Reflections on art making and evolutionary psychology

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Contents

Introduction	3
Defining 'Art'	4
Creating and conferring aesthetic significance	8
'Art' and natural selection	11
Concluding comments	12

Introduction

This paper is written in the hope of exciting debate in a contested arena and also to provide additional support for arts education advocates. I outline a case for suggesting that everyone, that is all human beings, has an innate capacity and desire for making and appreciating 'art' and that denial of this capacity can lead not only to an unfulfilled life but an unhealthy one. However, because of art's conceptual slipperiness and the fact that it is so dependent upon culture, such an assertion needs qualifying by taking a very broad definition of what is meant by 'art' and the making and appreciating of it.

One lunchtime recently, I happened to look out of the window at a tree moving in the wind; I could tell immediately that it was a dead tree, not because of its lack of leaves, but by its rigidity and its staccato movements. I wondered where such perceptual knowledge came from and I mused that this was something innate, an evolved perceptual ability dating from the times when humans needed to rely on their knowledge of the health of flora and fauna to ensure survival. I might well be wrong in my musings, but there is a growing body of knowledge or at least an emerging interest in evolutionary psychology and the part that our inherited nature plays in contemporary life. In relatively recent times, such talk would be dismissed as not only nonsense but politically dangerous. I well remember as a young art teacher when a colleague ventured to say that 'you can't teach art, you're either born with it or not', replying, rather too emphatically, that that kind of talk ends with people going to the gas chambers. In the intervening thirty years or so, I know a bit more about art and a lot more about people. My view remains that one is not born an artist or with a talent for drawing — that is down to education — but we come into the world with a potential for a highly developed aesthetic sense and we have an urge to adapt our environment and accounterments accordingly. What is intriguing is why we consider some things to be beautiful or interesting and other things not; why we even have a concept of art or an aesthetic sense.

Although my ideas have changed since I first started teaching in the light of wider reading and life experience, as recently as ten years ago I would recount anecdotes from anthropologists who claimed that certain groups of people were unable to recognize 2-D images. The point being that such things as understanding pictures were culturally determined. Nigel Barley¹ for example, in *The Innocent Anthropologist*, describes how after showing a member of the Dowayo tribe of Cameroon a picture of a lion and asking him to give the local dialect name for *lion*, the reply was 'I do not know this man'; the notion that Dowayo people couldn't read images was compounded by the fact that many had identical pictures on their I-D cards. However, I no longer believe it to be the case that the reading of images is culturally determined. Paul Bloom in

 $^{^{1}}$ Barley, N. (1986). The innocent anthropologist : notes from a mud hut. London: British Museum Publications.

a more recent book² notes that 'babies have some tacit grasp of the correspondence between a realistic picture and the object it depicts' (p. 131), and draws attention to an early study by Julian Hochberg and Virginia Brooks³ who raised their own child until he was 19 months old with no access to photographs and other images of familiar objects. He could easily name them upon subsequently being shown images.

Claims about 'fundamentality' and 'human nature' have often been met with extreme resilience, particularly by Western academics in the post-war years. In the light of new discoveries about human genetic make-up and access to advanced statistical analysis such resistance is being thwarted. We, and I mean here, human beings, are not 'blank slates' at birth — this notion has been eloquently demolished in the popular imagination by Steven Pinker, the Johnstone Professor of Psychology at Harvard University, in his book of the same name⁴. Pinker draws upon a number of established authorities, including those on the 'liberal left' to underscore his argument that the principal factors in determining human behavior are inherited rather than cultural; in doing so, he goes gleefully against the grain of the received wisdom prevalent in academic circles. Amongst those cited is Noam Chomsky, who believes that humans are innately endowed with a drive for 'creative free expression'⁵. The association of creativity and expression with art making is discussed below.

