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INTRODUCTION TO *PRECOGNITIVE AESTHETICS:* A JUNGIAN APPROACH

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ABSTRACT

This paper anticipates some results of a research conducted in an innovative way through the most pervasive social network (Facebook) in order to explore a new investigation field based on the intersection among Analytical Psychology, Empirical Aesthetics and Information Technology. Exploiting the system of “like” and “share”, on which the platform is based, we have analyzed the aesthetic preferences by a sample of over 10,000 users worldwide, to which thousands of images of artworks were submitted. It was observed that some specific compositional elements within the artworks are able to activate the aesthetic preferences of the perceivers, revealing the universal Archetypal Forms of the Beauty and Aesthetic Pleasure that are inside the Collective Unconscious. The steady repetition of the preferences related to the same compositional elements has made possible to predict the subsequent aesthetic choices by the viewers, laying the foundations of the *Precognitive Aesthetics*.

Keywords: Art, Archetype, Collective Unconscious, Neuroesthetics, Precognition.

INTRODUCTION

The pervasive diffusion of the social networks has led us to ask whether it is possible to use Facebook as a discovery venue of the *Unconscious* inside the Net. In fact, Internet is made up of people, and if the *community* is the place where, according to Jung, the *Collective Unconscious* is hidden, then it is possible to trace the evidence of its presence also into a social network like Facebook. If the *Collective Unconscious* emerges and expresses itself in the form of representations - of which Art is the richest manifestation - or in the form of human reactions to these representations, then by submitting the images of artistic representations to the people and evaluating their aesthetic preferences it would be possible to detect the traces of the presence of the *Collective Unconscious* inside the Net.

While Art gets together all the experiences and the archetypal images of the humankind, Media enhance and amplify the *osmotic* assimilation and fixation of artwork images at the unconscious level, probably supported also by the mirror neurons, that “photograph” these images introjecting them unconsciously like a computer memory: this psychobiological process helps to build the *Archetype of the Beauty* and supports the evolution of the Aesthetic Pleasure receptors, able to react almost automatically and in reflected way in front of the artistic images, making *predictable* these reactions and creating a set of specific universal forms, that are present in every human being as psychological (but also cultural and historical) heritage of the whole humankind: an aesthetically predetermined psychic system, in which the concept of Beauty (and the ability of recognizing it) is probably a selective and hereditary trait of the human evolution. Here is a new form of *Aesthetic Cognitivism*, based on the *precognition* of behavioral aesthetic reactions by the perceivers.

METHOD

This is a brief description of the experiment method: three identical Facebook profiles have been opened, on which we have posted - every day for three years - thousands of Contemporary Art images, especially sculptures and installations, created through different artistic techniques. The sample was made up of over 10,000 contacts added to these profiles, that have been divided into two clusters: *naïve viewers* (namely: “not art expert”) and *art professionals* (artists, curators, critics, gallerists) from around the world. The experiment was focused on the analysis of the aesthetic preferences given by the viewers with respect to the posted images, that we have evaluated through metrics, analytics and folksonomies provided by the social network on the basis of the quantitative data obtained in terms of “like” and “share” expressed by the users, analyzing and segmenting the artwork characteristics, and identifying the visual occurrences related to the aesthetic user choices.

The experiment has confirmed that the viewers, with no significant differences between the two analyzed clusters (art insider or non-insider), have been attracted by the same combinations of compositional elements inside the artworks (such as specific shapes, colors, or spatial layout): they responded similarly to same aesthetic stimuli, so that it has been possible to predict rather accurately the aesthetic preferences by the viewers towards not yet posted artworks. The experiment have therefore highlighted the *responsive* compositional elements inside the artworks, able to activate the Beauty recognition and stimulate the aesthetic pleasure in the perceiver, unlike the Functional Magnetic Resonance Imaging (fMRI), which has allowed only to describe the brain modifications under the influence of specific visual stimuli and to identify the brain

areas connected to the activation of the aesthetic pleasure, without identifying the aesthetically *responsive* elements inside the artwork capable of activating the aesthetic pleasure and inducing a positive aesthetic judgment from the public.

