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The Human Value of Art: Art as an Evolutionary Trait

Looking at the origin of the human species from an evolutionary perspective allows one to see human traits as having been selected for the advantages they provide to the species population. Evolutionary theory emphasizes the functional qualities of adaptive traits. Using this theory towards understanding the human value of art suggests that Art enabled our ancestors to survive in a harsh and unpredictable environment. This paper explores the application of evolutionary theory to the usefulness of art in human populations. This paper's findings suggest that the human capacity for art creation and reception relieved anxiety, maintained group membership, and contributed to the enculturation of new members- all of which aided in the survival of the human species.

Human-only Traits

The emergence of the human species is characterized by at least four anatomical traits: 1) habitual bipedalism, 2) the esophageal configuration for the articulation of speech, 3) prehensile thumb for precise manual dexterity, 4) large brain capacity in relation to body size (Haviland, Prins, Walrath, and McBride 2005; Nelson and Jurmain 1998). These traits distinguish Homo sapiens from other mammals and primates. Although not directly conducive to the development of art creativity, habitual bipedalism certainly enabled early human populations to secure food and intimidate dangerous predators. The articulation of speech and precise manual dexterity do connect to the emergence of art, but the anatomical trait of greatest impact on art development is the large brain.

A large brain, with its complex system of neurophysiological processes (Onians 2003:262), enable our ancestors to integrate bodies of knowledge. The ability to learn information in one context and apply the same information in a different context proved beneficial to our human ancestors when they sought after food, shelter, and protection. A large brain also enabled early humans to conceptualize a sense of time and duration. Individual homo sapiens that could think long-term and beyond their immediate needs were able to prepare. This neurophysiological capability to prepare behooved populations during changing weather patterns, animal migration patterns, and resource finds (Bataille 1953). Thirdly, a large brain could produce introspective thoughts. Ideas about the self developed and contributed to Homo sapiens understanding of their position and relation to the environment and other animals. Indeed, one art historian suggested that cave paintings, like those of Lascaux, signify early humans' view that animals like bison and deer were sacred and more powerful than people. Painting such poetic animal images indicate humans' perceived separation between themselves and beast with humans being not sacred and less powerful than beast. Accordingly, humans through their image making introspectively saw themselves as different from animals and therefore stopped being animals (Bataille 1953).

These three thought processes, the integration of bodies of knowledge, preparation, and introspective understanding of self and environment, are effects of a highly evolved brain. As individuals with such capacity for complex thinking survived over individuals with less capacity, they reproduced and passed on this thinking ability to their offspring. Such brain activity makes ready the origins of art.

Articulation of speech involves making signs and assigning them to meanings. This activity is only possible with a highly evolved and complex brain. However, the articulation of speech also influenced the brain to connect signs and meanings and to store large databases of signs and their connected meanings. Moreover, articulation of speech exercised the transfer of thoughts into communicative elements- putting ideas into words. The process of sign manufacture and meaning integration are the basis for art creativity.

Precise manual dexterity as an adaptive trait enabled early humans to manipulate found objects into tools. Like the other four distinguishing anatomical traits of Homo sapiens, manual dexterity increased gradually over thousands of years. As tool making skills developed, the human body developed thinner fingers, highly sensitized nerve endings on the fingertips, and agility between the thumb and all four fingers to grasp and hold objects. This trait provided the range of motion necessary to manipulate objects and use them to create art objects and images.

Biologically, the human anatomy evolved so that culture emerged. Based in the brain capacity and expressed in speech and tool making, ancestral Homo sapiens gave way to what we now call man-made and that which is perceived as opposite to nature. Culture, defined as a “complex whole which includes knowledge, belief, art, morals, laws, custom, and any other capabilities and habits acquired by man as a member of society,” is nature transformed by people (Tylor 1871). Whether a belief, a behavior, or an object, culture is the effect of human interaction with and in an environmental context. Making stone tools is an early example of cultural impact on a natural object. In order to make the stone tool, Homo habilis (Tool maker) integrated bodies of knowledge about stones, prepared for a future food securing activity, and used precise manual dexterity to manipulate the stone into a sharp and effective tool (Haviland, et al 2005). Additionally, the tool maker added elements that decorated the tool; elements that are not clearly connected to the functional quality of the tool itself (Dissanayake 2001).

Thus, there is one other trait that distinguishes humans from animals: art creativity. Only humans create objects of sensibility. Only humans expand on the usefulness and functionality of objects by added elements of design (Bataille 1953). Only humans invest the effort and time to do so. Transforming nature into cultural beliefs, behaviors, and objects was not enough for early human ancestors. They elaborated and make ordinary things extraordinary and special by adding design elements (Dissanayake 2001).

