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GENESIS AND DEVELOPMENT OF «MAKING SPECIAL»: IS THE CONCEPT RELEVANT TO AESTHETIC PHILOSOPHY?

Abstract

Noting that the ethological notion of «making special» (now also called «artification») has gained attention in several fields, including aesthetic philosophy, a brief history is presented of its origin and development over forty years. Its origin is traced to «proto-aesthetic» elements of interactions that evolved in Middle Pleistocene mothers and infants: simplification or formalization, repetition, exaggeration, elaboration, and manipulation of expectation. These operations upon visual, vocal, and gestural modalities were subsequently used by individuals and cultures in creating and responding to their various arts. Artification is a broader human proclivity than «art». Unlike other notions of art it does not imply beauty or skill although in its motivation to mark importance, the ordinary is made extraordinary. In its emphasis on preverbal, presymbolic, pancultural, participative, affective, and affinitive aspects of aesthetic cognition and behavior, the artification hypothesis provides further directions to cognitivist and neuroscientific studies in contemporary philosophical aesthetics.

After decades of indifference or skepticism, the growing interest by aesthetic psychologists and philosophers in a Darwinian view of the arts is welcome[1]. In the late 1960s, when I first wondered about the biological origin and nature of art, there were few if any informed speculations apart from Desmond Morris's study of painting in chimpanzees[2]. Psychologist Daniel Berlyne and his students approached aesthetic experience and the arts experimentally[3], implicitly regarding these as psychobiological phenomena, but to my knowledge I am the

[1] Dutton 2009, DeSmedt, DeCruz 2010; 2011; 2012; Davies 2012; Verpooten, Nellison 2012; this issue.

[2] Morris 1962.

[3] Berlyne 1971.

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first scholar to have addressed the arts systematically as possible products of biological evolution[4].

Because my early notion of "making special" has been discussed by philosophers and psychologists of the arts (e.g., De Sousa 2004; Davies 2005, 2012; De Smedt and De Cruz 2010), I appreciate the opportunity to comment on what I understand to be the relevance of its more recent formulations to aesthetic philosophy. My title thus has a double meaning, referring not only to the phylogeny of the phenomenon in human evolution but also to the origin and development of the idea of "making special" in my own thinking.

The genesis of "Making Special"

My interest in a Darwinian approach to the arts began in the 1960s after reading an article about play in mammals[5]. The author was an associate of Konrad Lorenz, one of the founders of the relatively new field of ethology (today often called behavioral ecology) – the biological study of the behavior of animals in their natural environment. Some of the general characteristics of animal play (e.g., being non-functional or "for its own sake," self-rewarding, and pleasurable; a repeated exchange of tensions and releases; metaphorical in the sense that something "stands for" or is "seen as" something else; the acceptance or creation of a non-"real" or "as if" world apart from the ordinary world) immediately reminded me of art as I understood it from aesthetic theory of the time and my own experiences of the arts, especially music. I wondered whether one could think of human art as a kind of "behavior" that, like language, tool-making, infant attachment, and other evolved behaviors, arose and persisted because it contributed in some way to the survival and reproductive success of our Pleistocene forebears and perhaps even humans of today.

In my first published paper, I considered art as an outgrowth of play (a behavior that occurs in many other animals as well as humans). I characterized art as «an activity or behavior involving the intentional making or expressing of something that is more than necessary for practical purposes»[6]. I used the phrase «make … special,» in passing[7], but it was meant to stand as a synonym for «more than necessary for practical purposes». In my second paper, which described similarities between ritual and art[8], art was characterized as «shaping and embellishing the experienced, sensed and imagined aspects of ordinary life to make them more-than-ordinary»[9] and "making special" did not appear at all.

[4] Dissanayake 1974, 1979, 1980, 1982.

[5] Meyer-Holzapfel 1956.

[6] Dissanayake 1974: 212.

[7] *Ibidem*: 217.

[8] Dissanayake 1979.

[9] *Ibidem*: 27.

In my third article, however, «the ability to recognize or confer "specialness," a level or order different from the everyday,» is the "root proclivity" in our "pre-paleolithic ancestors" from which a behavior of art developed[10].