Through our experiment it has been possible to isolate certain specific categories of compositional items within the artworks, able to activate the Beauty recognition and drive the aesthetic preferences by the viewers towards an artwork rather than another, to such an extent that we were able to predict with reasonable accuracy the aesthetic choices from the public. According to this result, it might be possible to lay the foundations for a *Precognitive Aesthetics*: we can describe the *Aesthetic Precognition* as the possibility to predict in advance the aesthetic preferences of a viewer towards an artwork, or the foreknowledge of how to activate the Aesthetic Pleasure in the public.

RESULTS

The scientific details of the empirical experiment will be described elsewhere: in this paper we want only to focus on the identification of the immanent universal principles that determine our aesthetic choices at an unconscious or subliminal level, not immediately detectable by neuroimaging investigations, neither explained by a purely scientific point of view. In fact, as already noted by the latest neuroesthetic research, “human beings are endowed with species-specific mechanisms that *resonate* in response to certain parameters present in works of art” (Di Dio, Macaluso & Rizzolati, 2007): keeping in mind the symbolic and evocative appeal of an artwork, and the conditioning exercised by the subjective aesthetic experience, personal values, emotions and specificity of the individual memories of each perceiver (Reber, Schwarz, & Winkielman, 2004), that surely determine a subjective and changeable judgment of Beauty, it has been noted that the perception of Beauty was activated more frequently in the presence of certain specific compositional elements inside the artworks.

As we have detected the same typology of aesthetic choices by the viewers towards the same visual stimuli, we think that the preferences of perceivers can be traced back to a unique and universal *Archetype of Beauty*, which determine the same aesthetic reaction mode by the viewers towards the artworks. By this we can deduce the presence of a common *toolkit* for the recognition and appreciation of the Beauty inside the *Collective Unconscious*, constituted by specific patterns of aesthetic behaviour implemented by the perceivers when they watch an artwork. In fact the Beauty, besides having certainly a psychobiological and neurophysiological substrate, seems to be connected to specific forms of aesthetic recognition that, not being completely explained by a neuroesthetic point of view, nor scientifically detectable through the current neuroimaging techniques as the fMRI, must necessarily reside in the deepest realm of the individual in the form of immanent and universal principles: the *Archetypes*. As argued by E. H. Gombrich (1984), the factors that determine the aesthetic experience are inherent in our biological inheritance, *even if we are not able to give them a conscious explanation*. Faced with specific visual stimuli, the aesthetic judgment seems to activate and *resonate* in the same way by all the perceivers: a sign of the presence of deep and archetypal structures of recognition of Beauty and Aesthetic Pleasure. It's like if the viewer - watching an artwork having specific characteristics - found the same images reflected inside himself, discovering something intimate and deeply already known, something immanent and pre-determined, a kind of immanent principle of Beauty: just an *Archetype*. The work of enrichment and accumulation of historical and cultural heritage made up of millions of individual aesthetic experiences all around the world, as well as the function of enhancement, amplification and

diffusion carried out by the Media, digital especially, seems somehow to be handed down over time, leaving an indelible imprint into the aesthetic sensitivities of generations, and this is difficult to explain without admitting the presence of a *Collective Unconscious* that works as a *resounding chamber*, an *aesthetic accumulator*, historical and evolutionary memory of the primary immanent principles, that change over time through the historical stratification of new aesthetic experiences by all people over the world. The implementation of the unconscious and universal archetypal forms of Beauty was fixed over time in aesthetic patterns of behavior, that tend to repeat and consolidate themselves increasing their coercive power towards the individuals. These models assimilate new contents through the aesthetic experience during the history, that is the stratification of perceptive and fruitive experiences over the time, and, through this process, they objectify and actualize the *Archetypes of Beauty* and the aesthetic response patterns by humans, transforming and adapting them in endless becoming process. So new sensitivities and new models of aesthetic pleasure are established, and new forms of artistic appreciation are transmitted over time - even by inheritance, according to Jung - and the taste changes, develops and updates (also thanks to the Media), determining a process of aesthetic evolution and adaptation of humankind, while keeping the original principles.

