5 ARISTOTLE, BEAUTY AND MULTISENSORY IMAGERY IN MODERN TIMES

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5.1 ABSTRACT

The pursuit of the paper rests on the investigation of the ideal of beauty, arts through the senses and imagination that is related to the organization, structure, and workings of the human brain. The Theory of Mind which goes back at least to Aristotle takes as its starting point commonsense mental states, such as thoughts, beliefs, desires, perceptions and imaging.
An increasing number of psychologists, neuroscientists, and philosophers study the neural basis of the process of imagination and creativity which is focused on cognitive and systems neuroscience.
The neuroscience of aesthetics analysis offers insight into emotion, the adaptability of neural structures in different human beings, and understanding of the relation between complex neural systems ranging from those underpinning imagery to those supporting memory and identity.
Employing the tools of cognitive neuroscience traditionally addressed within humanities, and combining both our knowledge and our ways of knowing, this paper offers Aristotle's and a modern perspective on aesthetics, imagery, new vision on emotions, knowledge and human cognition.

5.2 Key words:

Beauty, Aristotle, neuroscience, imagery neural systems, cognition

An attempt to speak about the power of beauty and multisensory imagery would locate its ideal starting point in asking what is Beauty? what is Aesthetics? what is Imagery? What is this potential that arouses our emotions when we read literary work, listen to music or see wonderful paintings? This suggests that the aesthetic quality of creativity and imagination is indispensable to its identity, whereas with philosophy it is the intellectual quality of ideas propounded that is as well crucial.
The idea is that beauty applies to any kind of things, and to judge anything beautiful is always the highest form of aesthetic praise. Philosophical aesthetics has tried to rescue the concept of beauty, suggesting that it is the best general concept of "aesthetic value". It is hard to imagine a subject matter more elusive than aesthetics. It is easy enough to characterize it as the philosophy of art, or to capture greater portion of the aesthetic tradition, the philosophy of art and beauty- but once said it brings other questions over mind "What is art?" "What is creativity?"

The classical conception is that beauty consists of an arrangement of integral parts into a coherent whole, according to proportion, harmony, symmetry, and similar notions. This is a primal Western conception of beauty, and is exemplified in classical and neo-classical architecture, sculpture, literature, and music wherever they appear. Aristotle says in the Poetics that “to be beautiful, a living creature, and every whole made up of parts, must … present a certain order in its arrangement of parts” (Aristotle, volume 2, 2322).
And in the Metaphysics’, he claims “The chief forms of beauty are order and symmetry and definiteness, which the mathematical sciences demonstrate in a special degree” (Aristotle, volume 2 1705 [1078a36]). This view, as Aristotle implies, sometimes resembles a mathematical formula, such as the golden section, but it need not be thought of in such strict terms. The conception is exemplified above all in such texts as Euclid's Elements and such works of architecture as the Parthenon, and, again, by the Canon of the sculptor Polycleitus (late fifth/early fourth century BCE).
The ancient Roman architect Vitruvius gives as good a characterization of the classical conception as any, both in its complexities and, appropriately enough, in its underlying unity:
Architecture consists of Order, which in Greek is called taxis, and arrangement, which the Greeks name diathesis, and of Proportion and Symmetry and Decor and Distribution, which in Greek is called oeconomia. Order is the balanced adjustment of the details of the work separately, and as to the whole, the arrangement of the proportion with a view to a symmetrical result.
Symmetry also is the appropriate harmony arising out of the details of the work itself: it’s the correspondence of each given detail to the form of the design. As in the human body, from cubit, foot, palm, inch and other small parts come the symmetric quality of eurhythmy. (Vitruvius, 26–27).
What follows is an attempt to extrapolate from the realm of general aesthetics a more specific concept of beauty, which can be included within the realm of philosophy. Indeed, insofar as art is the object of inquiry of aesthetic and not of logic, and is the process of creativity and imagination not of thought, any talk of logic of creativity might seem misleading.