In every case, even today, when giving artistic expression to an idea, or decorating an object, or recognizing that an idea or object is artistic, one gives it (or acknowledges) a specialness that without one's activity or regard it would not have. One renders it special, recognizes that it is extraordinary. This characteristic of art has been referred to by other names by other thinkers, e.g., transformation, aesthetic transposition or promotion. It is a sort of "jacking up," a saltation or quantum leap from the quotidian reality in which life's vital needs and activities occur, to a different order, an "aesthetic order"[11].

Finally, in my fourth article, "making special" was proposed as a general category of human behavior that had not been previously described: «[t]his universal ability or proclivity is to recognize that some things are "special," and even more, to *make things special* – that is, to treat them as different from the everyday»[12].

Although many, including myself, would insist that there is more to art than this, I would like for the present to suggest that art – as we know it and as we recognize it in other human societies, present and past, even those which have no concept or word for art – is an instance of this broader human faculty or proclivity for making special. In its specifically artistic form it is concerned with shaping and embellishing everyday ordinary reality so that it becomes extraordinary, i.e., on a different "level" from the usual daily round of satisfying vital needs of food, rest, social interaction, shelter, care, and so forth. Just as there is more to art than "making special," this starting point or common denominator is not confined to what we call art. It is, however, more restrictive than the other proposed common denominators [e.g., skill, beauty, order, harmony, emotional expression – which also characterize many kinds of non-art activities], and therefore seems a better place than these to start. For I can think of only two kinds of normal conscious human behavior that are concerned with a world other than the everyday, and often with making things special – these are ritual and play[13].

I consider this statement still to be an accurate, if incomplete, formulation of my ideas on the matter. With the exception of Davies (2012), most critical discussants of my idea of making special have overlooked my assertion that there is more to art than making special and that making special is not confined to art.

Since 2001[14], I have adopted the word "artify" – exchanging a term that sounds simplistic for one that sounds dull but more academically acceptable – and have

[10] Dissanayake 1980: 401.

[11] *Ibidem*: 401.

[12] Dissanayake 1982: 148.

[13] *Ibidem*: 148.

[14] Dissanayake 2001, 2003, 2007a, 2007b, 2009, 2012, *In Press.*

"operationalized" the term, describing five "proto-aesthetic operations" that emerge from basic biological processes and are used when artifying (making special) an artifact, event, place, utterance, sound, movement, or idea. In what follows, I shall use both terms interchangeably, expecting that readers will take into account that my ideas of the 1970s and 1980s have been expanded and enriched with recent findings from neuroscience and paleoarchaeology that were not available when I began my studies.

The proposed origin of "artification" in ancestral mother-infant interaction

Developmental psychologists have increasingly discovered the importance of the emotional relationship between babies and their caretakers, especially mothers. A Darwinian would say that the relationship is important because it promotes infant survival and maternal reproductive success. I suggest that this vital relationship, which evolved in pre-*sapiens* hominins, contains the germs of human art (using the term "art" here to mean "the arts" of music, dance, the embellishment of artifacts and places, literary language, dramatizing, and so forth). It should be remembered that mother-infant interaction of today is an adaptive behavior that emerged in Middle Pleistocene hominins, close to two million years ago.

Infants, we have learned, come into the world with amazing social abilities. They are innately responsive to the sounds of human voices, in fact preferring human voices and faces to any other sound (e.g., soft music, tinkling bells) or sight (e.g., bright or strongly contrasting colors, cute stuffed animals). They can imitate face, mouth, and hand movements and respond to another person's expressions of sadness, fear, and surprise. Importantly, they have an exquisite sensitivity to simple rhythmic structure in time, which allows them to interact intimately with those who care for them.

In all societies that have been observed, mothers (and indeed fathers and others) behave with infants as they do with no one else. Their interaction is multimodal – that is, visual, vocal, and gestural behaviors occur contingently in both parties.

Visually, mothers look into their infant's face and eyes ("mutual gaze"), with widened eyes, an open mouth or smile. They may bob their head backward and nod up and down, slowly. They speak in a characteristic manner (called "motherese", "infant-directed speech", or "baby talk"), using elevated pitch, slower tempo, exaggerated vocal contours, elongated vowels, and a soft breathy tone[15]. They repeat words and phrases. They touch, hold, and cuddle infants or rock and pat them in a regular pulse.

Analyses of video recordings of these interchanges show that as early as 8 weeks of age there is remarkable temporal coordination between the pair. They

[15] Monnot 1999.

interact within a common pulse, led by the mother according to her perception of the infant's current state. If the interaction is experimentally desynchronized, both partners become puzzled and upset[16].