Defining 'Art'

This sub-heading is daunting; I will not presume to tackle this in any detail here, but will refer to those who have produced interesting criteria for defining art in the context of evolutionary psychology. Dictionaries give at least fourteen different senses of the word 'art' as it relates to skill; only one of these is in the sense of what is often referred to as 'Fine Art'. The general association of art with creativity and the imagination in many societies did not become prevalent until the late nineteenth century. It appears to be the case that in industrialized societies a commonly accepted notion of what art is includes the concepts of not just skill, but also expression and organisation, in addition to creativity and imagination. In advocating a biological rather than a socially constructed conception of art, Dennis Dutton lists seven 'universal signatures' that can be associated with art⁶. The first of these is skill (in the use of media to represent the world or express ideas and feelings) which is universally admired; this

² Bloom, P. (2010). How Pleasure Works. The new science of why we like what we like. London: Norton.

³ Hochberg, J. and Brooks, V. (1962). Pictorial recognition as an unlearned ability: A study of one child's performance. *American Journal of Psychology* 75, 624–628.

⁴ Pinker, S. (2003). The Blank Slate: the modern denial of human nature. London: Penguin.

⁵ Chomsky, N. (1975) Reflections on Language. New York: Pantheon. Cited in Pinker, S. (2002) The Blank Slate—The Modern Denial of Human Nature. London: Penguin.

⁶ Dutton, D. (2001) Aesthetic Universals. In B. Gaunt and D.M. Lopez (Eds.), *The Routledge Companion to Aesthetics*. New York: Routledge. See also Dutton, D. (2003) Aesthetics and Evolutionary

can be related to other 'universal signatures' such as the existence of stylistic rules for art forms and that art forms provide a special focus for attention, appreciation and interpretation. Other universal signatures, to continue with Dutton's term, include the faculty of imagination and the human capacity for pleasure for its own sake. As a simple list, Dutton's universal signatures with regard to art are as follows:

- Technical artistic skill
- Non-utilitarian pleasure
- Stylistic rules
- Appreciation and interpretation
- Imitation
- Special focus
- Imagination

There are of course several areas where people might disagree with a list such as this; any claim to 'universality' is bound to be met with skepticism, especially by other experts; an obvious one to people working in the art world is the notion of 'imitation' having anything to do with art as it is currently conceived. Others might well argue that while acknowledging that 'imitationalism' as a theory of art is a cultural construct, the studied avoidance of it is a willful, perhaps perverse denial of what has been a feature of human culture for millennia. In *The Art Instinct*, Dutton builds upon the list cited above and identifies characteristic features found cross-culturally in the arts, producing a set of 'cluster criteria' for defining art, these twelve areas are described as follows:

- 1. Direct pleasure. Art is 'a source of immediate experiential pleasure in itself.'
- 2. Skill and virtuosity. The making of art requires and demonstrates 'specialized' skill.
- 3. Style. 'Objects and performances in all art forms are made in recognizable styles, according to rules of form, composition, or expression'.
- 4. Novelty and creativity. These qualities, as well as 'the capacity to surprise,' are integral to art in Dutton's view.

Psychology. In J. Levinson (Ed.) *The Oxford Handbook for Aesthetics*. New York: Oxford University Press.

 $^{^7}$ Dutton, D. (2009). The Art Instinct: Beauty, Pleasure, and Human Evolution. New York: Bloomsbury.

- 5. Criticism. 'Wherever artistic forms are found, they exist alongside some kind of critical judgment and appreciation, simple or, more likely, elaborate.'
- 6. Representation. 'Art objects [...] represent or imitate real and imagined experiences of the world.'
- 7. Special focus. All art is 'bracketed off from ordinary life, made a separate and dramatic focus of experience'
- 8. Expressive individuality. A work of art possesses this trait.
- 9. Emotional saturation. Art is 'shot through with emotion'.
- 10. Intellectual challenge. Art 'tends to be designed to utilize the combined variety of human perceptual and intellectual capacities to the full extent.'
- 11. Art traditions and institutions. Works of art 'gain their identity by the ways they are found in historical traditions, in lines of historical precedents.'
- 12. Imaginative experience. The chief defining characteristic of art may be that its objects 'provide an imaginative experience for both producers and audiences.'