Aquinas, in a typically Aristotelian pluralist formulation, says that “There are three requirements for beauty. Firstly, integrity or perfection—for if something is impaired it is ugly. Then there is due proportion or consonance. And, clarity: whence things that are brightly colored are called beautiful” (Summa Theologica I, 39, 8). Aquinas definition of beauty is as “that which pleases merely on being perceived.” In the distinctly aesthetic domain, we find D. Diderot in the 18th c. proclaiming: “Beauty is a
term we apply to an infinitude of being; but whatever differences there may be among these beings, it must be the case either that we falsely apply the term beautiful, or that there is in all these beings a quality of which the term beauty is the sign.” But it was E. Kant who tried to develop a detailed account of beauty in his Critique of Judgment, the book that was to transform the way we conceive beauty. In case of literature, the form is not strictly perceptible. If literature may be aesthetically good (whatever point may ultimately attach to judging it so), and if “beauty” is the term for aesthetic value, then we should acknowledge that a novel or short story or a poem can be beautiful.

In the 18th c. when D. Hume, T. Reid and E. Kant were writing, beauty was a preeminent aesthetic attainment normally sharing the limelight only with the sublime and standing in opposition to the ugly.

So, we can say that an approach to literary(artistic) creation is the philosophical study of art form to the extent that we take the same attitude to it as we do to art. The notion of any aesthetic attitude is thus of central importance. It is commonly held to be a style of perception concerned neither with the information to be gained from the literary work-novel, short story, poem, play-nor with their practical uses, but rather with the qualities of the contemplative experience itself. Works of literature are human productions designed to reward this kind of attention. Aesthetics aims to define the concept of the aesthetic attitude and the work of literature. It asks to what extent works of literature should be representative, and to what extent they should express the emotions of their creators. It aims to identify the characteristic value, which we call beauty, of aesthetically satisfying works of creative literature. It considers the problem of the nature of a work of literary existence, and that of the relation between aesthetic and moral value of a literary work. (Graham G., Philosophy of the Arts: Introduction to Aesthetics, 1997)

But what is this basis on which we call some works and not others beautiful? It must be proportion, genre, style, purpose, and proper use of language. And according to E. Kant, the relevant response that is central to finding something beautiful is one of pleasure; the experience of beauty relates to pleasure.
The relationship between beauty, imagery and mental representations induced through perception has been the subject of philosophical discussion since antiquity and of vigorous scientific debate in the last century.

The debates around imagination and internal representation or imagery are like those surrounding emotion. Plato believed that literature functions primarily if not exclusively by evoking images. These images he saw as a source of danger, for in their similarity to the images of perception and to the echoes of things as they are (the ideals, which we cannot directly perceive), the images of poetry can trick us with their simulation of truth.
The evocation of images then puts poets on a par with painters, as peddlers of falsity. However, from Aristotle through the Renaissance, rhetoricians have seen the production of mental images as necessary to the evocation of emotion by artful language, and the vividness of the images the writer evokes have been understood as central to the arts of words and persuasion.

For Aristotle, painting, poetry and music (the last by extension, for poetry was generally accompanied by instruments and was itself sung) were linked because they were all imitative. Music was understood in ancient Greece to mimic human voice, and thus to mimic emotional expressions. Aristotle argued that while the tools of imitation differ in some of the arts (in painting and poetry it is color and line versus word) and are the same in others (poetry and music share sound, rhythm, and meter), both form and content ultimately work to unite the arts, because we use the arts as extensions of and tools for our understanding of the world.

Both Plato and Aristotle defined the concept of imagination as a picturing activity. For Plato, the forms that hold meaning exist in a transcendental world, completely apart (and above) the material world. In the Timeaus, Plato describes the creation of the cosmos (nature) by a divine craftsman/architect (demiurge) as a physical representation of this Ideal other-world. Art by humans, an exercise of the imagination, is therefore seen as a copy of a copy since the artist makes a copy of nature (a painting of a flower for example) that is already a copy made by the demiurge of the Ideal flower (which exists only as an idea). For Plato, these second-hand copies have the power to lead us away from pure reason (the Spiritual/Good),

and towards the illusory world of imitations (the Material/Bad). Imagination then, for Plato, turns us away from reason (the ultimate good) and towards idolatry and illusion.