In the early weeks, the mother seeks to engage and hold the baby's attention or match its moods in order to maintain an optimum level of alertness or, when necessary, to soothe and calm it. The interaction is not didactic or self-conscious: to both partners, it feels like and *is* spontaneous play. As babies become older, they are bored with soothing and want excitement, which the mother duly provides. Her facial expressions become more exaggerated in space and time, more varied and modulated. She may tease and create anticipation (as in "Peek-a-boo" and "This little piggy"). There is a great deal of vocal movement, emphatic contour, glissando, and dynamic variation.

This type of encounter exists not only between mothers and infants in modern Western research laboratories but occurs cross-culturally. As a universal behavior, why should it have evolved? What biological or evolutionary function does it serve? It is so common that most people don't even think about it: it's just what parents and infants do, how they behave. Psychologists describe at least six distinct benefits to babies from the way adults *talk* to babies, as well as from the general multi-modal interaction. These include bonding, emotional regulation, cognitive practice in anticipating and evaluating discrepancies from what is expected, practice in back-and-forth socializing with others, preparation for learning language, and learning one's own culture's norms of proper behavior[17].

In addition to these benefits, which are well known to psychologists, I claim that the interaction has a further benefit: it *prepares infants to be artists* in the broad sense of the term, initially to be receptive to "proto-aesthetic operations" in any modality.

Proto-aesthetic operations

If one looks abstractly at what adults interacting with infants do to their faces, head and body movements, and vocalizations, the following operations or alterations can be observed[18]:

[16] Murray and Trevarthen 1985; Nadel *et al.* 1999.

[17] See fuller description in Dissanayake 2007a: 787-788. An unintended experiment that dramatically shows the biological and cultural importance to infants of face-to-face intimate interaction with adults came to light after the break-up of the Soviet Union and the discovery of Eastern European orphanages in which children had been physically cared for but otherwise neglected. For research on emotional and cognitive effects of emotional neglect, see online reports of findings from the Laboratories of Cognitive Neuroscience at Boston Children's Hospital, Charles A. Nelson, PhD, Director; www.iddrc.org/childrenshospital.org/cfapps/research/data_admin/Site2205/mainpageS2205P0.html

[18] Miall and Dissanayake 2003.

Simplification or Formalization – All modalities are altered from their ordinary use in adult-adult interactions. For example, when transcribed, utterances of baby-talk fall into stanzas or framed episodes with a clear beginning or introduction and final felt closure, sometimes with a refrain or coda. Facial expressions (open mouth, smile, wide eyes) and vocal sounds may be sustained or held. Movements of head and body are regularized.

Repetition – The use of short, simple (one- or two-syllable) words or phrases that are frequently repeated encourages a repetitive regulating meter; pats and other body movements (gestural) and head nods (visual and gestural) are also repeated.

Exaggeration – Expanded vocal contours are prominent and vocal volume may have noteworthy dynamic contrasts such as heavy stresses or accents; eyes and mouth may be exaggeratedly open or wide; smiles too are often exaggerated and sustained, as are head nods and bobs.

Elaboration – There are frequent dynamic variations of a "theme" (established at the outset of verbal utterances) or of vocal sounds and face or head movements; alliteration and assonance of words are evident in transcripts.

Manipulation of Expectation – With older infants, songs and games such as (in English) "Round and round the garden", "This little piggy", "Eentsy weentsy spider", and "Peek-a-boo" play with the tension and release of anticipation and its fulfillment.

Interestingly, these same operations are what artists also do to their various media and materials, thereby (like mothers with infants) attracting attention from an audience, sustaining interest, and evoking and manipulating emotion. Although adults certainly bring more to bear on their aesthetic experiences than do infants in their responses to proto-aesthetic operations, the fundamental structural components of the experience are the same.

There would be no reason to behave like this with infants unless they liked it, which they indicate with irresistible smiles, wriggles, and coos. That is to say, infants teach adults to make funny faces and speak in a peculiar way to them. The fact that babies are receptive to exactly these operations, in a multi-modal form, suggests that they are born with aesthetic (or proto-aesthetic) capacities upon which the arts can be built. They are born ready to become artists, as is evident in societies in which the arts are prominent and youngsters imitate their elders. The elements that made possible ancestral mother-infant interaction comprise the biological seedbed from which individuals and cultures could later go on to create their arts.

