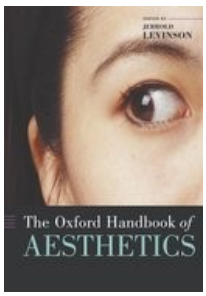

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CHAPTER

41 Aesthetics and Evolutionary Psychology

Denis Dutton

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Abstract

The applications of the science of psychology to our understanding of the origins and nature of art is not a recent phenomenon; in fact, it is as old as the Greeks. Plato wrote of art not only from the standpoint of metaphysics, but also in terms of the psychic, especially emotional, dangers that art posed to individuals and society. It was Plato's psychology of art that resulted in his famous requirements in *The Republic* for social control of the forms and contents of art. Aristotle, on the other hand, approached the arts as philosopher more comfortably at home in experiencing the arts; his writings are to that extent more dispassionately descriptive of the psychological features he viewed as universal in what we would call 'aesthetic experience'. Although Plato and Aristotle both described the arts in terms of generalizations implicitly applicable to all cultures, it was Aristotle who most self-consciously tied his art theory to a general psychology.

Keywords: evolutionary psychology, aesthetic experience, metaphysics, nature of art, Plato, general psychology

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1. HISTORICAL PRECEDENTS

THE applications of the science of psychology to our understanding of the origins and nature of art is not a recent phenomenon; in fact, it is as old as the Greeks. Plato wrote of art not only from the standpoint of metaphysics, but also in terms of the psychic, especially emotional, dangers that art posed to individuals and society. It was Plato's psychology of art that resulted in his famous requirements in *The Republic* for social control of the forms and contents of art. Aristotle, on the other hand, approached the arts as philosopher more comfortably at home in experiencing the arts; his writings are to that extent more dispassionately descriptive of the psychological features he viewed as universal in what we would call 'aesthetic experience'. Although Plato and Aristotle both described the arts in terms of generalizations implicitly applicable to all cultures, it was Aristotle who most self-consciously tied his art theory to a general psychology.

Aristotle explicitly argued that a stable, unchanging human psychological nature would dictate that the arts would possess specifiable, unchanging features. In a seldom noticed aside in *The Politics*, Aristotle observes that 'practically everything has been discovered on many occasions—or rather an infinity of occasions—in
p. 694 the ↳ course of the ages; for necessity may be supposed to have taught men the inventions that were absolutely required, and when these were provided, it was natural that other things which would adorn or enrich life should grow up by degrees' (1329*b*25). We can imagine what Aristotle might have had in mind: the knife would first appear as a stone flake, and later would be shaped into an adze. It would require a roughened handle to enable a better grip; this would be attained through crosshatched incising that would come to be a source of visual delight in itself, and lead to further decoration, eventually to decorated metal knives. This kind of natural progression for Aristotle means that in the arts there will be the invention of visual representations, drama, storytelling, and music wherever human societies are founded and flourish, and that these will develop along roughly inevitable lines, depending on their individual natures (Aristotle 1920).

Aristotle's *Poetics* can be understood as a catalogue of the features that he expects the arts, primarily drama and fiction, to possess precisely because they are created by and for human beings with a stable intellectual, imaginative, and emotional nature. For example, he argues that main themes of tragedy will involve the disruption of normal family relations, such as we see in *Oedipus* and *Medea*. His unspoken implication is that this fascination with stresses and ruptures of families represents a permanent feature of *human interest*, and not merely a local manifestation of Greek cultural concerns.

In the eighteenth century David Hume argued a similar thesis in his 1757 essay, 'Of the Standard of Taste' (Hume 1987). He believed that 'general principles of taste are uniform in human nature'. If human nature were not uniform across historic time and across cultures, we could not enjoy the same works of art as the ancients. Hume's famous criterion of value in art, the 'test of time', presupposes the existence of a constant common human nature. Overlaid on the history of art and literature will be all of the local contextual features that make it difficult to apprehend the values of art outside of its originating culture. Hume nevertheless believed in an unchanging core of interests and sentiments that made it possible to reach outside of one's own culture; this explains why the 'same Homer who pleased at Athens and Rome two thousand years ago, is still admired at Paris and London'.