In using these criteria for designating a phenomenon as 'art', Dutton is able to demonstrate art's universality – across cultures and throughout history, giving weight to his argument that the instinct to make art is itself universal. Dutton does not shy away from the more challenging areas of aesthetic theory and tackles 'aesthetic problems' such as forgery and Dada with verve and insight. For example between pages 196 and 201 he applies his cluster criteria to Marcel Duchamp's most provocative work, Fountain and it appears to work as well with this paradigm example of conceptual art as it does with less challenging phenomena. Dutton forges the structure for a convincing argument based on the idea that Humankind's aesthetic and artistic dispositions originated in the Pleistocene period and are 'hard-wired' into human nature. Hard evidence that might support the assertion that aspects of behavior which are associated with art-making might have a biological rather than a purely cultural foundation is hard to find, but it is noteworthy that humans (to the best of my knowledge) have a strong interest in creating narratives and an enjoyment of problem solving; human beings also appreciate and value skillfully made objects.

Dutton asserts that art forms are found everywhere, regardless of culture and that its 'very universality [...] strongly suggests that it is connected with ancient psychological adaptations'. By this he means adaptations from an evolutionary perspective, developments that have become incorporated into the very essence of humanity. He draws attention to the crucial factor in determining evolutionary adaptation being our preferences and dislikes. Dieticians (and evolutionary psychologists) tend to remind us

⁸ Dutton, D. *ibid*

that our liking for sweet and fatty food can be traced back to our early ancestors when such foods were essential for survival, similarly our revulsion of tainted food ensured an avoidance of disease. Dutton notes that characteristics associated with art making can be expressed in the same way, such as our aesthetic responses to the environment – the aesthetic enjoyment of certain forms is also said to be a universal, in particular the appreciation of living things. This relates to Wilson's concept of 'biophilia', which is concerned with exploring the profound connections that human beings have with nature; further to this, Wilson proposed that such affiliations are rooted in our biology.

Howard Gardner, well known for his work on 'multiple intelligences', in his original book of 1983, identified seven discrete kinds of intelligence and subsequent to this, he added an eighth – 'naturalistic intelligence' 10. This particular intelligence appears to be strongly associated with creative responses to the environment. Peter Steinhart, in his book *The Undressed Art* draws attention to the commonalities between artists, particularly those who draw, and naturalists:

They are both servants of their eyes. A naturalist learns to look intently at things, to listen to them, smell them, touch them, to wonder what they are made of, what they do, how they are like or not like each other, what they mean. I was fascinated with birds, not with their miraculous ability to fly, but by the combination of their liveliness and accessibility on one hand and their precise and complicated detail on the other. Watching such things forces one also to wonder about their comings and goings and purposes in the world; to consider what is revealed and what is hidden and how the two accommodate each other. It seems to me now much like what an artist does, looking for form and line and color and texture to define the relationship between spirit and substance.¹¹.

He goes on to say that one draws chiefly to advance one's understanding and that a drawing is a picture of that understanding. Steinhart puts forward the notion that the 'visualizing' which is an integral part of drawing, and which is a private activity involving the imagination, is a mode of thinking which has evolved alongside speech; he asserts that our ability to make mental images and to hold ideas in the form of symbols increases our ability to record and manipulate experience. An opposing view might be that all thought is linguistically based and that language determines perception.

⁹ Wilson, E.O. (1984). *Biophilia*. Cambridge: Harvard University Press.

¹⁰ Gardner, H. (1999) Intelligence Reframed: Multiple Intelligences for the 21st century. New York: Basic Books. The notion of multiple intelligence first appeared in Gardner, H. (1983) Frames of Mind: The theory of multiple intelligences. New York: Basic Books.

¹¹ Steinhart, P. (2004) The Undressed Art — Why We Draw. New York: Alfred A. Knopf, pp. 11–12.

