

# ***How Can We Explain Beauty? A Psychological Answer to a Philosophical Question***

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ABSTRACT. Why do we find a poem, a piece of music or a sunset beautiful? What elements exist in an object so that it looks appealing to us?

Although the field of aesthetics has been treated over centuries by theorists from various fields, beauty is still an open question. In my view, this is due to the lack of integration of the findings and theories from different scientific disciplines.

This work aims to close this gap. It relies primarily on the psychological PSI-theory (Dörner 1999) that explains beauty as an emotional response to the perception of determined and uncertain contents and structures. This theory deals with the functioning of the human soul and brings together the areas of motivation, emotion, cognition and action. This approach combines psychological theory and philosophical aesthetics and attempts to give new answers to an old question in this interdisciplinary way.

Beauty does not exist “just like that”. There is a reason why we perceive something as beautiful: Physical human beauty is linked to evolutionary patterns, such as the scheme of childlike characteristics, or the advertence of the primary and secondary sexual organs. Other traits, like tanned skin or body weight, depend on our education and culture and so are changing over time. The same occurs with a particular poem, a song or a painting: Their beauty is caused by certain elements in the aesthetic object, and in our way of perceiving and processing of the perceived. Only in a few cases are we aware of this process — hence our impression that beauty often

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“just simply exists”, without us being able to justify why. As Haubrich (1998) remarks, beauty is difficult to define, although it is one of the most everyday phenomena that everybody seems to know (cf. Haubrich, 1998, p. 5). This article tries to show that by using a psychological theory it is possible to explain beauty.

A holistic, the aesthetic experience comprehending psychological approach offers the PSI-theory<sup>1</sup> of Dietrich Dörner (1999). This theory deals with the functioning of the human soul and unites the areas of motivation, emotion, cognition and action. It provides a model for the explanation of human action and experience in diverse areas and is not limited to a few aspects, but considers a huge variety of different phenomena in human life. The PSI-theory gives important starting points for understanding the aesthetic experience. This article, that is based on my PhD-thesis (Delle Donne, 2010), takes the theory as a basis, but specifies and applies it to the field of beauty. This corresponds to Allesch’s (2006) postulation of applying existing psychological theories to aesthetic phenomena (cf. Allesch, 2006, p. 21). The connection of the PSI-theory with the field of beauty leads to new insights and shows that it is possible through the combination of different disciplines to make progress on old questions.

### ***I. What is beauty?***

In this work, the concept of beauty is deliberately very broad. Beautiful is what we like, what is fascinating, interesting, great, maybe funny or inspiring to us. Beautiful things cause pleasure, and this pleasure can be more or less intense and perceived in different ways. This idea is not new: As Otto (1993) states, from Plato and Aristotle, to the early British empiricists aestheticians and on to Kant, Hegel, Schopenhauer and very recent authors, it is considered that pleasure is a central element of aesthetic experience (cf. Otto, 1993, p. 113). In many cases, this pleasure is perceived as the so-called “flow” (Csikszentmihalyi, 2008). This means that the perception of time changes in dealing with an aesthetic object — a piano sonata, for example — and we are totally absorbed and involved with the aesthetic experience. With this very broad definition of beauty I focus on every-

<sup>1</sup> PSI stands for the greek letter  $\Psi$ , representing the human psyche and psychology.

day usage of the word "beautiful" and focus simultaneously on the human experience. Beauty is therefore a pleasurable feeling that rises in the the perception of each individual. But how is this pleasure created?

Dörner's integrative explanatory model of human experience and behaviour can be applied to various areas of life. A particularly interesting area is the perception of beauty, because beauty has to do with the fields emotion, motivation, cognition, thinking and learning at the same time (cf. Dörner in Halcour, 2002). In order to explain the phenomenon of beauty, one must consider all those psychological factors and their interactions. Beauty defies categorization into one of the psychological sub-disciplines, because it covers as a process the whole human experience.

## ***II. Order and Chaos — Indeterminacy and Determinacy***

A recurrent concept to explain beauty is that of unity in diversity. The concept of unity in diversity implies that in the course of viewing a chaotic, disorderly subject, structures are recognizable. The discovery of an order is seen as the cause of the beauty. This still represented theory can be attributed to the Pythagoreans in ancient Greece and is represented over the centuries by theorists such as Aristotle, Leibniz, Baumgarten, Kant, Fechner, Berlyne and Birkhoff. Despite many differences all these approaches have in common that they see the interplay of order and complexity as the cause for the origin of beauty. Beauty rises up when we find an order in a chaos or when the order ends in chaos (cf. Cramer & Kaempfer, 1992, p. 52). In all theories, as well as the factor 'order', the importance of deviation is emphasized. Uniformity, regularity or order alone are not perceived as beautiful, but only in combination with deviations or variety (cf. Anz, 1998, p. 88).