Hume's notion that there is uniform human nature was a point of agreement with his contemporary, Immanuel Kant, who used the idea as a foundation for his theory of beauty in the *Critique of Judgment* (Kant 1987). Although he thought that all 'judgments of taste', as he called them, were subjective in their origins, since the subjects who make them, *Homo sapiens*, possess a *sensus communis*, a shared human sense, discussion and agreement with regard to art and aesthetic experience was also possible. If human beings are

able to set aside their personal, idiosyncratic likes and desires, achieving what Kant called disinterested contemplation, they will tend towards agreement about the value and meaning of works of art.

In the twentieth century, particularly its second half, art theorists tended to shy away from theories that
p. 695 imply a fixed view of human nature, preferring instead ↳ so-called historicist accounts that interpret art in terms of the historical and cultural context of its production (Barkow *et al.* 1992). This widely held view of human intelligence regarded the mind as a content-free, so-called blank slate: human beings possessed a general capacity to learn all the divergent skills and values that different cultures can teach. At the same time that this theory of the mind held sway in psychology, mid-twentieth-century aesthetics tended to take a view of art consistent with it. Aesthetic values were regarded as whatever culture taught was aesthetically valuable; aesthetic values and meanings were considered without residue constructed by culture, and works of art were both created and appreciated within the norms and conventions of culture. 'Cultural constructionism' in aesthetics entailed a relativism of aesthetic values, and a consequent denial of the kind of aesthetic universalism Aristotle or Hume would have advocated. Art was considered purely a determined product of culture, and there were as many kinds of art and artistic values as there were cultures.

2. EVOLUTIONARY PSYCHOLOGY: NATURAL SELECTION

Recently, however, an interest in cross-cultural, universal features of art has been revived with growing developments in evolutionary psychology, which seeks to understand the psychological and cultural life of human beings in terms of their genetic inheritance as an evolved species. All animal species have evolved to increase fitness for survival and reproduction. Every physical aspect of the human organism is open to the influences of evolution, and all will be in respects explained by it. Whether we consider the nature and complexities of our immune system, the functions of the liver, the characteristics of haemoglobin, or our upright walk and binocular vision, it is natural selection working on the evolution of us and our mammalian and humanoid ancestors that has produced modern *Homo sapiens*.

Evolutionary psychology extends the findings of Darwinian theory to the working of the human psyche. In particular, it treats our mental capacities, inclinations, and desires as adaptations developed in the last two million years—since the Pleistocene era (Barkow *et al.* 1992). These features of the mind were fully developed in their modern form by about 10,000 years ago, the beginning of the Holocene, the period that saw the introduction of agriculture and cities, and the development of writing and metal tools. Since then, the human brain has not significantly changed in its genetic character (Mithen 1996). Rather than regarding the mind at birth as a content-free, blank slate on which are inscribed the skills and values of the culture of
p. 696 an individual, evolutionary psychology posits the existence of innate interests, ↳ capacities, and tastes, laid down through processes of natural and sexual selection. Evolutionary psychology replaces the blank slate as a metaphor for mind with the Swiss army knife: the mind is a set of tools and capacities specifically adapted to important tasks and interests. These acquisitions are adaptations to life in the small hunter-gatherer bands in which our ancestors lived for 100,000 generations before civilization as we now understand it began. They include a long list of universal features of the Stone Age, hunter-gatherer mind: for example language use according to syntactic rules; kinship systems with incest avoidance; phobias, e.g. fear of snakes and spiders; child-nurturing interests; nepotism, the favouring of blood relations; a sense of justice, fairness, and obligations associated with emotions of anger and revenge; the capacity to make and use hand tools; status and rank ordering in human relations; a sense of food purity and contamination; and so forth (Pinker 1997). Some of these features are uniform across the human species; others are statistically related to sex; for instance, females are more inclined towards an interest in child nurturing and have a greater ability to remember details in visual experience, while males are more physically aggressive, and better able to determine directionality and engage in 'map reading'.