The perception of current Beauty, however, is not the simple result of millions of individual aesthetic preferences, historically accumulated over time, but it becomes something different and hardly perceivable on a conscious level: it becomes inferable and perceptible only when it is implemented and experienced by the perceivers, making intuitable or unveiling the original immanent principles - or *archetypal* forms - that are indirectly deductible and filled with historically determined contents through the artists' work and the aesthetic appreciation of the public, whose taste is guided by the universal principles of the Beauty and by response patterns to the Aesthetic Pleasure.

Through the aesthetic choices expressed by the viewers involved in our experiment it was therefore possible to unveil the deep and immanent structures of the Aesthetic Pleasure: the primary ideas that are grounded in our minds and permeate the *Collective Unconscious*, typical and universally shared modalities of Beauty recognition and aesthetic appreciation, that go beyond the neuronal structures of human brain.

As stated by Jung about the *Archetypes* (1928), their "potentials of representation" are probably transmissible over time, as an expression of the hereditary potentials of the psyche and cultural-historical heritage of the whole humanity, and, as such, identical for all individuals worldwide, but changeable over time: they might be a predisposition, a *Matrix* of aesthetic evaluation that is inherent and congenial to our perceptive and emotional frameworks, an aesthetic response pattern that is immanent in each individual, a form of intuition of the artwork "aura" (Benjamin, 1936); an archaic and primordial model, or primary and universal image that has always been inside the humanity, but susceptible of a continuous evolutionary process of stratification and symbolic enrichment, through which it has been periodically updated over generations by means of a widespread and shared consumption of the cultural and artistic products at the universal level, allowing the sedimentation of aesthetic and perceptual experiences of millions of individuals over time. Therefore there is an *Archetype of Beauty*, but also a *Matrix* of the Aesthetic Pleasure, an immanent and archetypal heritage made up of millions artistic experiences and aesthetic choices of all past generations: an archetypal form, a primordial image or impression of the Aesthetic Pleasure, a primary mental representation of Beauty, a functional predisposition to the aesthetic recognition, a model of aesthetic "Worldview" (*Weltanschauung*) that feeds the artist's creativity and drives the perception and appreciation of the viewers towards

the universal forms of archetypal Beauty. In fact, if it has been observed that most of people reacts in the same way in front of an artwork having specific compositional characteristics, it then becomes possible to deduce the universal principles that underlie the formation of the aesthetic judgment by the perceivers. These principles (or *Archetypes*) can be known beforehand and determined through the observation and recording of public preferences, based on systematically repeated aesthetic choices towards the artworks having certain compositional elements capable of activating the Beauty perception and stimulating the Aesthetic Pleasure: the possibility to predict in advance the aesthetic choices of the viewers allows us to talk for the first time about *Precognitive Aesthetics*.

CONCLUSIONS

We can define the *Aesthetic Precognition* as the possibility of identifying beforehand the immanent structures of the Beauty of an artwork, because these structures could correspond to the archetypal forms of the universal aesthetic cognition, that are present and rooted in the humankind all the time, and are able to drive the aesthetic perception of the viewers, activating the emotion of Aesthetic Pleasure: the knowledge of these structures makes it possible to predict in advance the aesthetic choices of the perceivers towards the products of artistic creativity. This archetypal *Matrix* is the substrate of an unconscious mythology, from which the artist can draw in the course of the creative process: a common heritage of all individuals just because they are immersed in the *Collective Unconscious* in the form of innate “potentials of representation” (Jung, 1928). The knowledge of the *Archetype of Beauty*, that is deducible from the observation of aesthetic preferences of the perceivers, through which the *Matrix* is implemented, would make it possible to determine in advance the aesthetic potential of any artwork, able to activate the positive aesthetic judgment by the viewers.