It is striking that none of the theories can justify why the achievement of an order in disorder is perceived as beautiful. Postulated by the aforementioned theorists and since the 19<sup>th</sup> Century proven by experiments, no publication, however, describes what is behind this theory, and therefore what the cause is for beauty as the discovery of the unity in diversity. Why is the order in a chaos perceived as beautiful? The above-mentioned PSI-theory will help to explain this "why" and thus provide a "backbone"

for the concept shown here. The concept of unity in diversity is not to be taken for granted but be psychologically justified.

For the purpose of PSI-theory, beauty is not justified by the founding of common patterns in itself, but it is based on satisfying the need for uncertainty reduction. Certainty is, together with competence, affiliation, sexuality and the existential needs like food and pain avoidance one of our basic motifs. We have a necessity to explain the situations and things surrounding ourselves. When we understand a principle and detect a structure we feel good because of the fulfilling of our basic need for certainty. The beauty of a poem, painting or piece of music does not therefore depend on the principles of order themselves, but in the discovery of order "against resistance" (Dörner, 1999, p. 376): The observer of a painting, for example, is initially confronted with an uncertainty producing chaos. Beauty must therefore be preceded by a "disinclination" (Anz, 1998, p. 109), which consists in the perception of chaos and disorder. In the course of observation of the artwork finally structures and connections are provided which reduce the disorder and the incomprehension. We have a need for causality and explanations of the new and unexplained. In the moment when patterns are recognized the need for certainty diminishes and we find satisfaction and thus pleasure — and beauty. Beauty is, therefore, the fact that needs are satisfied, or to be precise, the need for certainty.

Beauty therefore is linked with motivation, as well as with perception, memory and information processing. Above all, beauty is pleasurable — it is a feeling. Aesthetic objects can evoke different feelings in us: We are taken, moved, are extremely enthusiastic, melancholic or impressed in front of a magnificent work of art or a stunning landscape. All these moods and feelings, however, are based on the detection of semantic or syntactic relations in the beautiful object (cf. Dörner, 1999, p. 382). The discovery of rules and structures can run on many different levels. Both in the syntax, i.e. the relationship between the elements (cf. Dörner, 1999, p. 381) and in the content-related or semantic field, uncertainty can be reduced. By detecting an underlying message in the artwork the viewer experiences a growth of order at the level of the content. They interpret the aesthetic object as an expression of a larger idea, and therefore uncertainty is reduced. In the syntax this process takes place by the recognition of struc-

tures: We perceive the meter of a poem for example as alternately lifting and lowering. This up and down is classified as a recurring pattern, and thus as a kind of order that is “understood”. The uncertainty is reduced, giving a joyful and “beautiful” process. The syntax always cooperates with the semantics and both areas are perceived by the viewer in their interaction. The degree of complexity is important for each viewer. A work of art appears boring when the stimulus configurations can be decrypted too fast. If we don’t discover any structure or at least the idea of a “secret” in the work of art, we turn away and the object appears incomprehensible and chaotic, but not beautiful.

But how is uncertainty built and reduced? Uncertainty is diminished when we understand something. The basis for understanding is our perception: According to Dörner (1999), perception means that something in the outside world is related with a content in our memory (cf. Dörner, 1999, p. 134). When we perceive something, we classify “something as something” (Dörner, 1999, p. 225) and meanwhile a certain horizon of expectation is built: We assume that the perceived follows a familiar pattern. If not, so when something new, unexpected, or unclear appears, and we can’t assign it to any scheme, it creates uncertainty. Whilst reading a poem or watching a painting this process takes place continuously: The interchange of uncertainty and certainty caused by the elements in the work of art is one of the fundamental causes of their beauty. We are, nevertheless, unaware of the processes taking place in our information processing. According to Dörner (1999), we know very little about the basic manufacturing processes of our minds: We don’t experience them and we know as little as we do about the chemical processes of our metabolism (cf. Dörner, 1999, p. 379). Consequently, we very often perceive things simply as beautiful without being able to justify why. On closer analysis these processes, as well as their trigger, can be determined. The “secret of beauty” (cf. Voigt, 2005) is thus within reach.

### ***III. Self-Recognition and Beauty***

When we find parts of our own lives and thoughts or subjects concerning ourselves represented in an aesthetic object, the pleasure and interest in

dealing with this object is important. Already Plotinus has spoken about the compatibility of a pleasurable thing and the viewer. The kinship from the soul with the beautiful object constitutes the attraction for the beholder (cf. Scheer, 1997, p. 15).