Two features of art immediately link it with these psychological factors. First, artforms are found everywhere cross-culturally. There exists no known human culture that does not display some form of expressive making that European cultures would identify as artistic (Dissanayake 1995). This does not mean that all cultures have all artforms: the Japanese tea ceremony, widely regarded as an art, does not have any close analogue in the West; the Sepik River people of New Guinea are passionate carvers, and stand in sharp contrast with their fellow New Guineans from that Highlands, who direct their energies into body decoration and the production of fighting shields, but who carve very little (Dutton 2000). The Dinka of East Africa have almost no visual art, but have a highly developed poetry, along with a connoisseur's fascination with the forms, colours, and patterns of the natural markings on the cattle they depend on for their livelihoods. That these and other cultures have practices and products that we would recognize as artistic begs for an account from evolutionary psychology. The very universality of art strongly suggests that it is connected with ancient psychological adaptations.

The second feature that marks art as a focus of psychological interest is that it provides people with pleasure and emotions, often of an intense kind. It is a postulate of evolutionary psychology that pleasures, pains, and emotion—including experiences of attraction, revulsion, awe, fear, love, respect, loathing—have adaptive relevance. The pleasure of eating sweet and fatty foods is a Pleistocene adaptation for nutrition and survival as much as the pleasure of sex is an adaptation for procreation: ancestors who enjoyed eating and sex were in fact more likely to have descendants and to pass those traits on to them. Conversely with revulsion. One of the most dangerously poisonous substances for potential human consumption would be
p. 697 bacteria-laden rotting meat; it is not an evolutionary accident that rotting meat is ↳ one of the most repellent of all smells to human beings. The range of items in experience for which there may be some kind of Pleistocene inheritance includes our emotional dispositions towards other human beings, their comportment, expressions, and behaviour; our responses to the environment, including animals and plants, the dark of night, and to natural landscapes; our interest in creating and listening to narratives with identifiable themes, including imaginative dangers and the overcoming of romantic obstacles; our enjoyment of problem-solving; our liking for communal activity; and our appreciation of displays of skill and virtuosity.

3. ENVIRONMENTAL PREFERENCES

One of the most important considerations in the survival of any organism is habitat selection. Until the development of cities 10,000 years ago, human life was mostly nomadic. Finding desirable conditions for survival, particularly with an eye towards potential food and predators, would have selectively affected the human response to landscape—the capacity of landscape types to evoke positive emotions, rejection, inquisitiveness, and a desire to explore, or a general sense of comfort. Responses to landscape types have been tested in an experiment in which standardized photographs of landscape types were shown to people of different ages and in different countries: deciduous forest, tropical forest, open savannah with trees, coniferous forest, and desert. Among adults, no category stood out as preferred (except that the desert landscape fell slightly below the preference rating of the others). However, when the experiment was applied to young children, it was found that they showed a marked preference for savannahs with trees—exactly the East African landscape where much early human evolution took place (Orians and Heerwagen 1992). Beyond a liking for savannahs, there is a general preference for landscapes with water; a variety of open and wooded space (indicating places to hide and places for game to hide); trees that fork near the ground (provide escape possibilities) with fruiting potential a metre or two from the ground; vistas that recede in the distance, including a path or river that bends out of view but invites exploration; the direct presence or implication of game animals; and variegated cloud patterns. The savannah environment is in fact a singularly food-rich environment (calculated in terms of kilograms of protein per square kilometre), and highly desirable for a hunter-gatherer way of life. Not surprisingly, these are the very elements we see repeated endlessly in both calendar art and in the design of public parks worldwide.