What is Art?

In this paper, art is perceived as something people do (Dissanayake 2003). Art is a process that has a root in every human being. Art is behavioral and sometimes results in artifacts. Art is elaboration of any object (painting, sculpture), behavior (theater, dancing), and belief (storytelling, poetry) (Dissanayake 2000:130, 134). The capacity for art is inherent in each person and did not spontaneous exist in the repertoire of human traits (Dissanayake 2003:248) . Art, from an evolutionary perspective, has been selected for as a human trait over thousands

of years because it proved to be beneficial to those individuals who possessed it, expressed it, and passed it on to their offspring (Dissanayake 2003: 254). It is important to note that with an ever-flowing gene pool and the relatively short evolutionary history of Homo sapiens, all humans present on earth possess 99.9% of the same genes. Therefore, each human possess genes for the capacity of art creativity.

However, an evolutionary perspective claims that traits evolve because they are efficiently more advantageous than other possible traits. The creation of art as an elaboration of efficient beliefs, behaviors, and objects has perplexed evolutionary thinkers. The question as to why early humans would go to the trouble of creating ornamentation on objects of utilitarian use requires a functional answer to satisfy such evolutionary approaches.

How did/does art help our species survive?

Anthropologist Ellen Dissanayake offers functional answers to why humans value art and to how art contributed to the survival of our species. Previous reasons given for the emergence of art usually allude to male reproductive competition. This reasoning suggests a higher reproductive success of males who exhibit a better mastery of art skills. This suggestion parallels evolutionary arguments for the vibrant colors found on male specimens of many bird species. Brightly colored males attract females and successfully mate. Male Homo sapiens with more artistic flare, as the argument goes, attracted more females and ensured their reproductive succession. However, this argument neglects the artistic creativity of females as well as humans of all ages, including non-reproductive years (Dissanayake 2001).

How does art help our species survive? It relieves anxiety about the uncertainties present in the human condition, especially uncertainties that early humans encountered when securing food, shelter, and protection (Dissanayake 1992; 2001). It reduces damaging physiological effects of stress, and can be considered “any effort to deal with uncertainties” in the world (Dissanayake 1992). Art enables the expression of the calming belief that all will end well, either through divine assistance or through evoking one’s self power. Art also helps to direct and ease tensions, frustrations, and discontent and very generally result in happier and more positive emotions in people (Hatcher1985:113). Evidence for the benefit of art for reducing physiological stress in human groups comes from the observation by archaeologists of increased art production within human populations during environmental stress.

Art also contributes to the survival of our species by maintaining group membership—especially through aesthetic pleasure (Hatcher 1985:113). Group art, whether through art production or reception, causes a feeling of togetherness and community bond (Hatcher 1985:113). Art reinforces “like-mindedness and one-heartedness” of a group (Dissanayake 2001). Art activities performed by a group promote group solidarity and influences the individual to prioritize the interests of the group over his/her self-interests. Grouping and banding together is also an adaptive trait found in other animal species that enhances the group’s survival while mutually benefitting the individual’s well-being.

Art helps to enculturate new members into the group. Art conveys cultural values and right behaviors to learning members. People can express and learn ideas of convention and acceptability through art, especially public art. Art creativity helps to define boundaries of normal and appropriate ways of being within a group (Hatcher 1985).

Origins of Art- Where did the urge to elaborate come from?

An evolutionary perspective towards human development is often concerned with the origins of things. Although it is impossible to pinpoint the exact moment of the first artistic expression, some anthropologists have hypothesized just where the urge to elaborate comes from. Many might argue that the capacity for art stems from male competitiveness, as previously stated. However, this denies artistic participation in females. A more convincing argument encourages one to examine the communicative exchanges between mother and child.

Overhearing the cooing and murmuring between babies and adults, one is witness to the intensifying and simplifying of human communication. Baby talk elaborates adult talk in that it makes the mundane words and messages into very special moments of communication between baby and adult. Just imagine the excited tones a mother might use when prompting her child to smile. Such interaction of elaborated speech prepares the individual baby to be a member of the group by helping him/her to associate symbols with meanings. Additionally, baby talk develops an individual's intellect, social skills, and neurophysical processes (Dissanayake 2001).

This sense of engagement between a mother and her child predisposes humans to a sense of belonging to the group. In other words, as a parent prepares the child and teaches him/her skills necessary to act in conformity to the group, the parent stimulates and guides a relationship of commitment and dependence. This parent/child relationship thus serves as a model for relationships with the group.

