On the Nature of the Creative Mind¹

Creativity and Learning in educating the creative mind

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Abstract

In educating the creative mind, it becomes imperative to reach a deeper understanding of the creative mind and of creativity itself. A vast number of creativity research studies conducted in recent years indicates that creativity is closely related to art, artistic practice and artistic modes of relating to and communicating with the world around us. Furthermore, creativity researchers in the field generally agree to base their definition of creativity on value and novelty, and they thus agree to presuppose a more or less tacit range of utilitarian and anthropocentric categories. In educating the creative mind, it is therefore also imperative to investigate the teleological basis for our understanding of the creative mind – what is the purpose of creativity and how does creativity relate to and influence our lives, practice, learning and the world around us? This paper examines the nature of the arts and the creative process and proposes a definition of creativity that places the arts and arts-based education as one of the many ways to promote creative thinking and innovation. Finally, the paper argues as one of its main conclusions that any change towards more creative preschools and early elementary schools presupposes a change of the culture of the schools and that this change in its turn presupposes a deep and unfolded understanding of the very culture that we want to enrich.

Keywords: creativity, art, education, learning, play, cognition, social, non-compliance

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The Ground of Being

We must commend the neuroscientific research communities for the visionary scope of expressing their subject in their use of the notion of the Creative Mind. Given the 100+ years of research in creativity and education, this is in this paper’s view both a startling and courageous position. The aim of this notion is neither ‘Minds that Qualify as being Creative’ nor ‘Minds that need to be educated in order to become Creative Minds’ – the expression communicates the belief that the human mind is a Creative Mind. Creativity is thus not just a potential or competence that we can cultivate through an intentional educational practice – Creativity is the ground of being, a stream through which the organism breathes and flourishes and thus a prerequisite for learning. Every human being – baby, child, grown-up and old - is a creative human being and that we, therefore, must consider learning and education as an operationalization of this naturally given, basically organic creative state of existence.

The challenge before us when discussing creativity and learning concerning education is: is there an inherent conflict between creativity as a state of consciousness, and education as a socializing process performed in schools? If so, how can we resolve this conflict? Despite intensive research in the field during the past century, only a few groundbreaking discoveries have made it into our schools as new practices, and even fewer have succeeded in radically changing the culture of our learning environments. Compared to the traditionally 'hard sciences' it is a remarkable fact that there has been so little substantial impact in our schools, despite the progress made within the social sciences, specifically in the fields of creativity, teaching, and learning. The very fact that we, some sixty years after the onset of the second wave of creativity research by J.P. Guilford in 1950, still apply mainly cognitive, reactive, compliant and utilitarian strategies to our preschools and early elementary schools, points to the need for a renewed look at our very understanding of education and of the creative mind in our culture. We must search for new ways to approach education, and this paper sees arts-based education as a principal way of meeting the growing demands for original thought processes and innovative problem-solving.

The Enlightenment Ideal of Reason and Rationality

Behind this theme, behind the vision of merging creativity with learning lies the more or less tacit strategy of our schools' socializing, formative practice: the intentional practice of ‘Creating the Educated Mind.’ Moreover, we must ask ourselves: is there a dichotomy between our vision of the creative mind and the educated mind and if so, does this
dichotomy prevent arts-based education from promoting original thought processes and innovative problem-solving? The very fact that we are still debating this issue suggests not only that we have not yet succeeded in our mission, but also that there may still be substantial difficulties ahead before we see large scale innovation and original thought processes done by educated, creative minds throughout our culture. Indeed, as the Chair of the U.S. Alliance for Childhood, Joan Almon, puts it, things are changing for the worse:

Increasingly, preschool and kindergarten children find themselves in school settings which feature scripted teaching, computerized learning, and standardized assessment. While allegedly, these approaches are providing quality education, they trivialize and undermine children's natural capacities for important and focused life lessons through creative play, and this leaves many children profoundly alienated from their school experiences (Almon 2003: 18).

