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Why Beauty Still Cannot Be Measured

Ossi Naukkarinen

Abstract

This article focuses on the question of whether the latest results achieved in sciences such as evolution studies and brain research can help us understand the nature of aesthetic judgments. It suggests that such approaches may offer interesting insights for understanding many problems in aesthetics, but for clarifying aesthetic judgments one needs a philosophical point of view. Aesthetic judgments cannot be proven right or wrong by scientific methods, and beauty or other aesthetic qualities cannot be directly measured. The "method" of both making and analyzing aesthetic judgments is discussion, and the article clarifies why this is still the case, even if empirical, non-philosophical scientific methods are more accurate than ever before.

Key Words

aesthetic judgment, brain research, evaluation, evolutionary aesthetics, measuring, Welsch

1. Introduction: Philosophical and Non-Philosophical Aesthetics

In the academic context aesthetics is normally understood as a philosophical discipline. In recent years, however, more and more books and articles have been published in which aesthetic issues are dealt with by methods and conceptual tools provided by natural sciences and other non-philosophical disciplines. This non-philosophical approach to aesthetics has a long history in experimental psychology, started by Gustav Theodore Fechner, and the connection is understandable in light of Alexander Baumgarten's work, which paved the way for the research of emotions and senses from many perspectives, even if his own studies were still purely philosophical. Later, new ideas were adopted from elsewhere: from anthropology as well as from evolution, cognition, and brain research; and various types of measurements, as well as interviews and statistical methods, have been used.

In this article I will concentrate on the question of whether non-philosophical approaches can help us understand the nature of aesthetic judgments. It is sometimes hoped that the natural sciences and other non-philosophical approaches would take us closer to judgments that could be proved right or wrong. At the least, judgments could be expected to be better understood with their help.

This kind of attitude can be sensed on the web-page of the research project *Braintuning* (2006–2009). As the goal of the project is described, it becomes clear that aesthetic judgments are approached by studying the brain with neuro-cognitive methodology, and one aim is to find "neural determinants" of music appreciation (*italics added*):

What are the neural determinants of music appreciation

and emotions? The Psychology of Aesthetics is an old branch of Experimental Psychology that is currently gaining new momentum in the light of neurocognitive methodology and paradigms. The Neuroaesthetics of Music is the field that focuses on music processing within this framework. In this workpackage, we explore the *knowledge structure underlying music appreciation*. The conceptual structure of the aesthetics of music is investigated. These knowledge representations reflect music training, expertise and cultural background. This acquired background affects our emotional as well as *aesthetic responses to music*. Consequently, it also has an effect on *the brain correlates of emotional responses to music as well as aesthetic judgments of music*. [1]

This description is fairly modest and the role of cultural backgrounds in judgments is also included. I will later return to notions presented by one of the group members, Mari Tervaniemi, who refines the basic points of the project description. In some other psychological studies, however, the role of cultural factors is left practically unmentioned and the focus is emphatically on neural systems and the brain. This attitude becomes clear in some texts by Colin Martindale, who writes that beauty judgments are closely related to certain states in human beings' sense organs and the brain, and are also explicable with the help of these states. He summarizes: "According to the theory, stimuli are judged as beautiful to the degree that they elicit similar states in the brain." [2]

Similarly, Wolfgang Welsch, who used to concentrate on philosophical aesthetics, has lately been interested in non-philosophical approaches and makes strong claims based on the empirical findings of scientists. He is looking for universal explanations of beauty and finds them in the brain, which has developed to its present state through the long process of evolution:

Rather, there are indeed universal patterns of appreciation of beauty – aesthetic preferences valid for humans in every culture. All humans evaluate objects that correspond to these patterns as beautiful. /.../ Analogously, recent brain research also teaches that the experience of the beautiful is determined by the internal architecture of the brain, that our subjective neural disposition is decisive for beauty – that beauty is indeed brain happiness. [3]

In addition to this brain research, Welsch, like Denis Dutton and Nancy Etcoff, deals with some landscape and human body preferences that can be seen as universal in a certain way that I will expand upon shortly. Similar results and numerous examples are also presented in the collection, *Evolutionary Aesthetics*. On the back cover of the book it states that "Evolutionary aesthetics is the attempt to *understand the aesthetic judgment of human beings* and their spontaneous distinction between beauty and ugliness as a biologically adapted ability to make important decisions in life" (italics added). [4]

But if brain research reveals something universal in the functions of the brain and neural systems, or if it can be shown that because of the evolutionary history of the species

human beings tend to like certain kinds of human bodies, faces, or landscapes, what does this signify for aesthetic judgments? Not much, and certainly not enough. The purpose of this article is not to deny the importance of non-philosophical viewpoints for clarifying some aesthetic issues, but to emphasize that they don't work very well in others. Aesthetic judgments cannot really be understood through them, and this situation has not changed even if empirical research methods have become more and more precise. The aim of the article is to point out why this is the case.