As a result of these stimulating relationships between parent and child, humans had evolved sensitivities to the emotional qualities and "compelling features" within mother/child interactions. These interactions are aesthetic in that they repeat, exaggerate, change dynamics (louder, faster, larger), embellish, and satisfy. The arts are elaborated forms of mother/child interactions and have evolved into large scale, public ways of efficiently "arousing interest, attracting attention,...conveying culturally important messages..., and...reinforcing appropriate attitudes and behaviors within the group" (Dissanayake 2001:11). The arts, as elaborated forms of mother/child interactions, are successfully received because the viewers possess highly developed and evolved sensitivities to them.

Mechanics of the Earliest Art

Evidence of art production dates to 250,000 years ago with crude carvings of figurines, manipulated clay, and some decoration on tools (Haviland, et al, 2005:246; Dissanayake 2001). A survey of documented rock art reveals a plethora of images engraved and painted. Hands, horses, bison, deer, elk, and human figures are just a few of subjects catalogued. Figurative pictures of animals, humans, and abstract geometric forms placed on rock walls date to 45,000 years ago in Australia and 32,000 years in Europe (Haviland, et al, 2005:248). Rock art, as this form of art expression is referred to, was created in a variety of ways.

Perhaps initial forms of cave art involved finger tracing onto and scratches and cuts into the rock walls, ceilings, and floors of caves. Early humans placed many pictures on cave walls with a limited palette of colors. Because charcoal and ground ochre were the primary mediums, colors were initially restricted to black and red. However, other colors were eventually derived from minerals and plant resources (Whitley 2005:4).

Early artists also utilized a stencil technique. Many hand prints were made by applying pigment over the hand to create a negative outline. Such a hand print was produced by blowing pigment through a tube (Whitley 2005: 9) or by simply spitting the pigment repetitively and evenly over the hand (NOVA 1994). In addition to hand prints, artists used this technique to create landscapes of animals, as is the explanation for paintings at Pech-Merle in France (Whitley 2005:9). Other tools in early artists' kit probably included brushes fashioned from animal tails and bounded plant material, as well as whatever found objects proved useful (Whitley 2005: 6).

Why did early artists create?

This question focuses the human value of art at the location of the individual or specific group producing the art. Different than the meta-evolutionary benefit of art, this question seeks to define the motivational causes for individuals to be artistic. There is much debate among the theories that seek to explain why early artists created.

Nineteenth Century rock art theorists suggested that simple ornamentation was added to tools and dwellings for entertainment qualities alone. This is a classic art for art's sake perspective. However, this explanation assumes that early artists lived effortlessly with plenty of resources and lots of free time to play and produce art (Clottes and Lewis-Williams 1998). It does not answer sufficiently why artists created images in deep caverns or in hard-to-get-to locations that required lots of extra effort to get to. This explanation also portrays early artists as childlike and ignores the human complexity that accompanied group structure and group dynamics inherent in early human society. Unfortunately, this weak perspective has been widespread and contributed to an oversimplification of rock art interpretation and understanding well into the 1960s (Lewis-Williams and Dowson 2001).

A second explanation is based on the perceived relationship between an image and the subject of the image. Labeled sympathetic magic, the basic premise is that whoever produced or possessed a representation of a living being had power over that subject (Clottes and Lewis-Williams 1998). With this perspective, images of animals are believed to have been created to affirm power of the image creator over the animal spirit and to assure a successful hunt (Bataille 1953). Such human cognitive thinking, that of calling upon forces beyond daily life to influence events, is a human universal supported by ethnographic research. However, this particular explanation falls short because of the large percentage of images that do not contain signs of control (like arrows that fall short of a horse's body). Moreover, this sympathetic magic explanation focuses on the image itself, rather than on the process used to make it, which may have held richer meaning for early humans (Clottes and Lewis-Williams 1998).