Before suggesting how this might have happened and before I say more about proto-aesthetic operations, let us look briefly at the evolutionary background for the development of mother-infant interaction.

The obstetric dilemma

What has been called "the obstetric dilemma" is the result of two important adaptations in hominins (our taxonomic "tribe"): *upright walking*, a distinguish-

ing characteristic that required numerous anatomical adjustments (e.g., skeletomuscular changes in neck, shoulders, spine, foot, knee, hips and pelvis) that allowed quadrupeds to become bipeds; and *brain enlargement*, which accelerated between the earliest hominin, *Australopithecus* (508cc) and *H. erectus* (973cc) and again, even more dramatically, another doubling in size between *H. ergaster* and modern humans who have a brain size of about 1400cc[19].

With a narrowed pelvis necessary for bipedal walking, females of a large-brained species confront a "dilemma" at parturition. One evolutionary solution was a gradually reduced gestation period, so that infants were born increasingly "prematurely," making them smaller but also extremely helpless. It has been estimated that if a human baby had the physical maturity of a chimpanzee baby at birth, the gestation period would be 21 months and the baby would weigh 25 pounds[20].

Other adaptations addressed the dilemma. Much brain growth in humans takes place outside the womb. Although the brain size of an infant human at birth is about that of a newborn chimpanzee (350cc), it triples between birth and four years[21], whereas a chimpanzee has only a small postnatal increase (from 350 to 450cc). At maturity, the human brain size is four times the size at birth (ca 1400cc). Additionally, the infant skull is compressible at birth and the female pubic symphysis is able to separate, temporarily making the pelvic ring slightly larger.

In addition to these anatomical modifications, an unprecedented behavioral adaptation also occurred. Although all female mammals, and especially all primates, are attentive mothers, in ancestral hominins there developed an interactive, temporally coordinated face-to-face relationship in which a helpless, demanding baby nevertheless was able to attract and reinforce its mother's interest, encouraging her to bond with and willingly care for it not just for days, weeks, or months, but years. The neurological mechanism for this psychological and emotional adaptation is as follows.

The vocal, visual, and gestural signals used by mothers with their infants are modifications of spontaneous ordinary signals that human adults universally use with each other to indicate friendliness and readiness for further contact, some of which also occur in other primates. These affinitive signals are visual (smile, open mouth, raised eyebrows, widened eyes, bob, nod), vocal (use of soft, relaxed, musical voice), and gestural (reach toward, touch, pat, embrace, kiss). By formalizing, exaggerating, repeating, and elaborating these signals, the brain circuits and pro-social hormones that underlie affinitive feelings in all mammals

[19] Falk 2004: 499; Mithen 2005; Flinn and Ward 2005: 31.

[20] Portman 1941; Gould 1977; Leakey 1994; Falk 2009

[21] Mithen 1996: 192.

are activated and reinforced[22], assuring that the mother feels fondness for and happiness with her baby.

It is not farfetched to posit that the adaptive bonding between mothers and infants of the Pleistocene resulted from the proto-aesthetic operations previously described. The operations can be observed in many other animals in what ethologists call "ritualized behaviors," in which an ordinary behavior is transformed over evolutionary time into a new, extra-ordinary behavior that communicates something different from its original use.

A good example of a ritualized behavior is the peacock's display of his tail, which has become something far more extravagant than the appendage used casually by other pheasant species for fanning (thermoregulation) and balance[23]. When erected, its size and pattern are markedly conspicuous: formalized, repeated, exaggerated, and elaborated. The simultaneous quivering movement draws even more attention to the message (directed to peahens): «I am beautiful and healthy, obviously an excellent choice for a mate.» So there is nothing wildly unprecedented in a biological sense about the use of and response to proto-aesthetic operations, except that only in humans did they become fully aesthetic, in the sense that they may be performed deliberately to a greater degree and to a broader array of things, indeed to almost anything.

Aesthetic operations, salience, and the arts

The operations used by mothers with infants, as by peacocks to peahens, serve to make specific signals salient. Prominence or emphasis of any sort is potentially *emotional*. Normally our lives are spent in a general unremarkable state of ordinary consciousness in which we do not experience "emotion" so much as what might be described as mood fluctuations, whose eddies are more or less good (positive) or bad (negative) or indifferent. Emotion enters or potentially enters the scene when there is some discrepancy or change, provoking an interest. We appraise a salient or novel cue, anticipating what it means for our vital interests.