2. A Typical Case of Aesthetic Judgment

My back yard looks good and I know it just by looking at it. I don't doubt my own experience and that is why I can make this aesthetic statement and be sure about it. I could describe the backyard by saying that it is situated in the country and that the lot is medium-sized when compared to others in the neighborhood. These would be non-aesthetic descriptions.

A situation when someone makes an aesthetic statement about a particular object is the basic form of aesthetic judging. The object does not have to be a clear-cut physical thing even if it often is (a painting, a bicycle, or a cat); but it can also be a less defined area (a yard, a village, or a landscape), an event, a story, or even a dream. In any case, aesthetic evaluation presupposes one's own, personal sense experience of the object evaluated.

For the sake of comparison it is good to emphasize that, for example, the size of my lot can be measured without seeing it, if one has a good map. Correct information can be achieved with the help of a representation, which is not the case in aesthetic judgments. A map or any other representation is not the lot itself. If one looks at a picture of a lot, one can actually only evaluate aesthetic features of the picture, although one will naturally get some idea of such features of the object represented. But this idea may be rather far from the object itself and one cannot really know how far without having direct multi-sensuous contact with it.

Any two objects are different from each other in some respects, and thus particular or unique, and in aesthetic evaluations one is typically interested in how exactly the particular case in question looks, sounds or is felt in a given situation. One pays attention to the tiniest details and nuances. Anything can be important, but one cannot know in advance what that may be. In art and design schools, students sometimes have to train their sensibility by comparing two seemingly similar mass-produced objects, and they always find differences between them: the particularity of the objects is noticed. If one doesn't notice it, one is not making an aesthetic evaluation, or it is, at best, a very superficial one. Sometimes, as in Nelson Goodman's thinking^[5], this kind of close and detailed attention is especially related to art, but it can be seen to belong to a more general aesthetic attitude that can be applied anywhere.

One may make aesthetic judgments silently in one's mind, but they typically become more interesting and problematic when expressed in words to others. I agree with Aarne Kinnunen,

to whom aesthetics is necessarily a social construction.^[6] Aesthetic values, opinions, and ideas are developed in social interaction by discussing, arguing, assenting, listening, doing art, dressing up, singing, altering traditions, etc. The judgments made silently in one's mind are based on this shared and socially learned activity. Aesthetic experience, in the essential meaning of the term, is born and exists only in social interaction, and it is eventually identified as its own cultural entity on the level of talking and writing.

This social existence as such does not suffice to make the aesthetic approach its own kind of cultural entity because also other fields such as science and religion are also socially construed. Rather, it is a question of which issues are emphasized in this particular construction and how the approach defined by such emphasis is identified. The aesthetic point of view is often indicated by the use of certain language, such as talking about beauty, which, in turn, has its own and many-sided cultural history and connections to other cultural practices. Also, the importance of direct sense experience and particularity, as mentioned above, are typically accentuated.

An object one pays attention to can be interpreted and conceptualized in many ways, not only aesthetically, and this means that emphasizing aesthetic aspects is a conscious choice. Aesthetic judgments are not simple, unavoidable, and perhaps even unconscious causal reactions to stimuli. Such reactions do take place – an unintentional cry when one gets frightened – but they are not aesthetic judgments.^[7] This doesn't mean that aesthetic judgments have no ties to factors that are not culturally determined, such as the structure of the brain, but these don't suffice to clarify the nature of aesthetic evaluations.

When we talk about our aesthetic opinions we reveal them to others. But will they agree with us? I believe that my opinions concerning particular, individual cases can only be strengthened or disputed by discussing them, and not even the most exact measuring results of my brain or the largest statistical researches on other people's opinions could prove or verify that my opinion is worth supporting or not. Why is this and how does this notion characterize the aesthetic approach in relation to some others?