Aristotle, firmly embraced the material sensory world as the source for ideas that lead to knowledge. His realist epistemology moved the discussion of imagination from the metaphysical to the psychological level and was a radical development and departure from Plato's idealist epistemology. By embedding the meaning of reality in the sensible/tangible world, rather than in a transcendental other-world, Aristotle redefines the role of imagination and the importance of the senses. The seat of the soul was in the heart for Aristotle, and the head was a cooling system for thought. Both acts brought meaning to within grasp of the sensing, imagining, thinking human.

Aristotelian philosophy explained five senses (sight, hearing, smell, taste and touch), each with their own receiving organ (eye, ear, nose, tongue and skin and a medium that conjoins them. Sensation in the form of multi-sensory impressions was required for the mind to perceive impressions of the world. Aristotle, in his treatise On Memory states, "Without an image, thinking is impossible." (14) These sensory impressions were processed by the "common sense" where the image of figure, size, number, movement and rest were generated and merged with the sensation data from each of the five senses to create an image.

The Aristotelian theory of sensation identified the head as containing three ventricles which each oversaw receiving, processing and storing of sensory information. These ventricles were depicted as three "spaces" located at the front, center and back of the head. Common sense was situated, like a filter, in the front section of the front ventricle. Once processed, these images were passed along to the larger ventricle space of phantasia or imagination that then informed the second ventricle, estimation (recognition) and finally passed the image on to the third ventricle, memory.

For Aristotle, memory, like a reservoir of stored sensations, was the main source of our images. While he tries to define, what imagination is, Aristotle finds that it is sort of a species of sensation, but special in that it has privileged contact with reason. Aristotle does conclude his discussion on the imagination in his On The Soul (429a5) by drawing attention to the etymological connection between sight and imagination: "As sight is the most highly developed sense, the name fantasia (imagination) has been formed from faoV (light) because it is not possible to see without light."

Aristotle defines the imagination as "the movement which results upon an actual sensation." In other words, it is the process by which an impression of the senses is pictured and retained before the mind, and is accordingly the basis of memory. The representative pictures which it provides form the materials of reason. Illusions and dreams are both alike due to an excitement in the organ of sense like that which would be caused by the actual presence of the sensible phenomenon.
To imagine something is to form a sort of mental representation of that thing. Imagining is typically distinguished from mental states such as perceiving, remembering and believing in that imagining S does not require (that the subject consider) S to be or have been the case, whereas the contrasting states do. It is distinguished from mental states such as desiring or anticipating in that imagining S does not require that the subject wish or expect S to be the case, whereas the contrasting states do. It is also sometimes distinguished from mental

states such as conceiving and supposing, because imagining S requires some sort of quasi-sensory or positive representation of S, whereas the contrasting states do not.
Contemporary philosophical discussions of the imagination have been primarily focused on three sets of topics. Work in philosophy of mind and philosophy of psychology has explored a cluster of issues concerning the phenomenology and cognitive architecture of imagination, examining the ways that imagination differs from and resembles other mental states both phenomenologically and functionally, and investigating the roles that imagination may play in the understanding of self and others, and in the representation of past, future and counterfactual scenarios. Work in aesthetics has focused on issues related to imaginative engagement with fictional characters and events, identifying and offering resolutions to a few (apparent) paradoxes. And work in modal epistemology has focused on the extent to which imaginability—and its cousin conceivability—can serve as guides to possibility.