The process (and results) of artification in any medium uses salience to attract attention and manipulate emotional response. I have argued that the arts began when our Pleistocene ancestors began deliberately to "artify" ordinary artifacts and behavior – shaping and enhancing them so that they were no longer ordinary, but somehow extra-ordinary. Drawing upon their innate sensitivity to proto-aesthetic operations in vocal, visual, and gestural modalities, present from infancy, early humans "invented" ritual ceremonies, packages of salient multimodal artifications that we as scholars (rather than participants) can separate into their various elements: chant, song, literary language, mime, theatre, dance, and visual enhancement – the arts.

[22] Panksepp 1998.

[23] Eibl-Eibesfeldt 1971: 44-47.

In the visual arts, for example, ordinary materials are made special by shaping or patterning: tiny snail shells may be pierced and strung into a necklace or affixed to clothing where they acquire a new significance as personal décor and are no longer unnoticed detritus. By rounding their shape and combining them with each other, such salient features as shininess and symmetrically rounded contour become exaggerated en masse, becoming additionally salient – noticeable in themselves – as does the human skin or animal hide on which they rest. Ordinary human hair is braided or bound rather than remaining wild and shaggy like animal fur. Color, such as red ocher, is applied to the shell necklace, human hair, or the human body to make these even more attention-getting and more special.

The same is true for other arts. Whether spoken or written, literary language makes ordinary language special by its form (use of stanzas, rhyme scheme, meter or rhythm) and vividness or color (use of unusual vocabulary and word order, alliteration, assonance, and other rhetorical or poetic devices). Stories are given shape, emphases, and elaborative details that surpass the bare facts of their plot. In dance, ordinary body movements of everyday life are shaped, patterned, and made vivid through repetition, exaggeration, and elaboration. In song, the expressive features of the human voice – melody, rhythm, dynamics – are formalized into conventional intervallic patterns and regularized meter, exaggerated with sustained vowels, and given notable dynamic variation.

People tend to artify when they care about some matter. For our Pleistocene ancestors who invented the arts, the important things that were artified had to do with material subsistence – hunting and food, prosperity, preservation of the natural, social, or divine order, appearance of the self, fertility, health, safety, group continuance and harmony, averting misfortune, and successfully traversing transitional stages of life from birth to death. These all have to do with survival of individuals and groups, and individual reproductive success. Although there is not space here to describe proximate and ultimate levels of motivation and adaptation, it should be said that among its many adaptive biological and social functions, artification draws attention to vital matters, provides something to do to address uncertainty, relieves individual anxiety, establishes trust and confidence among participants, and coordinates and bonds individuals in a group[24]. In modern societies, the arts may no longer be participative or "religious", but nevertheless they frequently display private preoccupations of the self, particularly as these are concerned with the human condition – the trials of the human spirit.

Aesthetic effects beyond beauty

When people artify, they generally make use of appealing sensory and cognitive features that may have biological relevance. Researchers in evolutionary aesthetics and neuroaesthetics have identified elementary "aesthetic" properties such as

[24] See Dissanayake *In Press*: 211-212.

bright or contrasting colors, shininess, symmetrical forms, euphonious sounds, and graceful movements that may be considered by their users "beautiful". Additionally, because people care, they may use or require "skill" or "complexity" in their artifications. In my scheme, however, neither skill nor beauty is essential to artification. What is primary is that ordinary reality is made more than ordinary, extra-ordinary, through the proto-aesthetic operations listed earlier.

In 18th-century Tahiti, *tamau* – skeins of finely plaited hair of immense length (a visitor described one as measuring "an English mile and three-quarters") – were given as gifts in exchanges that accompanied the formation of special friendships (*taio*) with significant economic, political, and spiritual obligations. Made with 15-35 strands of human hair, in three plies, *tamau* were highly valued, worn as a headdress by both sexes on special occasions[25].