The idea of a pervasive Pleistocene taste in landscape received support from an unusual project undertaken by two Russian émigré artists, Vitaly Komar and Alexander Melamid, in 1993. They hired a professional
p. 698 polling organization to conduct ↳ a broad survey of art preferences of people living in ten countries in Asia, Africa, Europe, and the Americas (Wypijewski 1997). Blue turned out to be the favourite colour worldwide, with green in second place. Respondents expressed a liking for realistic representative paintings. Preferred elements included water, trees and other plants, human beings (with a preference for women and children, and also for historical figures, such as Jomo Kenyatta or Sun Yat-sen), and animals, especially large mammals, both wild and domestic. Using the statistical preferences as a guide, Komar and Melamid then produced a favourite painting for each country. Their intent was clearly ironic, as the painting humorously mixed completely incompatible elements—*America's Most Wanted*, as it was titled, presented a Hudson River School scene, with George Washington standing beside a lake in which a large hippo is bellowing. But there was also a serious side to the project; for the paintings, though created from the choices of different cultures, tended to share a remarkably similar set of preferences—they looked like ordinary European landscape calendar art, both photographic and painted. In an attempt to explain this odd cross-cultural uniformity—which had East Africans choosing the lush calendar scenes over landscapes they might be familiar with in their own daily lives—Arthur Danto claimed that the Komar-Melamid paintings demonstrate the power of the international calendar industry to influence taste away from indigenous values and towards European conventions. While he admits that the Kenyans preferred scenes that looked more like upper New York State than like Kenya, the polling work also indicated that most Kenyans had calendars in their homes (Danto, in Wypijewski 1997). What this does not acknowledge is the question of why calendars worldwide have the same landscape themes—the very themes that evolutionary psychology would predict. The real question is 'Why are calendars so uniform in their content worldwide?5—a uniformity that includes other, non-landscape, objects of attention, such as babies, pretty girls, children, and animals. It is the calendar industry that has, by meeting market demands, discovered a Pleistocene taste in outdoor scenes.

4. PROBLEM-SOLVING AND STORY-TELLING

If survival in life is a matter of dealing with an often inhospitable physical world, and dealing with members of our own species, both friendly and unfriendly, there would be a general benefit to be derived from imaginatively exercising the mind in order to prepare it for its next challenge. Puzzle-solving of all kinds,
p. 699 thinking through imagined alternative strategies to meet difficulties—these are at the heart ↳ of what the arts allow us to do. In fictional narratives, we meet a far greater variety of obstacles, along with potential solutions, than we ever could in a single life. As Stephen Pinker has argued, 'Life has even more moves than chess. People are always, to some extent, in conflict, and their moves and countermoves multiply out to an unimaginably vast set of interactions' (Pinker 1997). Story-telling, on this model, is a way of running multiple, relatively cost-free experiments with life in order to see, in the imagination, where courses of action may lead. Although narrative can deal with the challenges of the natural world, its usual home is, as Aristotle also understood, in the realm of human relations. As Pinker puts it, 'Parents, offspring, and siblings, because of their partial genetic overlap, have both common and competing interests, and any deed that one party directs toward another may be selfless, selfish, or a mixture of the two'. Add to this the complications of dealing with lovers, spouses, friends, and strangers, and you have the basic material for most of the history of literature, from the *Epic of Gilgamesh* right up to drugstore bodice-rippers (Storey 1996).

Joseph Carroll agrees with this assessment of the adaptive advantages of fictional narrative, but stresses that imaginative story-telling does more than give explicit made-up instructions for possible future contingencies: 'It contributes to personal and social development and to the capacity for responding flexibly and creatively to complex and changing circumstances' (Carroll 1995). None of us may ever find ourselves stranded alone on an island, Carroll observes, but in reading *Robinson Crusoe* readers 'register the qualities of character through which Crusoe sustains himself in solitude, and they integrate these perceptions with the repertory of their psychological potentialities'. In this way, fiction 'is a medium for cultivating our innate and socially adaptive capacity for entering mentally into the experience of other people' (see also Currie 1998).