Creating and conferring aesthetic significance

Amongst the people I have talked with about their creative endeavors are many who do not consider themselves to be artists, but exhibit all of the tendencies which artists often display: a passionate desire to create something which looks good and feels right – something which has particular significance, whether it be a birthday cake, a garden, or a hairstyle. In such activities, intuition, expression, skill and a consideration of aesthetic form – all attributes of artistic activity – are considered important. I contend that what everyone needs is the opportunity to create, and when the occasion calls for it, to create something of aesthetic significance, that is, something that has meaning for the person who created it.

The term that I used in an earlier work¹² is 'creating aesthetic significance'. 'Creating' because of that word's association with creativity and inventiveness, concepts that have a particular resonance when talking about human development; 'aesthetic', because we are concerned here with the senses, while 'significance' is associated with meaning and 'signs' which are highly expressive and invite attention. I am not aware of any culture in the history of humankind that does not create aesthetic significance. I would suggest that if an individual person has not demonstrated the ability or desire to create something of aesthetic significance, it is because of lack of opportunity. The urge to create aesthetic significance is often facilitated through such activities as art and craft, and also in cake-making, gardening and hair styling. Where there are no opportunities to engage in making activities, the urge is manifested in other ways, not always positive. To underline my conviction that aspects of behavior which are associated with art-making have a biological rather than a purely cultural foundation, I point to the fact that humans appear to have a strong interest in creating and enjoying narratives. There is also of course our abiding appreciation of made objects that demonstrate virtuosity; the appreciation of technical skill is pan-cultural, only the criteria for judgment differ between cultures.

The concept of art-making being a fundamental human trait has been around for some time; Ellen Dissayanake¹³ for instance argues that art, or at least 'making special', is a fundamental evolutionary adaptation, developing the argument she put forward in an earlier text¹⁴ where she makes a case for viewing art from a 'species-centric' perspective. She refers to the fact that all human (and for that matter, animal) characteristics that are necessary for the continuation of the species are in some way enjoyable. Dissayanake argues that art, or at least making special, is a fundamental evolutionary adaptation, such as fear of heights. Steven Pinker however believes that art is a byproduct of three other adaptations, namely the hunger for status, the aesthetic pleasure of experiencing adaptive environments and the ability to design artefacts to achieve

¹² Author (2005).

 $^{^{13}}$ Dissanayake, E. (1995) *Homo Aestheticus*. Where are comes from and why. London: University of Washington Press.

¹⁴ Dissayanake, E. (1988) What is Art For? Seattle: University of Washington Press.

desired ends¹⁵. Nevertheless, both views appear to endorse the view that art is an essential part of human make-up.

Individual artists, who place their work in the public domain, are often concerned with universal themes, such as sex and death, but artists are not unique in this respect. It is commonplace for those traumatized by death or in anguish over love to compose poetry or in some way create something of aesthetic significance. The significance is however to the individual; the act of creating in these circumstances is usually private, there is no intent to put the poem, drawing or whatever into the public realm. There are several themes that recur throughout humans beings' pictorial history, in addition to this there are what I would consider to be universal concerns, one of which is beauty. The opening lines of Elaine Scarry's book *On Beauty* are apposite here:

What is the felt experience of cognition at the moment one stands in the presence of a beautiful boy or flower or bird? It seems to incite, even to require, the act of replication. Wittgenstein says that when the eye sees something beautiful, the hand wants to draw it.