On the basis of these assumptions, it would be enough to insert deliberately some specific elements within an artwork for being able to activate the innate and immanent archetypal forms of aesthetic perception, conditioning the aesthetic judgment from the public in a predetermined way. In fact, Jung affirms that there are some categories of imagination, a kind of “a priori” ideas whose existence can not be proved without the experience (Jung, 1922). Only through the creation of an artwork, we can traced back to the regulative principles of the artistic creativity; as well as, in the same way, only through the aesthetic preferences of the public it is possible to traced back to the heritage of archetypal forms and symbolic primary imagery that control, activate, direct, drive and orient the Aesthetic Pleasure of the perceivers. In fact, the processes of artistic creation and the aesthetic appreciation implement the potential of primitive symbolic models that are hidden from immemorial time into the *Collective Unconscious*: a dialectical relation between potentiality and actuality that has its concrete expression and diffusion in the concrete artwork, and in the public appreciation the full correspondence of aesthetic pleasure with its immanent principles, through a dynamic process of transformation, sedimentation and historical stratification; a wealth of symbolic imagery and psychic residues that accumulate over time as a result of aesthetic experiences of all past generations, fixating in the human DNA and so genetically transmissible by inheritance. The primordial mythological figures (or *Archetypes*) that develop are therefore the result of millions of individual experiences stratified over time, mythological *pandemonium* and common heritage of the *Collective Unconscious*, from which both the artist and the public can draw (Jung, 1922): the rumors of humanity can *resonate* in this primordial imagery.

The artwork does not reside in the artistic object in itself, but in the creative act and in the aesthetic appreciation, as potentials of realizations of the universal unconscious mythology, made up by primordial and archetypal forms that belong to the whole humanity: if artist is the interpreter of the creative act, that reveals the immanent aesthetic archetypal *Matrix*, the artwork represents a bridge between *Ego* and *Collective Unconscious*. The *Archetype of Beauty* and the *Matrix of Aesthetic Pleasure* lead to a state of consciousness in which the viewer experiences - at the neurophysiological level - induce a sensation of contentment and wellbeing determined by the full enjoyment of an artwork: this experience has been called "flow" by the Positive Psychology (Csikszentmihalyi, 1988) and identifies a state of deep inner pleasure and gratification determined by the total absorption in the contemplation of an artwork by a viewer, who, immersing himself/herself into the "flow", comes into a full harmony with the archetypal dimension of Beauty.

The *Aesthetic Precognition* has nothing paranormal or esoteric, because it involves the neurophysiological and biochemical processes related to the brain function mechanisms and the human perception dynamics: it concerns the possibility to identify the archetypal forms that allow the individual to identify the Beauty and to experience the emotion of Aesthetic Pleasure confronted with an artwork containing specific *responsive* elements that can activate it. *Precognitive Aesthetics* confirms the cultural determinism that comes from many Jung's assertions: in fact, the Jungian concept of *Archetype* as "organizer of representations" or "pattern of behavior" (Jung, 1991; Jacobi, 1974) - that is "a priori" form able to organize the human perceptive experience towards an artistic object - identifies the human innate functional models, which as such appear to be biologically and genetically predetermined (Jung, 1995), as if they were inscribed in the human DNA. In fact, *Precognitive Aesthetics* confronts us with a kind of aesthetic determinism in which the preference of the public could be predicted or predetermined: it would be possible to know in advance whether a given artwork might like or not, or realize artworks able to condition and drive the aesthetic preferences of the public, such as specific forms of persuasive advertising or behavioral marketing.

The *predictive analysis* of the artwork's Beauty, based on the possible foreknowledge of the *responsive* compositional elements able to stimulate and activate the *Archetype of Beauty* and the *Matrix of Aesthetic Pleasure* could allow the artist to operate according to *Precognitive Aesthetics* in order to condition the aesthetic choices of the public, but this *premeditated act* could condition also his/her creativity. The creative spontaneity of the artist, immediate expression of deep emotions, could turn into a intentional ability to perceive the hidden *Archetype of Beauty* and stimulate the *Matrix of Aesthetic Pleasure*, exciting the desired aesthetic reactions by the viewers: the creative and spontaneous work of the artist could turn into *aesthetic predetermination*, creating artworks "predestined to be beautiful". Indeed, founding a predictive Aesthetics could be dangerous: the possibility to make a deliberate and artificial construction of Beauty, and the ability to influence the aesthetic judgment of the public, based on the foreknowledge of the universal and archetypal *Matrix* of activation of the Aesthetic Pleasure (that is aprioristically determined), could become a skilled technique learned by the artist, able to induce an *aesthetic premeditation*, but also inhibit and influence the creative freedom, bringing about a leveling and standardization of the artistic production on a "steady beauty", a sort of *white noise* that can stifle the spontaneous expression of the artistic creativity. In fact, the creative inspiration and impetus of the artist could be conditioned in advance: through the foreknowledge of the activation mechanisms of the Aesthetic Pleasure, the artist could become the maker of a conscious, intentional and *premeditated Aesthetics*, whose symbols are no longer obscure, incomprehensible, mysterious, and