An aesthetic that demands beauty as a necessary feature of art would exclude *tamau*, although one that requires skill would include them. Certainly, however, they are instances of artification – using aesthetic operations of repetition, exaggeration, and elaboration to create an emotional effect and mark something (*taio*) as important. The late anthropologist Alfred Gell pointed out that Melanesian aesthetics is about efficacy – the capacity to accomplish tasks – not "beauty"[26]. Those who braid *tamau* make hair special and demonstrate their regard for the important relationship it represents, whether or not their owners or perceivers consider a two-mile length of braided hair to be "beautiful" or "art".

Another example of artification is the Mother of Battles Mosque built in the 1990s in Baghdad's western outskirts by Saddam Hussein when he was president of Iraq. Described as a vast edifice of gleaming white limestone and blue mosaic, it has four outer minarets, each 140 feet high, built to resemble the barrels of Kalashnikov rifles pointing skyward. The inner four minarets, each 120 feet and frequently decorated with red, white, and black Iraqi flags, are in the form of Scud missiles of the kind fired at Israel in the Persian Gulf War. Inside, in a special sanctum, are displayed 650 pages of the Quran said to have been written in Saddam's blood donated over two years (28 liters or 50 pints in all). The unmistakable message of all this artification is not particularly surprising: Saddam is great, the natural leader of an Arab world; Iraqis are great warriors, waiting to avenge the wrongs committed against them[27].

Perhaps Saddam and his followers considered the mosque to be beautiful, but the appreciation of "beauty" hardly describes his intention or the effect on others of this mega-artification of a house of worship. Gell's notion of art is appropriate here[28]. Calling art a "technology of enchantment," he has stimulated a group of researchers in primarily Australo-Melanesian arts who describe how

[25] D'Alleva 2001.

[26] Gell 1998: 94.

[27] Burns 2002.

[28] Gell 1992, 1998.

objects or performances are intended by their makers and users to tantalize, frustrate, or entrance perceivers by means of complex patterns, repetitive dots, and other psycho-perceptual techniques, thereby fascinating viewers in order to gain power over them.

Consider the Trobriand *masawa* (ceremonial canoe used for trading journeys to distant neighboring islands). A canoe is a tree trunk that humans have extracted from nature and turned into a cultural product – a vessel that is seaworthy and will hold the required number of men. But that is not enough. Because the journey is culturally important and physically dangerous, people ensure that the vessel will perform as desired.

Although a canoe's prow board is a hydrodynamic necessity, the Trobriander artifiers make it special, carving it into complex symbolic shapes that are painted with bold contrasting colors, both for spiritual protection during long sea voyages and also to work a kind of psychological warfare on viewers when the competitive exchanges begin. It is hoped that they will be dazzled, beguiled, captivated, and confused, thereby susceptible to surrendering their *kula* (shell exchange) valuables[29].

Similarly, shields of the Asmat in Papua New Guinea have apotropaic patterns that entrance and ward off dangerous spirits; they are also important in the psychological warfare of headhunting[30]. Both "decorative" and "representational" art can enchant in this way. Asmat shields and Trobriand canoe prows use stylized motifs of birds (e.g., ospreys), insects (e.g., praying mantises), and mammals (e.g., bats) that have traits of strength, power, and agility – traits that are made additionally so when artified, presented in striking ways. In the Yolngu of Australia, ancestral power is indicated by the shimmer and dazzle of cross-hatched designs[31].

Neuroscientists of visual perception can explain why certain features attract attention and dazzle; evolutionary psychology can understand the adaptive benefits of power over others. But in their forays into "aesthetics," although they explain the mechanics of how we respond perceptually or cognitively, they are generally silent about the motivational and emotional complexities of artifiers and participants, as just described. Neuroaesthetics does not explain the differing responses of a Trobriander to a canoe prow and mine to a strongly contrasting red, black, and white pattern on the draperies in a hotel room. The concept of artification, like Gell's view of art as agency, encompasses both proximate motivations and emotion – the extremes of physical effort that artifiers consider necessary to achieve their desired effects and their strong concern to achieve vital outcomes.

[29] Gell 1992.

[30] Thomas 2001: 2, 5.

[31] Morphy 1992. In India, autorickshaws and taxis often display small chromolithographic images of Hindu gods surrounded with glitter, brocade, or plastic flowers. Some deities are pictured on a mirror, allowing devotees to see themselves looking at the deity who looks outward (Pinney 2001: 169).