Beauty brings copies of itself into being. It makes us draw it, take photographs of it, or describe it to other people. Sometimes it gives rise to exact replication and at other times to resemblances and still other times to things whose connection to the original site of inspiration is unrecognizable. ¹⁶

Here we can see an example of two aspects of human creativity that have been sidelined since the rise of Modernism: beauty and imitation. I suspect that the basic human desire to imitate and to relate to certain forms, colors and structures in a positive way will outlive the tenets of modernism and post-modernism. It seems to me perverse to deny that certain forms and colors, such as those found in nature, are universally admired. Such denials seem to be expounded in order to uphold an exaggerated notion of the importance of culture in determining human preferences and predispositions in art. As with appreciation of technical skill, appreciation of beauty, as a concept, appears to be universal, while the criteria for judging what is beautiful are clearly culturally determined, despite the (oft-quoted) line from Symons: 'beauty is in the adaptations of the beholder'¹⁷. In addition to the notion that humankind has an innate desire to create, I contend that we also have an innate desire to confer aesthetic significance.

The concept of art is less stable than many other concepts, as it is intrinsically bound up with the concepts of 'culture' and 'society' which themselves refer to amorphous and dynamic phenomena; it is not surprising therefore that both the concept and the practices of art are said to be culturally determined. If we see creating aesthetic

¹⁵ Pinker, 2003 op. cit.

 $^{^{16}}$ Scarry, E. (2000) On Beauty — and Being Just. London: Gerald Duckworth, p. 1.

¹⁷ Symons, D. (1995). Beauty is in the adaptations of the beholder: The evolutionary psychology of human female sexual attractiveness. *Sexual nature*, sexual culture, 80–118.

significance – engaging in artistic activities – as an essential component of what it means to be human, then those of us who are not actively engaged in some kind of creative activity are not fulfilling our basic human needs, nor are we achieving our potential as individuals. If we follow a Darwinian line, we could also say that art making behaviors are selected for because they lead to technological innovation, something which clearly distinguishes us from other animals. However, 'Darwinian' has too many other associations, and so I would prefer to use the term 'essentialist' to convey the idea that art-making (or at least creating aesthetic significance) is a human activity which is essential for health and ultimately the survival of the species. To quote Dutton, from his discussion on problem-solving and story-telling:

If survival in life is a matter of dealing with an often inhospitable universe, and dealing with members of our own species, both friendly and unfriendly, there would be general benefit to be derived from imaginatively exercising the mind in order to prepare it for our next challenge. Puzzle-solving of all kinds, thinking through imagined alternative strategies to meet difficulties – these are at the heart of what the arts allow us to do. 18

While I am arguing that creating significance through art-making is a fundamental human urge, I would also state that we need the right conditions for this 'urge' to be fulfilled in a way which benefits both the individual and society as a whole.

Amongst the various artists and non-artists with whom I shared ideas over the years is Anthony Green RA, as successful artist who has works in many galleries of national importance. In a semi-structured (recorded) interview I raised the issue of people — all people — making things significant in an aesthetic kind of way, he replied thus:

The man in the street is a conceptualist without even realizing it. He dreams about where he's going to plant his delphiniums, his dahlias, his succulents. He comes home and makes his front garden wonderful. He comes home and even covers over his back garden and puts pigeon lofts on it, and he keeps the whippet in the bathroom and feeds it raw eggs and he dreams of winning things with it. Of course it's special, the whole business of, man has a spiritual side to him that yearns for special moments. Takes the missus out for a meal, goes to the park, celebrates anniversaries. All this, in a sense, why are we talking about art? What we're really talking about is just the very business of living. 19

It is this 'very business of living' that feeds into what we call culture, but how does culture come about? To facilitate an understanding of human cultural phenomena, I refer to two broad aspects: shallow culture ('planktonic') and deep culture ('benthonic'). Planktonic culture is multifarious, relatively short-lived and dynamic, it is

¹⁸ Dutton, 2003, op. cit.