A third explanation suggests that rock art served to record a religious vision seen by the artist while in trance. In this explanation, the process of art production is the locus of meaning instead of the image. Archaeologists exploring rock art noticed patterns in the context and placement of images in caves and on particular cave features. Thus, researchers came to see context and placement as meaningful and deliberate. Moreover, images considered as a part of an ensemble instead of isolated pictures yielded patterns that connected to shamanistic ways of thinking about the cosmos (Clottes and Lewis-Williams 1998). Religious beliefs and social practices are both conveyed in ensembles of images as this explanation takes into account the diversity of symbolism and meaning present in such art production. Using contemporary

ethnographic data on shamanism, this explanation incorporates a neurophysiological process of an artist producing images based on visions had while in a trance state (Lewis-Williams and Dowson 2001). Because all humans have the same neurological wiring, there are similarities in visions and images created by reactions of brains in altered states of consciousness. Indeed, scientists have delineated stages of altered state of consciousness that are directly associated with specific imagery patterns. Noting how similar rock art images were to the patterns produced during altered states of consciousness led archaeologists to see cave art as a ritualized explanation of the spirit and natural world (Whitley 2005:110-115). Groups who tended to make things special through ritual would have been more unified and would have survived better than groups that did not (Dissanayake 1992). However, researchers are careful to assume that the artist recreated images as dictated by the vision. Rather images were selected, manipulated, and even ignored over others. Such decisions were filtered by culture and present now to researchers a logic that permeated early humans thought, behavior, and society.

Early art production may actually be a result of a combination of motivations including expression of experience, ritual, and world view of the painter (whether in trance or not), communicating these systems of cognition to cultural members as well as communicating bodies of knowledge to non-immediate group members, and conveying ideas about social order and social roles. What is certain is that rock art is just as symbolic and complicated as that of modern art and lends itself to a spectrum of interpretation. For example, images of hand stencils may be interpreted to claim territory as if to say, "I was here." Such handprints might also have been symbolic of the bond felt during trancing between the artist and the spirit world just behind the rock wall (Clottes and Lewis-Williams 1998:33).

In the body of rock art lies elements that indicate large systems of belief, knowledge, and experience. Because rock art is symbolic, it contains a consistent and coherent logic. Cracking this code yields an understanding to the functions that rock art served to its producers and viewers (Whitley 2005: 81). As ethnographic research on art produced by the San, a hunting and gathering cultural group in southern Africa, indicates, rock art was part of a communication system that transcended immediacy in time and in location so that cultural aspects better suited for survival in harsh environments could be passed on (Biesele 1983).

The arts today

Because thousands of years have pass since the adaptation of art capacity in humans, cultural views towards the uses of art have expanded. Ethnographic information presents a view of art as varying cross-culturally. Art can be differently perceived in terms of function and meaning.

For example, Aborigine culture perceives art as a social activity influenced by the local environment and related to ancestors, dreaming, and mapping the landscape. In this culture, the art object is not the most important entity. Connecting to spirituality culturally construed in the physical landscape and in ancestral relationships leads to a process of mapping or representing the subconsciousness. Tapping into this spirituality along with other group members and understanding one's cultural worldview is the objective. Indeed, Aboriginal art images are often temporary and are created in the sandy soil or on group members' bodies.

Only since the incorporation of acrylic paint in the early twentieth century have Aboriginal imagery been sustained to be gallery-ized (Myers 1995).

For the Igbo of Nigeria, exhibiting pleasing adornment is a means of gaining power and provides a fascinating perspective of art as a strategy to enhance one's social status (Egboh 2001). For Western cultural members, art is seen as an act of an individual that either expresses the individual's personal aesthetic tastes within culturally defined boundaries or expresses the individual's rebellion against cultural norms. In this, our own society, the product of art creativity is important. The making, selling, and collecting of the final art object makes visible our cultural values of individual freedom and our social structures of democracy and capitalism (Staniszewski 1995).

Conclusion

This paper has explored the human value of art by positing art creation in an evolutionary perspective. Such a view of art shows how a capacity for art creativity aided in the survival of our species by minimizing physiological stress through pleasure and coping with uncertainties as well as maintaining group solidarity through ritualized enculturation. Thus, art is an adaptive trait for which a capacity is inherent in every human being. However, over long periods of cultural change, the arts have developed according to specific cultural environments and now result in a variety of functions and conceptualizations of just what art and aesthetics are.

In our society, the arts are produced by specialists who have undergone extended and often formal training. However, each of us exerts extra effort to make occasions or things in our surrounding special and not ordinary (Dissanayake 2001:12). Our modern society is mostly engaged in art activities like "rock concerts, blockbuster films, television, athletic contests, and advertisements. These are the arts in which our communal creativity and finances are lavished upon" (Dissanayake 2001:13). Thus, these activities represent our own human value of art as well as displaying symbolically cultural values, beliefs, and traditions. Perhaps more importantly, these art activities function much like early human art in that they present opportunities to alleviate physiological stress, to enhance pleasure, to maintain group identity and membership, and to enculturate what our culture deems normal and acceptable. Even in modern times, the capacity for art elaboration, inherent in every person, serves as an advantage for our society's survival.

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