indecipherable (like an *Archetype*), but definitively clear and disclosed, subtracting the artwork from its status of “autonomous set” of meanings.

Precognitive Aesthetics would allow the artist to bring out on a conscious level the archetypal, immanent, and innate structures of Beauty and the *Matrix* of Aesthetic Pleasure that are universally present in each of us, namely the common properties that form the asset of *Collective Unconscious* and the repository of primordial imagery, myths, symbols, that emerge through the expression of creative act by the artist, the impetus of symbolic representation, the primitive image of the sublime (Jung, 1922): a distortion and aberration of the Art concept, which could astonish and surprise in itself, but certainly should not affect the aesthetic choices of the public. The *Aesthetic Precognition* could therefore represent a threat to Creativity, which through the foreknowledge of the mechanisms capable of inducing the Aesthetic Pleasure might be influenced, conditioned, distorted and predetermined, making the artist less free and spontaneous, and reducing the artistic creativity to a mere behavioral marketing operation that aims to capture the public favor, with the result of determining a precise orientation in the artwork creation and in the aesthetic appreciation. But, on the contrary, it could also be an opportunity to enrich the universal art knowledge, so this would improve and learn by itself, spreading more *beauty* in the world.

If Neuroesthetics has made possible to identify the brain areas involved in the aesthetic appreciation (Zeki, 1999), the research we are currently conducting could be able to draw the map of the archetypal structures of Beauty, and identify the *Matrix* of Aesthetic Pleasure that are inside the *Collective Unconscious*. These archetypal structures have come out of the aesthetic choices by the viewers with respect to the submitted artworks, certainly connected to the psychobiological and neurophysiological mechanisms of human perception (Martindale, 2007): they are allowing to deduce the deep and inward categories - not detectable by diagnostic instruments or neuroimaging techniques - involving likewise both the artists and the public. In fact, this research has gathered enough evidence to confirm that the *Archetype of Beauty* is really inscribed in the *Collective Unconscious*, or even better, it represents the *Collective Unconscious*: if artistic creativity is as an *instinct* able to access to the *primary images* and bring out the universal *Archetypes*, each of us is ineluctably *predestined to recognize* the Aesthetic Pleasure (Vartanian & Goel, 2004). And this *predestination* might be a genetic predisposition of humankind.

Our investigation is not finished of course, but it is only at the beginning: next step will be to identify an *Aesthetic Algorithm* able to describe in mathematical terms the process of *archetypal vision* that induce the Aesthetic Pleasure, and how artist and public come in tune with the *Archetype of Beauty*, namely the algorithmic description of those elements able to make *resonate* at a deep level the *Matrix* of Aesthetic Pleasure of the perceivers towards an artwork, bringing these deep structures to the surface of Consciousness and implementing them in the form of actual choices of aesthetic appreciation by the viewers: an algorithm that might be predictive with respect to the preferences and aesthetic choices of the public towards the artworks. Although Jung pointed out the irreducibility of the *Archetypes* to simple formulas, our investigation is showing that this is somehow possible, even if it is most likely that the neurophysiological factor will prevail on that unconscious. After have deducting the presence of the *Archetype of Beauty*, we would try to understand what is the role played by this *Archetype* in the activation of Aesthetic Pleasure when we admire an artwork, regardless of the neurophysiological processes involved in the perception of the Beauty. But this will be the topic of another paper.

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