In 2009, professor of psychology Edward Zigler called for a ‘much-needed antidote to today's common approach to child development – an approach that is antithetical to the knowledge bases of both the fields of human development and early childhood education’ (Zigler 2009: ix). The fact that Zigler is directing our attention to the human knowledge bases of our culture is important and relevant. Numerous researchers, philosophers, and practitioners worldwide have for decades focused on the interrelation of mind, creativity, and education; and many volumes show support for creativity, art, and arts-based educational strategies. Nonetheless, we seem to insist on replacing the whole-child approach with the cognitive child approach (Hirsch-Pasek 2009: 7). When we feed our children with DVD's, electronics, flash cards, toys-that-teach, and we denigrate sports and play activities in our preschools, we forget the inspired insights of the previous century. However, we stand warned. Let us, for a brief moment, go back five decades in time:

1946 – Viktor Emil Frankl

In 1946 the Austrian psychiatrist Viktor Frankl published ‘Man’s Search for Meaning’ about his experiences as a prisoner at the Auschwitz Concentration Camp during World War II. The book has as its central theme the search for meaning amid extreme suffering. The horror of the experience removed all hope of survival, and the book is a strong statement against the prospective strategies and investment theories of western society today. Frankl writes:
Do not aim at success—the more you aim at it and make it a target, the more you are going to miss it. For success, like happiness, cannot be pursued; it must ensue, and it only does so as the unintended side-effect of one's personal dedication to a cause greater than oneself or as the by-product of one's surrender to a person other than oneself. Happiness must happen, and the same holds for success: you have to let it happen by not caring about it. I want you to listen to what your conscience commands you to do and go on to carry it out to the best of your knowledge. Then you will live to see that in the long run - in the long run, I say - success will follow you precisely because you had forgotten to think of it (Frankl, 1946: 16-17).

1949 – Joy Paul Guilford
In 1949 the American psychologist J. P. Guilford gave a presidential address to the American Psychological Association and initiated the beginning of the modern psychometric perspective on creativity. In this address, Guilford proposed that the field of psychology take up the study of creativity and asked

[w]hy is there so little apparent correlation between education and creative productiveness? Why do we not produce a more significant number of creative geniuses than we do, under supposedly enlightened, modern educational practices? These are serious questions for thought and investigation. The more immediate and explorable problem is a double one: (1) How can we discover creative promise in our children and our youth? Also, (2) How can we promote the development of creative personalities? (Guilford 1950, 444-445).

The presidential address was published in 1950 and made Guilford the first modern researcher to outline possible mental abilities underlying creativity (Weisberg 2006: 448).

1949 – Albert Einstein
In his book from 1949 entitled ‘Philosopher-Scientist,’ Albert Einstein recalls the period of his life as a student of mathematics and physics at the Polytechnic Institute of Zurich. It is a story of an institution heavily fragmented in overwhelming, and numerous subject specialties and Einstein ended up working most of the time in the physical laboratory, fascinated by the direct contact with experience. He writes:
The hitch in this was, of course, the fact that one had to cram all this stuff into one's mind for the examinations, whether one liked it or not. This coercion had such a deterring effect [upon me] that, after I had passed the final examination, I found the consideration of any scientific problems distasteful to me for an entire year. It is, in fact, nothing short of a miracle that the modern methods of instruction have not yet entirely strangled the holy curiosity of inquiry; for this delicate little plant, aside from stimulation, stands mainly in need of freedom; without this, it goes to wreck and ruin without fail. It is a very grave mistake to think that the enjoyment of seeing and searching can be promoted through coercion and a sense of duty. To the contrary, I believe that it would be possible to rob even a healthy beast of prey of its voraciousness, if it were possible, with the aid of a whip, to force the beast to devour continuously, even when not hungry, especially if the food, handed out under such coercion, were to be selected accordingly (Einstein, 1949: 19).