¹⁹ Recording made in the artist's studio May 2004.

characterized by such things as fashion and taste, fed by opinions and preferences and represented through mass media, and the signs and images of commerce, industry and politics. Benthonic culture is relatively stable over many generations, is durable rather than ephemeral and fed by the values, customs and beliefs derived from mythology, philosophy, and religion and reified in traditional icons and symbols. Benthonic culture appears to have no genesis, but it did not arise spontaneously, it evolved as a result of people's inherited pre-disposition to enquire, express, innovate and create. I suggest therefore that there is a phylogenetic aspect that feeds into and provides the genesis for benthonic culture; perhaps a coding residing amongst our alleles that determines humans' desire to create; in this respect, I share the view of Joseph Carroll' with regard to the relationship between human culture and human evolution. Carroll asserts:

In different ecologies and different forms of social organization, the elements of human nature combine in distinctive ways, but 'culture' cannot build structures out of nothing. It must work with the genetically transmitted dispositions of an evolved and adapted human nature. The arts give imaginative shape to the experiences possible within any given culture, reflecting its tensions, conflicts, and satisfactions.²¹

In writing about making sense of cultural activity in relation to evolutionary psychology he declares that the arts form an 'imaginative interface' between complex cognitive structures and inherited behavior.

'Art' and natural selection

Dennis Dutton encapsulates the principal arguments surrounding the notion that human beings have an 'art instinct'²². In advocating a biological rather than a socially constructed conception of art, Dutton asserts that art forms are found everywhere, regardless of culture and that art's universality suggests that it is connected with prehistoric psychological adaptations. By this he means adaptations from an evolutionary perspective, developments that have become incorporated into the very essence of humanity. In particular, Dutton presents a case for the arts playing a significant role in sexual selection, he writes:

Competently using not just the words 'green' or 'blue', but being able capably to employ 'navy', 'jade' 'azure', 'ultramarine', 'cerulean', 'sea green',

²⁰ Carroll, J. (2006). The human revolution and the adaptive function of literature. *Philosophy and Literature*, 30 (1), 33–49 and Carroll, J. (2009). The Adaptive Function of Literature and the Other Arts. onthehuman.org

²¹ Carroll, 2009 *ibid*. Last checked 21 March 2014).

²² Dutton, D. 2009, op. cit.

'lime' chartreuse', 'cobalt blue', forest green', 'sapphire', 'aquamarine', and so on – is an ornamental capacity analogous to the peacock's tail. (pp 148–149)

This notion is comprehensively reviewed by Miller who makes a challenging but ultimately convincing argument that cultural displays, in the broadest sense, play a role in sexual selection. In a later publication, he asserts the following:

When a young male rock star stands up in front of a crowd is not improving his survival prospects. Nor is he engaging in some bizarre maladaptive behavior that requires some new process of 'cultural evolution' to explain. Rather, he is doing something that fulfills exactly the same function as a male nightingale singing or a male peacock showing off his tail. He is attracting sexual partners.²³

There is no shortage of critics who would take issue with this assertion, and some draw attention to weaknesses in both Miller's and Dutton's overall thesis that modern humans' aesthetic behavior can be traced back to the Pleistocene period²⁴. There is however an increasingly coherent argument in support of the notion that *creating* and conferring aesthetic significance can be considered a fundamental human trait. Building upon their earlier scholarship, Tooby and Cosmides prefer to use the terms 'art' and 'artist', but they are clear about its universality:

we think that art is universal because each human was designed by evolution to be an artist, driving her own mental development according to evolved aesthetic principles. From infancy self-orchestrated experiences are the original artistic medium, and the self is the original and primary audience.²⁵

Concluding comments

My concern here is to locate the essence of what it is to be human within the physical, visual manifestations of humanity. I introduced this paper with an anecdote

²³ Miller, G. F. (1998). How mate choice shaped human nature: A review of sexual selection and human evolution. In C. Crawford & D. Krebs (Eds.), Handbook of evolutionary psychology: Ideas, issues, and applications (pp. 87–129). Mahwah, NJ: Erlbaump,73. See also Miller, G. F. (1999). Sexual selection for cultural displays. In R. Dunbar, C. Knight, & C. Power (Eds.), *The evolution of culture*. Edinburgh U. Press.

²⁴ See for example MacClancy, J. (2009) The Art Instinct: Beauty, Pleasure, and Human Evolution, in *Times Higher Education Supplement*, 30th July, 2009.