5. EVOLUTIONARY PSYCHOLOGY: SEXUAL SELECTION

While the Darwinian mechanism of natural selection has proved to be one of the most versatile and powerful explanatory ideas in all of science, there is another, lesser-known, side of Darwinism: sexual selection. The most famous example of sexual selection is the peacock's tail. This huge display, far from enhancing survival in the wild, makes peacocks more prone to predation. The tails are heavy, requiring much energy to grow and to drag around. This seems to be nature's point: simply being able to manage with a tail like that functions as an advertisement to peahens: 'Look at what a strong, healthy, fit peacock I am.' For
p. 700 discriminating peahens, the ↳ tail is a fitness indicator, and they will choose to mate with peacocks who display the grandest tails (Cronin 1991; Zahavi and Zahavi 1997).

Fundamental to sexual selection in the animal kingdom is female choice, as the typical pattern for most species has males displaying strength, cleverness, and general genetic fitness in order to invite female participation in producing the next generation. With the human animal, however, there is a greater mutuality of choice. Geoffrey Miller holds not only that sexual selection is the source of the traits we tend to find the most endearingly human—qualities of character, talent, and demeanour—but that artistic creativity and enjoyment came into being in the Pleistocene in the process of women and men choosing sexual partners.

The notion that we can alter ourselves through sexual selection is well accepted: there are striking examples of human sexual selection at work even in recent, historic times. The Wodaabe of Nigeria and Niger are beloved by travel photographers because of their geere wol festivals, where young men make themselves up, in ways that look feminine to Europeans, and dance vigorously to display endurance and health. Women then choose their favourites, preferring the tallest men with the biggest eyes, whitest teeth, and straightest noses. Over generations, the Wodaabe have grown taller than neighbouring tribes, with whiter teeth, straighter noses, etc. If it is possible to observe this kind of change in a few centuries, it is clearly possible to remake or refine *Homo sapiens* in tens of thousands of generations. As with natural selection, just slight choice bias over long time periods could radically reform aspects of humanity, giving us species features of personality and character that we have in effect created for ourselves. Our ancestors exercised their tastes for 'warm, witty, creative, intelligent, generous companions' as mates, and this shows itself both in the constitution of our present tastes and traits, and in our tendency to create and appreciate art (Miller 2000).

It is sexual selection, therefore, that is plausibly responsible for the astonishingly large human brain, an organ whose peculiar capacities wildly exceed survival needs on the African savannahs. The human brain makes possible a mind that is uniquely good at a long list of features that are found in all cultures but are difficult to explain in terms of survival benefits: 'humor, story-telling, gossip, art, music, self-consciousness, ornate language, imaginative ideologies, religion, morality' (Miller 2000). From the standpoint of sexual selection, the mind is best seen as a gaudy, over-powered home entertainment system, evolved to help our stone-age ancestors to attract, amuse, and bed each other.

As a telling example of the human self-created overabundance of mental capacity, consider vocabulary. Nonhuman primates have up to twenty distinct calls. The average human knows perhaps 60,000 words, learned at an average often to twenty a day up to age 18. As 98 per cent of daily speech uses only about 4,000 words, and no more than a few thousand words at most would have sufficed for survival in the Pleistocene, the excess vocabulary is well explained by sexual selection theory as a fitness and general intelligence indicator. Miller points out that the correlate ↳ between body symmetry—a well-known fitness indicator —and intelligence is only about 20 per cent. Vocabulary size, on the other hand, is more strongly indicative of intelligence, which is why it is still used both in psychological testing and more generally by people automatically to gauge how clever a person is. Such an indicator is especially telling in courtship contexts. Indeed, extravagant, poetic use of language—including a large vocabulary and syntactic virtuosity—is associated worldwide with love, being a kind of cognitive foreplay. But it is also, as Miller puts it, something that can 'give a panoramic view of someone's personality, plans, hopes, fears, and ideals'. It would therefore have been an essential item in the inventory of mate selection criteria (Miller 2000).