1962 – Jerome Bruner

In 1962 the American psychologist Jerome Bruner wrote: ‘We have been negligent in coming to a sense of the quickening change of life in our time and its implications for the educational process. We have not shared with our teachers the benefits of discovery, new insight, new artistic triumph’ (Bruner 1962: 125). It is Bruner's position that we must encourage the creativity of our children and teachers as a preparation for the future, given that the future is more difficult than ever before to define.

1963 – Edgar Wind

In 1963 the German-born British art historian, Edgar Wind, outlined the challenges for an arts-based curriculum:

The forces of the imagination from which the artist draws his strength, have a disruptive and capricious power which he must manage with economy. If he indulges his imagination too freely, it may run wild and destroy him and his work by excess […] Yet if he plagues his genius with the wrong kind of drill, and uses too many contrivances and refinements, the imagination may shrivel; it can atrophy (Wind 1963: 2).
Art is in his view a powerful, yet a fragile source of creative energy and the practice of introducing art in education is thus a delicate matter in several ways. Even more so, art can be a very uncomfortable experience in its use of the creative energies of turmoil and confusion. Moreover, as Edgar Wind puts it: ‘[i]f it is the highest wish of a man to live undisturbed, he might be well advised to remove art from his household all together’ (Wind 1963:1). Art is in his view, not a local anesthetic that will ease the pain of the traditional curriculum.

1966 – Alan Watts
During the 1960s the British philosopher Alan Watts gave a series of lectures and seminars on the nature of reality, consciousness and the meaning of life, concerning Eastern and Western religion and philosophy. He focused especially on the problems in our culture that arise due to Man’s ignorance, ambition, need of control and will to win without loosing, and he advocated a more transcendental and spontaneous life in which

You have to cultivate an attitude to Life where you are not trying to get anything out of it. You pick up a pebble on the beach and look at it. It’s beautiful. Do not try to get a sermon out of it; sermons in stone and God in everything be damned! Just enjoy it, do not feel you have to salve your conscience by saying that this is for the advancement of your aesthetic understanding. Enjoy the pebble. If you do that you will become healthy. You will be able to become a loving, helpful human being. But if you can’t do that, if you can only do things because somehow you’re going to get something out of it you’re a vulture (Watts, 1966).

1969 – Arne J. Nixon
In 1969 in an article entitled ‘A Child has a Right to the Expressive Arts’ professor of education Arne J. Nixon stated the following: ‘To create conditions which assist children in releasing that which lies dormant and waiting within them so they may paint their impressions on life’s canvas in rich, bright, bold, brave colors is the challenge for all who guide children’ (Nixon 1969: 301).

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As I am now discussing the work done half a century ago by Frankl, Guilford, Einstein, Bruner, Wind, Watts and Nixon, some of them were, in turn, discussing the work of John Dewey completed some sixty years prior, at the turn of the century.
How far have we come?

In 1897 John Dewey published five articles of faith entitled ‘My Pedagogic Creed.’ In his first article entitled ‘What Education Is’ he defines the educational process: ‘All education begins unconsciously almost at birth, and is continually shaping the individual’s powers, saturating his consciousness, forming his habits, training his ideas, and arousing his feelings and emotions’ (Dewey 1897: 3). Today, more than 110 years after Dewey's prophetic work and several decades after Frankl, Guilford, Einstein, Bruner, Watts, Wind, and Nixon - how far have we come? Vice president of the Association of California School Administrators, Alice Petrossian, says in an interview on February 8, 2010: ‘[g]ive me the time to focus on kids, instead of filling out bureaucratic paperwork’ (Petrossian 2010: 1). As the Obama administration is preparing a sweeping overhaul of the ‘No Child Left Behind Act' of 2001 and as everyone seems to agree on the elimination of the law's 2014 proficiency deadline, it seems that we have yet to go beyond damage control. For more than a century the voices of evidence-based positions proposing alternate routes to educating the creative mind have been many, varied, qualified, inspiring and insisting. Still, we continue to focus on academic skills, assessment and accountability in, as the anthropologist Susan Greenwood puts it ‘a conventional academic sphere, which still seems to be heavily ideologically influenced by the Enlightenment ideal of reason and rationality’ (Greenwood 2009:2).