A questionnaire study from Rowold (2001) confirms the importance of this aspect. According to the study, self-congruent information is perceived and processed quicker than incongruent information (cf. Rowold, 2001, p. 39). A poem, for example, that reflects a personal experience, will encourage a longer study of the text than a poem which does not correspond with the life situation of the reader. The factor analysis resulting from the questionnaire survey determines self-congruence as the most important factor for the effect of art. Whether figurative or abstract art, “in each case, the viewer creates a personal relationship with the art work and compares himself with what he holds to be in the picture” (Rowold, 2001, p. 102). References to the theories of Wetzl-Fairchild (1991), Schurian (1986) and Kreitler & Kreitler (1980) are given thereby. All these authors stress the recognition of the personal situation, of identity and of the own history as central for the effect of the aesthetic object.

With the PSI-theory the importance of self-recognition in the aesthetic object can be reasoned psychologically. Self-recognition has to do with the confirmation of one's own world view. Our world view consists of the schemas stored in our memory and controls our perception and our actions. As Dörner (1999), but also Halcour (2002), show, our world view determines the access to a beautiful object. Referring the content of the aesthetic object to our own lives we get clarity about our own person. When we find ourselves in the poem, we gain an order for ourselves and our experienced situations, thoughts, desires and hopes. The resulting increase in certainty is particularly relevant to our lives and is therefore perceived as strong. The size of the uncertainty or certainty is influenced by the importance of the uncertainty for our needs (cf. Dörner, 1999, p. 364). Uncertainty, which refers to our own lives and affects us directly, is greater than an uncertainty-producing situation that does not relate to us. Hence the satisfaction and the resultant positive feeling are especially significant when we discover our own ideas, for example, in an aesthetic object.

By comparing one's own thoughts with the content of the artwork, the viewer perceives that they are not alone with their problems and feelings. They thus experience a satisfaction of their need for affiliation (cf. Halcour, 2002, p. 141). There are other people who feel like us — that means we feel part of a community. Not only affiliation and certainty, but also the need for competence are increased by self-recognition in the aesthetic object. Finding one's own feelings in a work of art makes them appearing to be important, and this strengthens the confidence in one's own sensations (cf. Halcour, 2002, p. 141).

The self-discovery in the aesthetic object provides a theoretical justification for the commitment with art and other beautiful objects and situations. Another explanation should be added here. Why do we actually devote ourselves — sometimes with great difficulties — to poems, songs or oil paintings? Our discussion of aesthetic objects is related to the term “heterostasis” (cf. Cannon, 1939). As previously mentioned, a basic need of man is the pursuit of competence. To satisfy our need for competence, we must expose ourselves to problematic situations, such as “strange” or “difficult” appearing art. We read a difficult poem, precisely because this poem is a challenge. We thus go into a situation full of uncertainty, to reduce it. When we succeed in coping with the poem, in understanding it and in categorizing it in a certain way certainty increases and thereby also our competence (cf. Dörner, 1999, p. 419). The confrontation with works of art thus stems from our need for competence, which can be fulfilled with any signal of satisfaction, including with the satisfaction caused by the reduction of uncertainty.

#### ***IV. Beautiful Memories and Associations***

In addition to the fulfilment of the needs of certainty, competence and affiliation, another cause for beauty exists, defined by Fechner (1876) as the associative factors. Koppe (1983) also mentions this factor as constitutive for beauty (cf. Koppe, 1983, p. 135). According to these, two kinds of associations are distinguished: First, personal memories are evoked by specific stimuli. As Halcour (2002) explains, individual experiences are very often associated with sensory impressions, such as with a certain melody, a color

or a smell. In this way, idiosyncratic associations can arise that cause a certain stimulus pleasant or unpleasant, beautiful or ugly (Halcour, 2002, p. 178). Beauty is thus learned to some extent: We combine the perceived with learned, emotional schemas and by these associations we perceive it as beautiful, fascinating or ugly.

Another, less individual kind of association is innate and evolutionarily conditioned (cf. Halcour, 2002, p. 178). In aesthetic objects, certain elements can be identified that remind us of the fulfilment of different needs and thus trigger satisfaction. Beauty is so often caused by the association of sexuality, eating, or affiliation. We perceive sexuality depicted in a nude study, or the orange mentioned by Fechner (1876) Orange, as pleasant and therefore beautiful, is so because it reminds us of the satisfaction of needs. The beauty of a nude or of the fruits in a still life is built, of course not only — but also — through associations. Here again we discover certain regularities, so that again beauty is generated by uncertainty reduction, or according to Fechner (1876), by the so-called direct factors. Beauty rises in any case not only through one factor, but always in the interaction of multiple elements at different levels.