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The human tendency to create amusements, to elaborate and decorate everywhere in life, is therefore a result of mate choices, accounting for the evolution of dancing, body decoration, clothing, jewellery, hair styling, architecture, furniture, gardens, artefact design, images from cave paintings to calendars, creative uses of language, popular entertainments from religious pageants to TV soaps, and music of all kinds. Artistic expression in general, like vocabulary creation and verbal display, has its origins according to sexual selection in its utility as a fitness indicator: 'Applied to human art, this suggests that beauty equals difficulty and high cost. We find attractive those things that could have been produced only by people with attractive, high-fitness qualities such as health, energy, endurance, hand-eye coordination, fine motor control, intelligence, creativity, access to rare materials, the ability to learn difficult skills, and lots of free time' (Miller 2000). This view accords with a persistent intuition about art that can be traced from the Greeks to Nietzsche and Freud: art is somehow connected, at base, to sex. The mistake in traditional art theorizing has been to imagine that there must be some coded or sublimated sexual content in art. But it is not the content *per se* that is sexual: it is the display element of producing and admiring artists and their art in the first place that has grounded art in sexuality since the beginnings of the human race.

To the extent that art-making was a fitness indicator in the Pleistocene, it would have to be something that low-fitness artists would find hard to duplicate. (Were it easy to fake, then it would not be accurate as a gauge of fitness.) The influence of the Pleistocene mind on the concept of art therefore provides us with a perspective, at least at a psychological level, on some of the modern problems of philosophical aesthetic. Consider virtuosity: if music is a series of sounds in a formal relation, why should it make any difference to us that the sounds of a Paganini caprice are also difficult to realize on a violin? From the standpoint of sexual selection theory, this is no issue: virtuosity, craftsmanship, and the skilful overcoming of difficulties are intrinsic to art as display.

And difficulty isn't all: art also involves costliness. As the economist Thorstein Veblen has said, 'The marks of expensiveness come to be accepted as beautiful features of the expensive articles' (Veblen 1994). As much as this might contradict the ↳ modernist devaluing of skill and cost as central to the concept of art, it is in line with persistent popular reactions to art, showing up in the liking of skilful realistic painting, musical virtuosity, and expensive architectural details. This may not justify the philistinism of asking how much a famous museum painting is worth, but it does explain it.

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Admiration for the ability to do something difficult is not unique to art: we admire athletes, inventors, skilful orators or jugglers; and admiration of skill is at least as intrinsic to art as to any other field of human endeavour (Godlovitch 1998). Ellen Dissanayake has identified a process of 'making special' as essential to the arts as practised from the Pleistocene to the present (Dissanayake 1995). However, whereas she sees making special as something that tends to promote an intense communal sense in a hunter-gatherer group, Miller interprets the phenomenon as more connected with display: 'Indicator theory suggests that making things special means making them hard to do, so that they reveal something special about the maker'. It follows that almost anything can be made artistic by executing it in a manner that would be difficult to imitate. 'Art' as an honorific therefore 'connotes superiority, exclusiveness, and high achievement', and so would be useful as a fitness indicator.

If this is true, the vulgar gallery remark, 'My kid could paint better than that', is vindicated as valid at least from the standpoint of sexual selection, and can be expected to be heard in artistic contexts for the rest of human time: people are not going to 'learn' from their culture that skill does not count (any more than they will learn that general body symmetry does not indicate fitness). Moreover, even with the elites it is really not so different: the skill discriminations of elites are simply accomplished at a more rarefied level. Cy Twombly's chalk and blackboard works, which look to most people like children's blackboard scribbles, are viewed by highart critics as demonstrating an extremely refined artistic skill. That the works do not obviously show skill to the uninitiated simply demonstrates that they are being produced at a level that the unsophisticated cannot grasp. The esoteric nature of art, and with its status and hierarchy, thus remains in place.