Can the introduction of the emergent states of the creative mind in artistic practice in our schools produce the long-awaited turnaround in our educational practices? Can we hope for a turnaround that will enable us to not only avoid suppressing the creative minds of future generations but also to support, sustain and revitalize our culture? If John Dewey is right – if education begins unconsciously at birth and if Nixon is right in declaring art as a constitutional right of every child – how can we apply this in the continuum from the first educational experience of being born to the so-called commencement speech some 25 years later? Moreover, who is commencing what – are our children’s lives up until graduation a kind of test-run assessment that on graduation day is jettisoned into full blossom in the real world of sensible, rational, educated grown-ups? It seems that we have not in any substantial way changed our educational systems beyond John Dewey’s critique of 1897:

I believe that much of present education fails because [...] it conceives the school as a place where certain information is to be given, where certain lessons are to be learned, or where certain habits are to be formed. The value of these is conceived as
lying largely in the remote future; the child must do these things for the sake of something else he is to do; they are mere preparations. As a result, they do not become a part of the life experience of the child and so are not truly educative (Dewey 1897: 8).

A closer look at both the nature of the creative mind and the educational journey from birth to commencement is needed.

**The Creative Dimensions of Art and Education**

Let us imagine a school that makes students, teachers, and leaders feel that life is worth living. Let us imagine a charismatic, vibrant and powerful educational system that can excite, thrill and surprise. How would this system look? Maybe if we could turn education into an art form of sorts instead of turning art into education? Then we could try celebrating education as a genuinely creative practice: not arts-based education, but an *education-based art* - the art of math, the art of language, the art of sports, music, painting, economics! Schools would become art galleries and each equation, thesis or home run would be works of expressive power. There are problems, however. As argued above we must consider the fact that art and education may be a meeting of opposites in the sense that they approach the question of directness at or intentionality in very different ways. It seems that art and education are poles apart and the creative mind is acting within and through both of them. What is going on here? Can we – through an analysis of the creative potential in art and education – narrow down the common denominators of creativity? Let us look at our prevailing assumptions on education, art, and creativity, let us confront these assumptions and try to list some common creative values as a basis for an understanding of the nature of the creative mind.

**Education**

The prevailing assumption on education is – in the words of the American linguist Noam Chomsky – ‘[a] system of acquiring skills through teaching, that is the intentionally controlled and conducted praxis of training, repetition and reactive dispositions to act. We learn through the teaching of procedures of induction and association, and the child learns through accretion incrementally as she is subjected to these sequential processes of generalization’ (Chomsky 1973: 11'34). As a result of this, the schools see their primary activity as being the fully intentional practice of teaching and sustaining a system that supports this. Cognitive
approaches, didactic components, ‘hot-housing’ techniques and ‘learning content’ characterize our preschools, and early elementary schools (Sigel 1985: 122).

This mindset governs most schools in our culture today. The main problems with this approach to education are strong adaptive, reactive, compliant, prospective and controlling traits. In any situation where human beings are being forced to adapt and react instead of acting and making a difference, the result is an externally motivated, noncreative mode of being. Furthermore, the intense focus on assessment in the form of standardized testing is thought to help boost learning outcomes; but the increasing problems with the performance of both the low-performing students and the high-performing students seem to indicate, that there are problems. ‘It is less easy to accept that our fundamental problem is theoretical and that improved and more effective work will not solve our problem if we have a confusion at the root of the system; running faster with improved style will not help us if we are going in the wrong direction’ (Egan, 2008: 89).