In the Melanesian aesthetic of magical efficacy through virtuosity, objects and actions are considered to be strong and weak rather than beautiful or ugly. Brilliance and dazzle are meant to captivate and ensnare viewers (including spirits) in order to attract, transmit, or gain spiritual power. Although the desire to attain power is amenable to a Darwinian adaptive framework, it is not usually included in the Western aesthetic concept of "beauty," although one might make a case that the extravagant artifications of great cathedrals reflect the earthly and spiritual power of the church or of Christ[32]. A large red image of the spirit Baiami, maker of all things, painted on a rock wall outcropping near Milbrodale in the Blue Mountains of New South Wales, could not be called beautiful or skilled but it is certainly captivating and impressive because of its size, its geographical placement (overlooking a vast plain), its large heavily painted white staring eyes, the excessively long arms held outward as if to protectively embrace everything in view, and the large penis, supporting its body along with two other stout appendages – legs. The rock wall and the figure itself were certainly artified (made special), using aesthetic operations, in particular exaggeration and elaboration, and both transmitted power.

Relevance of "making special" to present-day aesthetic discourse

Over four decades, my original quest to understand the arts as having a biological origin has itself evolved. As I formulated the notion of making special, I thought that I was gradually getting to the basics of what art is (an epistemological and ontological question). Today I see that I was uncovering an overlooked universal species-specific characteristic of human nature – the predisposition to artify, which has antecedents and counterparts in ritualized and play behaviors in other animals and in components of mother-infant interactions that are posited to have been adaptive in early hominins (an ethological and evolutionary subject). Critics of my work who find that it does not address «art as we understand it» or that it «cannot account adequately for differences in the aesthetic value of artworks»[33] are correct. Those who challenge my adaptationist argument[34] do not address its more recent formulations that draw upon (a) posited proto-aesthetic operations in Pleistocene mother-infant interaction (b) neuroscientific research about the release of pro-social and anti-stress hormones in individuals who engage in temporally coordinated group activities such as song and dance. Additionally, some appear to be insufficiently acquainted with use of the terms by-product, exaptation, spandrel, and adaptation[35].

[32] Neuroaesthetics or evolutionary aesthetics have not to my knowledge treated the phenomena of dazzle and enchantment or the motivations for creating them.

[33] Davies 2005.

[34] De Sousa 2004; De Smedt and De Cruz 2010.

[35] Andrews, Gangestad, Matthews 2002; Gangestad 2008.

Although the artification hypothesis is not *strictu sensu* philosophical or about art as it is understood in the academy, it may be of interest to aesthetic philosophers insofar as they wish to appreciate fundamental psychobiological impulses that underlie the pan-human impulse to make some ordinary experiences extra-ordinary as a way of showing their vital importance. Using the proto-aesthetic operations described above, making special remains a fundamental activity or behavior that continues to imbue all later examples of the arts.

Some scholars have called my artification hypothesis "formalist"[36]. I agree that it is less concerned with content or context than with the means (the aesthetic operations described above) of imbuing particular content with significance. Researchers in neuroscience have identified biologically-important perceptual "primitives" – inherent propensities and biases of the visual system (e.g., dots, straight lines, edges, contours, geometric shapes) that attract attention, give cognitive satisfaction, and can be "exploited" by artifiers[37]. I suggest that the five proto-aesthetic operations of artification can be thought of as "*aesthetic* primitives," with neural substrates and correlates, in that they also immediately attract attention, sustain interest, and create and mold emotion in sensory or cognitive modalities.

My "bottom-up" view of the evolution of the human propensity to make important things special may or may not seem sufficient to the purposes of some critics and theorists of the arts today, yet many of the questions that I have been concerned with are ones that have been considered by aesthetic philosophers. Philosophers of art should have an interest, at least generally, in whether or not we can identify art or a precursor of art in the evolution of our species, thereby establishing the arts as integral to human lives and humans as artifying creatures, a remarkable attribute of our species that is finally being scientifically investigated. Classical philosophical questions about the ontology and epistemology of art are being reformulated by cognitive aesthetics and archaeology. To these approaches, the artification hypothesis adds an emphasis on preverbal, presymbolic, panccultural, cross-modal, supra-modal, participative, affective, and affinitive aspects of aesthetic cognition and behavior, thereby providing further directions to studies in contemporary philosophical aesthetics.

[36] Davies 2012: 131; Steven Brown, personal communication.

[37] Hodgson 2006; see also Verpooten and Nelissen 2012.

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