An important aspect of the beauty and richness of literature is the imagery that is evoked by choice language. Mental imagery is a cognitive function that has been intensively studied by psychologists and cognitive neuroscientists. An interesting finding that has emerged from such studies by Stephen Kosslyn and others has established that imagery and perception share substantial neural processing resources. Thus, to “see in the mind’s eye” is associated with activity in the same visual regions of the brain as those active during seeing itself.
Moreover, mental imagery is not a monolithic process, nor is its use monochromatic. Imagery can occur in other sensory modalities such as hearing, touch or smell. Imagery can also support perception, in the same modality (Kosslyn) or in a different modality (Sathian). Individuals vary widely in the extent to which they rely on verbal codes, spatial imagery that registers relationships between things or their parts, and object imagery that produces detailed “mind-pictures” of things (Kozhevnikov & Blajenkova, Sathian). These individual differences in style probably reflect corresponding differences in brain networks (Kraemer). It is interesting to speculate that writers may have particularly well developed abilities not just in their use of language for abstract verbal coding, but also in their employment of choice language to skillfully evoke mental imagery, and possibly in their brain networks. Memory is defined as the permanent possession of the sensuous picture as a copy which represents the object of which it is a picture. Recollection, or the calling back to mind the residue of memory, depends on the laws which regulate the association of our ideas. We trace the associations by starting with the thought of the object present to us, then considering what is similar, contrary or contiguous.

Reason is the source of the first principles of knowledge. Reason is opposed to the sense insofar as sensations are restricted and individual, and thought is free and universal. Also, while the senses deal with the concrete and material aspect of phenomena, reason deals with the abstract and ideal aspects. But while reason is the source of general ideas, it is so only potentially. For, it arrives at them only by a process of development in which it gradually clothes sense in thought, and it unifies and interprets sensepresentations. This work of reason in thinking beings suggests the question, “How can immaterial thought come to receive material things?” It is only possible in virtue of some community between thought and things. Aristotle recognizes an active reason which makes objects of thought. This is distinguished from passive reason which receives, combines and compares the objects of thought. Active reason makes the world intelligible, and bestows on the materials of knowledge those ideas or categories which make them accessible to thought. This is just as the sun communicates to material objects that light, without which color would be invisible, and sight would have no object. Hence, reason is the constant support of an intelligible world. While assigning reason to the soul of humans, Aristotle describes it as coming from

without, and almost seems to identify it with God as the eternal and omnipresent thinker. Even in humans, in short, reason realizes something of the essential characteristic of absolute thought -- the unity of thought as subject with thought as object.

The relatively recent advent of functional neuroimaging has allowed neuroscientists to look for brainbased evidence for or against the argument that perceptual processes underlie mental imagery. Recent investigations of imagery in many new domains and the parallel development of new meta-analytic techniques now afford us a clearer picture of the relationship between the neural processes underlying imagery and perception, and indeed between imagery and other cognitive processes. These findings have important implications for investigations of imagery and theories of cognitive processes, such as perceptually-based representational systems.

Perception describes our immediate environment. Imagery, in contrast, affords us a description of past, future and hypothetical environments. Imagery and perception are thus two sides of the same coin:
Perception relates to mental states induced by the transduction of energy external to the organism into neural representations, and imagery relates to internally-generated mental states driven by representations encoded in memory. Various forms of mental imagery have been implicated in a wide array of cognitive processes, from language comprehension (Bottini) to socially-motivated behaviors such as perspective taking (Ruby and Decety), to motor learning (Yágüez et al.) Understanding the networks supporting imagery thus provides valuable insights into many behaviors.
To elaborate Aristotle’s position regarding sensation and imagination, it is important to delineate the departure he makes from the philosophy of Plato (c. 424-347 BC) before him, and the positive influence this had for the understanding of the senses in Western thought.
Scholars continue to demonstrate that investigating aesthetic experience requires multidisciplinary inquiry, using cognitive approaches to brain and behavior for the study of music, literature, creativity, visual arts, or film.
This paper concentrated on vital issues of neuro-aesthetics to understand the relationships between beauty, emotions, the complex mixture of pleasure and displeasure to help create aesthetic experience for the attainment of knowledge.

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