As with interests and inclination determined by natural selection, the ultimate reasons for the values we inherit through sexual selection are not understandable through immediate introspection. Ripe fruits taste deliciously sweet, while rotting meat is repellent, for sound biological reasons, although we may not know through immediate experience why these things generate, respectively, pleasure and disgust. Similarly, according to sexual selection theory, we find great pleasure in pastimes such as art and music, in probing conversation with charming company, in great displays of athletic prowess, in a striking metaphor or a well told story. The fact that these activities and experiences can afford so much pleasure too requires an explanation, and so far sexual selection theory provides one of the most plausible and provocative accounts we have.

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6. THE LIMITATIONS OF EVOLUTIONARY PSYCHOLOGY

While evolutionary psychology may have a capacity to shed light on the existence of art and art's persistent qualities, it cannot pretend to explain everything we might want to know about art. In particular, there is an aspect of Kant's aesthetics that ought to be borne in mind when discussing evolutionary psychology in an aesthetic context. Kant distinguished what he called the agreeable from the beautiful. The agreeable are the straightforward subjective sensations of things that we like in direct experience: the taste of sweet, for example, or the colour blue. The pleasurable experience of such sensations, Kant held, contains no intellectual element: it is a brute feeling, often seeming to satisfy a desire (such as hunger), and as such must be carefully distinguished from the experience of the beautiful, in which the imagination combines with rational understanding in the experience of an imaginative object. For Kant, the disinterested experience that characterizes the proper regard for art is cut off from desires—the beautiful object is contemplated or observed, it is not used or consumed. Works of art, especially of fine art, therefore engage the higher faculties, and the pleasures they afford are of a different order than sexual or gustatory sensations of pleasure.

This is not a distinction many evolutionary psychologists have fully appreciated. For example, Randy Thornhill, agreeing with Donald Symons, says that 'Pleasure, like all experiences, is the product of brain mechanisms, and brain mechanisms are the products of evolution... by selection' (Thornhill 1998). They leave no room here for any distinctions between pleasures directly implicated in the satisfaction of desires and the contemplative pleasure historically identified as aesthetic and artistic.

Consider what this collapse of Kant's distinction between the agreeable and the beautiful would mean, for example, for the history of landscape painting. If we go through the European landscape painting with a checklist of evolved desirable environmental qualities, we can learn much about the content of the art works. On the other hand, if we want to know what distinguishes a popular calendar landscape from a great landscape painting by Constable, there may be nothing much to help us in a theory of Pleistocene landscape preferences. Similarly, a book such as Nancy Etcoff's *Survival of the Prettiest: The Science of Beauty* (1999), while it gives us a vast amount of information about evolved interests in what is perceived crossculturally as the beauty of the human body, can tell us much less that is new about how human beings might be portrayed in art. A painting of a desolate, arid, and uninviting landscape may be a much greater work of art than a calendar photograph of a green valley of the sort our Pleistocene ancestors might have most wanted to explore and inhabit. A painting of an old and withered woman—for example Rembrandt's portrait of his mother reading the Bible—may be a much more beautiful work of art than a lusty pinup directed at sexual interests.

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This is not to say that even in these areas evolutionary psychology might not have important things to tell us. Our responses to deep and complex works of art layer rich meanings and values that may be difficult to disentangle. In the case of the Rembrandt, respect for an aged woman, admiration of her devotion to her religion, and astonishment at the artist's technique—all have evolutionary ramifications. Even if it is never able to offer a completely satisfactory general theory of art, evolutionary psychology has the potential to contribute significantly to a philosophical understanding of art and its effects. These contributions are only beginning to be grasped and developed.

See also: Aesthetics and Cognitive Science; Beauty; Style in Art; Art and Knowledge; Environmental Aesthetics.

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