovery of subject. Students form a "community of inquiry" into the question of creativity. "What is creativity? Why do we need it? What does it do? Was it demonstrated in this or that instance or act? What was its affect on society? Why is this so? Buranda State School (Brisbane) Principal, Lynne Hinton (2005) explains:

I guess that through philosophy we do touch on ethics and values, there's no question about that. We've had discussions about what does it mean to be fair, is it always good to be fair, and certainly we do cover ethics and values through philosophy. But that's not all philosophy is. What you saw today is more talking about metaphysics and so there's metaphysics and epistemology and logic and all of the other aspects. So values, I suppose, is a very small part, or a part, not necessarily small, but a part of the philosophy education that we're undertaking here. And I suppose you're reinforcing values simply by the process of philosophy, by respecting one another, by listening to one another, by considering each other's points of view.

... Socially, well the respect that's engendered in that process, that community of inquiry, you would have observed that, that seems to spill over into every area of the school. The children deal with one another respectfully. A visiting academic said to me once, 'Your children don't fight, they negotiate', which is a rather nice way of saying it. There is not a bullying problem at the school. As the children's academic performance and social

outcomes became apparent to the world outside Buranda, enrolments started to increase, so that from the 48 that we had when I first came, we now have 175 and a waiting list. We're capped at 175, we have no more space. So we run this waiting list and have to manage our enrolments to ensure that we don't end up with more children than we can handle.

There are many such initiatives that can open our eyes to new understandings about the transformatory potential of the creative force that begins at a local level in our own art classrooms. As ideas-people, we can introduce equally creative and non-judgmental ways of engaging students in the big questions, and in the assessment of their contributions and achievement in developmental terms, that focus on empowerment through the agency of symbolic expression.

Conclusion: - high and small 'c' creativity:

The problem for artists in a secular society is how do we respond to the enormity of the issues of our time? Shining the spotlight (making visible the invisible, and naming the un-named) is the most useful cliché that we have about what artists do. From quantum physics, chaos and systems theories, we learn about the butterfly effect – a small gesture locally may produce extraordinary consequences at a distance – and understand that we are part of a living system (Nalder, 2002) and interdependent on each other and on the environment. This emergent paradigm, or “planetary” perspective, arises out of our realisation of our vulnerability in a world which is now acknowledged as a complex web of life (Capra, 1997); an interdependent network of ecosystems within which we are merely one of the players, but an influential player. And this influence is not always beneficial for others, or for the environment. We have come to realise that our very success at exploiting what we formerly and arrogantly believed ‘god had given us to do with as we wished’ is now the basis of many of our current crises as a species and as a planet. Through subversive questioning– we need to define our values imaginatively – artist-educators, with their students, can probe values, engage in imaginative explorations and create possible futures.

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