The associations thus are similar for different viewers. In the perception of a particular stimulus, like a naked female body, the particular constitution of the beholder, his attitude and motive structure at this moment, as well as his prior experience and the above-mentioned personal memories and learning processes are an issue. Even so, the nude study conditions the probability that the viewer remembers the satisfaction of the need for sex. This reminiscence of a satisfaction is pleasurable in small measure — how pleasurable depends on the current needs, the world view and the experience of the individual. Whether the painted naked woman, the orange or elements that associate the fulfilment of other needs are perceived as pleasurable and if they are processed at all, only with the full knowledge of each viewer can be predicted (cf. Halcour 2002).

I proceed on the assumption that in aesthetic objects associations with all human needs can be found. The division by Dörner (1999) in existential needs, sexuality, affiliation, determination and competence are a first orientation from which to search for such elements evoking associations in the beautiful objects.



***V. The Origin of Beauty in the Individual and in the Work of Art.***

The experience of beauty varies from person to person, but also from situation to situation. A poem that we like today, tomorrow may already be boring. Beauty, boredom or chaos are “subjective categories” (Dörner, 1999, p. 379), because depending on previous experience, world view and learning processes, an object is perceived and processed differently. This explains the great individuality of the appreciation of beauty. The worldview of a person and the existing schemes in which what the perceived is classified, are the main reasons for our interindividual differences in the experience of art.

The individual sense of beauty is also determined by the particular needs of the recipient. Depending on the competence the uncertainty caused by a work of art is handled differently. When we do not feel competent enough, so it is likely that we simply classify a chaotic picture simply as “poor” and we do not deal further with it. In moments of greater competence, we will expose ourselves to a more difficult “enigma”. Moreover, the expectations while being in contact with a work of art are different. The viewer may watch a picture with the expectation that certain wishes will be fulfilled, such as distraction, fantasies or the maintenance of hopes (cf. Halcour, 2002, p. 86). Depending on the extent to which the work of art promises by its content or its syntactic structure to meet these needs, a deeper exploration will be done.

Despite the subjectivity beauty is determined by objectively ascertainable elements in the aesthetic object. Aesthetics can therefore neither be developed as a purely subjective or as a purely objectivist theory (cf. Henckmann, 2004, p. 46). In any aesthetic object, those elements that make the emergence of beauty for the particular viewer likely can be brought out. According to the theory presented here beauty originates due to the reduction and the increase of certainty during the confrontation with an aesthetic object. Furthermore, associations are pleasurable, which are caused by existing elements in the object and which remind us the fulfilment of needs. There are thus in each landscape, and in any pop song, and in any literary text elements that make the perception of beauty possible and likely. Whether and when these elements are perceived by the recipient as pleasant and beautiful, however, lies in his individual need structure,

in his worldview and his previous experience.

## **VI. Summary**

The origin of beauty can be explained and demystified with the help of theoretical psychology. Dörner (1999) embeds within his “formula” (Dörner, 1999, p. 382) well-known theories in a comprehensive approach from cognitive psychology: Beauty is based on the discovery of syntactic and semantic rules and on associative factors. Thus, the explanation of what constitutes aesthetic experience finds a psychological foundation.

Beauty emerges, therefore, by recognizing patterns, mechanisms and relations in content. The perception of structure is conceived as pleasurable. It is not the structures by themselves that constitute the beauty, but the satisfaction of the human need for certainty, so for order and understanding.

Particularly significant for us are aesthetic objects in which we rediscover our own thoughts, desires, or experienced situations. We find ourselves depicted in the objects, we see in them our own lives and feel security through the artwork. The recognition of central beliefs and experiences satisfies not only the need for certainty but also for affiliation: We are not the only ones who think and feel this way, but the work of art expresses our innermost feelings.

Furthermore we frequently remember pleasurable events when we deal with an aesthetic object. Certain elements of the artwork can evoke in us an association with the satisfaction of other needs. These memories contribute to the emergence of beauty.

Although beauty is in the viewer and is therefore a subjective feeling, fundamental elements that make beauty recognisable can be identified in any aesthetic object. Order-generating structures, the recovery of our own thoughts and feelings, and memories of satisfactions are the basic elements that make a melody, a poem or a sunset seem pleasurable and beautiful. The here-presented theory thus provides the necessary tools to analyze any aesthetic object on the basis of the above mentioned elements and contribute to the understanding of the phenomenon of beauty.

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