²⁵ Tooby, J., and Cosmides, L. (2001). Does Beauty Build Adapted Minds? Toward an Evolutionary Theory of Aesthetics, Fiction, and the Arts. *SubStance* 30: 6–27, p. 25. See also Tooby, J., and Cosmides, L. (1992). The Psychological Foundations of Culture, in J. Barkow, L. Cosmides, and J. Tooby. *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. New York: Oxford University Press: 19–136.

about noticing a dead tree and alluded to the utilitarian value of being sensitive to its status, but in the modern, indeed post-modern age we can afford, in fact I would suggest, *need* to experience beauty and the joy of not just looking at an arresting art work, but also noticing paint flaking off a door, a palimpsest of images from torn advertising hoardings, or dew on a spider's web. It is apposite here to refer to Charles Darwin himself; he notes that a lifetime of using his mind as 'a kind of machine for grinding general laws out of large collections of facts', caused him to lose his enjoyment of the arts. He wrote, on May 1st 1881, the following:

I have also said that formerly pictures gave me considerable, and music very great delight. But now for many years I cannot endure to read a line of poetry: I have tried lately to read Shakespeare, and found it so intolerably dull that it nauseated me. I have also almost lost my taste for pictures or music. Music generally sets me thinking too energetically on what I have been at work on, instead of giving me pleasure. I retain some taste for fine scenery, but it does not cause me the exquisite delight which it formerly did. [...] This curious and lamentable loss of the higher aesthetic tastes is all the odder, as books on history, biographies, and travels (independently of any scientific facts which they may contain), and essays on all sorts of subjects interest me as much as ever they did. My mind seems to have become a kind of machine for grinding general laws out of large collections of facts, but why this should have caused the atrophy of that part of the brain alone, on which the higher tastes depend, I cannot conceive. A man with a mind more highly organised or better constituted than mine, would not, I suppose, have thus suffered; and if I had to live my life again, I would have made a rule to read some poetry and listen to some music at least once every week; for perhaps the parts of my brain now atrophied would thus have been kept active through use. The loss of these tastes is a loss of happiness, and may possibly be injurious to the intellect, and more probably to the moral character, by enfeebling the emotional part of our nature.²⁶

Steven Mithen, in writing about the pre-historic human mind, refers to three cognitive processes that he sees as essential aspects of art making: the mental conception of an image, intentional communication and the attribution of meaning and asserts that these processes were all present in Early Humans. What is usually seen as the 'cultural explosion' of about 40,000 years ago occurred as a result of these cognitive processes (in the domains of technical, social and natural history intelligence) fusing, creating, as Mithen puts it, 'the new cognitive process which we call visual symbolism, or simply art'²⁷. Hence, modern humans have evolved to make and experience art as

 $^{^{26}}$ From Barlow, N (1969) (ed.) The autobiography of Charles Darwin, 1809–1882: with original omissions restored. New York: W.W. Norton.

²⁷ Mithen, S. (1996). The Prehistory of the Mind: The Cognitive Origins of Art, Religion, and Science. London: Thames and Hudson, p.43.

part of our essential make-up. We need aesthetic experience at a fundamental level and it is vital that we ensure that young people have access to materials for art-making and have access to artistic products. Beauty is important for us, although this word has (until recently) fallen out of favor amongst social commentators, as have words like joy, delight, wonder, charm, enchantment. Humans have an innate sense of aesthetic 'rightness'; we confer aesthetic significance upon a wide range of phenomena. I contend therefore that the thing that sums up our fundamental character as (to use Dissayanake's term) 'Homo aestheticus' is our innate capacity for *creating and conferring aesthetic significance* and that to deny young people the opportunity to do this would be to deny their essential humanity.

$\begin{array}{c} {\rm Richard\ Hickman} \\ {\rm Reflections\ on\ art\ making\ and\ evolutionary\ psychology} \\ {\rm Fall\ 2016} \end{array}$

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