Finally, the prospective mode of being that is applied in education today is barely a ‘mode of being’ as it does not in any substantial way accept this now. The real point of interest in mainstream education today is the final exams and the possible future results that the training in school will enable the student to achieve. Contrary to this view, authentic education has value in itself and students and teachers involved in authentic education learn for learning’s own sake. The process is the point of interest, and the result is not in focus – but never the less a very creative spinoff of that process. Authentic education is a way of living as John Dewey points out in his second Article of Faith:

I believe that the school is primarily a social institution. Education being a social process, the school is simply that form of community life in which all those agencies are concentrated that will be most effective in bringing the child to share in the inherited resources of the race, and to use his own powers for social ends. Education, therefore, is a process of living and not a preparation for future living (Dewey 1897: 7).

If education first and foremost is a social process, then it must be a sentient process, and we enter the realm of passion: ‘What needs to be recognized and acknowledged is, first, that acts of learning and teaching are acts of desire and passion’ (Barreca & Morse 1997: 43).
Art
We can classify the prevailing assumptions about art into two dominant, very different positions. The first position is a rational position. Art is seen here as an intentional act of creating a work of art that is novel and valuable. Artists are professionals, and they are themselves a product of hard, relentless striving – 2 percent talent and 98 percent hard work. At the far right of this position, we find the cognitive neuroscientist Merlin Donald, who postulates that

Art should be regarded as a specific kind of cognitive engineering. As a first principle, art is an activity intended to influence the minds of an audience. It involves the deliberate construction of representations that effect how people (including the artist) view the world. This reflects a very deep human tendency for the reciprocal control of attention, which carries with it a propensity to deliberately engineer the experiences of others (Donald, 2006:4).

The second position is a transcendental position. Art is something extraordinary; it grounds itself on unintentional, spontaneous and free-spirited ‘inspired' insights that in magical ways structure themselves and communicate through the artist as a medium. There may be problems and setbacks in the creative process, but hard work is not something that seems to make the artist want to consider giving up. On the contrary, the apparent impossibility of the whole project only increases the stakes – and beyond all reason, the game seems to be worth the candle all the more. The artist grows with her art in a formative process, and she is speaking like a child, playing for play's sake and celebrating the beautiful non-sense of life, which, by the way, seems to make much sense to many people eventually. Art is a highly unintentional and transcending act, and the artist is an oddball case, a genius or an especially gifted individual and art is thus a special happening reserved for the few. Most of us are not ‘gifted,’ and we need to accept this as it is a mode of being, that is innate – you cannot teach it or learn it if you are not talented with this gift.

Both positions relate closely to a specific, dispositional view on artistic practice and we accept that not every one of us can paint, dance, write poems or improvise jazz on a high artistic level. However, the question that remains is whether some of the traits or modes of creation in artistic practice are common for all human beings and if so, how is education addressing these traits?
Creativity

The prevailing assumption on creativity is that it is a result of a rational, strategic decision to be creative, as suggested by the American professor of psychology, Robert J. Sternberg: ‘Creative people are creative, in large part, because they have decided to be creative’ (Sternberg, 2000: 89). Creative people produce something that is novel and valuable, and ‘Buying low and selling high is the sine qua non of successful creative performance. Buying low means actively pursuing ideas that are unknown or out of favor but that have growth potential. Selling high involves moving on to new projects when an idea or product becomes valued and yields a significant return’ (Sternberg, 1999: 42-43). The American professor of psychology Howard Gardner supports this position: ‘The notion that creativity involves problem-solving and that it connotates both initial novelty and ultimate acceptance would be accepted by nearly every psychologically oriented researcher of creativity’ (Gardner, 1993: 35)

These assumptions about the nature of creativity presuppose a more or less tacit range of utilitarian and anthropocentric categories. When Robert J. Sternberg postulates that creativity is a result of a rational decision to be creative, he is one of many researchers who look at creativity from a predominantly rational perspective. They hold the position that creativity is grounded in 'Novelty,' and 'Value' and that any creative practice must necessarily result in new and useful additions to our culture that can be assessed as such. The position of this paper on creativity is different. It is a transcendental and sentient position. The two positions are facing each other as formulated by the professor of philosophy, Leonardo Boff:

The base experience is feeling. Not the cogito, ergo sum (I think, therefore I am), but the sentio, ergo sum (I feel, therefore I am); not Logos, but Pathos, the capacity to be affected and to affect – affectivity. Eros does not only imply a feeling but a co-feeling, a consent, not only being conscious of the passion of the world but having compassion. Everything that is tied to Eros must see with fantasy, with creativity, bursting forth toward the surprising, the wonderful (Boff 1984: 11-12).

However, I do not think it is a question of either or. We think, and we sense, but the question we need to pose is firstly how our thinking and perception relate to each other and, secondly, what role creativity plays in our thinking and perception. Above all, creativity can be sensed. I do not need to cogitate that I am creative, I can feel it. In this transcendental position,
creativity is based on a feeling of something, rather than on knowledge of something. I see creativity as a state of consciousness that is not tied to a single subject or group of subjects, one or more cultural fields, practices or instruments. Creativity works through everything, and it is in this paper’s view a fallacy to postulate that creativity is defined in novelty and value. The fact that creativity can be characterized by the emergent properties of Novelty and Value does not imply that the phenomenon of creativity is grounded in novelty and value. Creativity is in the core of its being a vibration in unstable systems, and we should build on this core concerning the transformation of schools and teaching approaches.

The nature of the creative mind

Our school institutions have the potential to transform and infuse vitality into our culture. However, we need to reevaluate our systems theory to see if there is an opportunity to supplement the rational position with a transcendent, sentient position. Robert J. Sternberg proposes that creativity is a rational decision to be creative. The German philosopher Friedrich Nietzsche proposes that every single idea is a result of creative expression. Theories of art, educational strategies, and creativity concepts are not only interesting ideas about the world, but they are also quite the contrary ideas that in a physical sense shape and interfere with the world from which we grow and in precisely that sense they are the workings of the creative mind. More than anything else it seems, that creativity has to do with ‘change’ as a phenomenon in all its dimensions:

Traits of the creative mind
Experiencing This Now
Accepting of This Now
Ineffable
Ignorant
Irrational
Apperceptive
Non-compliant
Vocational
Surrendering
Playing
Compassionate
Recognizing
Discovering

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Educational Art

Educational Art is grounded in the non-compliant, irrational practice of self-forgetting in celebrating the miracle of creation at this moment in time that has the highest possible relevance for this very moment. Educational Art is apperceptive, compassionate and grows and discovers in creation without compromise as the practice is symbolized by sudden, irrational and improvised journeys on foot, blindfolded through uncharted territories. As Educational Art in its nature feels the freedom to create in any context under any constraint it may choose to practice the most severe constraints – it may choose to accept the compliant, rational procedures of planning and preparing for the future by doing something in this moment in time which does not necessarily have any relevance this very moment.

As I am an artist myself deeply engaged in the challenge of education my position may come as no surprise to you. In my view, it is not sufficient to ‘add’ art and artistic practice to the curriculum of education. The root and ground of education itself must change and regain its vitality as a multiplicity of sudden risking, losing and winning practices. We can achieve this by reintroducing education as playful discovery expressed in the practice of playing for play's sake and learning for learning's sake. Within this deeply rewarding practice lies the nature of the creative mind, as creativity is the very joy of creating orderly worlds of expressive overflow in the vortex of chaos, turmoil, and confusion. Also, here we see that teaching and even learning plays a less central role than previously assumed and that we need to reintroduce in our artistic practice and the preschools and early elementary schools the notion of growth as a distinctly unique, unintentional and vital force in our lives. Mastering math, language, and sports in their most abundant forms are not solely a product of teaching; and this paper argues, that they cannot even be said to be a sole product of learning in the sense of an intentionally controlled and conducted practice. The nature of the creative mind presupposes the balancing of the intentional, the semi-intentional and the unintentional practices of teaching, learning, artistic creation, and growth.
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