3. Philosophical and Non-Philosophical Approach to Objects of Judgment

In philosophical approaches to aesthetics it has often been said that discussions between differing judgments cannot be settled by referring to characteristics of evaluated objects. This conviction has its roots in Plato's *Hippias Major*, and it was also dealt with in various ways in the taste disputes of the eighteenth century. In modern aesthetics Frank Sibley has probably provided the best-known formulation of the idea.

According to Sibley, aesthetic concepts like 'beautiful,' 'balanced,' 'serene,' or 'gaudy' are not condition-governed. By this he means that even if the aesthetic qualities of objects are dependent on non-aesthetic ones – or that they are emergent – “there are no nonaesthetic features which service in *any* circumstances as *logically sufficient* conditions for applying aesthetic terms.”^[8] Objects may have features everyone with normal sense abilities can detect – their size, color, and form –

but one cannot infer from them that the object *must* be aesthetically of some certain kind. On top of that, it is quite normal that one sees the non-aesthetic features of an object but may not see some aesthetic ones, even if guided. Thus, one cannot define aesthetic concepts on a general level. Let's take 'serenity' as an example. There are many ways individual objects can be serene. It is possible to list typical features of serene objects but the list may not be of particular use when one evaluates specific cases. A monochromatic painting may be serene because it does not have a disturbing amount of features, but it can equally well be dull.

The idea that aesthetic concepts are not condition-governed also have to do with another issue Sibley takes up: aesthetic evaluations concern totalities, not singular features of them:

First, the particular aesthetic character of something may be said to result from the *totality* of its relevant non-aesthetic characteristics. It is always conceivable that, by some relatively small change in line or color in a picture, a note in music, or a word in a poem, the aesthetic character may be lost or quite transformed.^[9]

A slow tempo can create serenity in some cases but if the whole is changed even slightly the piece may become boring. Also, one has to notice the context in which the whole is received; changing the context may have a strong impact on the eventual judgment.^[10]

This approach to understanding aesthetic judgment has been broadly accepted for some time, but will the latest and most exact empirical research change the situation? Those who are convinced of the results yielded by so-called evolutionary aesthetics can point out that it has been shown that people coming from very different cultural backgrounds like similar things. For example, a large part of human population values so-called savanna landscapes that have open views, preferably some water elements and places in which to hide (trees, bushes). Also, a great number of men seem to prefer women who have smooth skin, full lips, and thick hair, and whose hip-waist ratio is close to 10/7. Moreover, Welsch presents certain geometrical forms and other visual principles such as symmetry and the golden section that have been shown to be universally appreciated. All such preferences have been explained with the help of evolution: they are claimed to be connected with adaptations that are or have been beneficial to the survival of the species and that have thus gradually come about in the course of evolution.^[11] Cannot it thus be said that the aesthetic quality of a savanna landscape or a certain type of female body is an objective fact that can be proved, even measured? If my backyard resembles a savanna, could one statistically demonstrate that it is aesthetically pleasurable?

One may assume that if *any* backyard is of the savanna type, many would find it pleasurable. But this won't tell us much about judgments made about an individual backyard by specific individuals or about how their opinions are seen by others in social interaction. And this is what aesthetic judgments are all about.

Problems come from many directions. Often a yard has

nothing to do with savanna landscapes but it may still be considered aesthetically rewarding. A Japanese garden might be more interesting to some. Also, not every beautiful woman has full lips and thick hair. In such cases one cannot refer to “universal” characteristics, and reasons for one’s judgments must be given in some other way. Everything that is beautiful is not beautiful for the same reasons; the term is extremely elastic. Evolutionary-universal reasons for preferences and judgments apply to some cases only.

Moreover, a yard’s resemblance to a savanna landscape does not ensure its aesthetic value. There might be several features in this particular case that compromise the overall aesthetic value of the totality. There might be disturbing junk or an unsuitable tree growing in the yard even if it is otherwise acceptable. It is not the general category but the particular case that counts in the end.

When can one say that a yard is of the savanna type is not a simple question either, or that a face has smooth skin and full lips? Even Nancy Etcoff, who supports the universal conception of human beauty, admits that it has been shown that a tiny, even one millimeter difference makes a face look very different, more or less beautiful. Such nuances are probably important in the context of landscapes and other objects, too. Also, it has been shown that exactly the same measurable features can be found both in the faces many find beautiful and in the ones found to be less so.^[12] Defining universally valued objective features exactly is extremely difficult, if not impossible. What is more important, however, is that aesthetically significant qualities don’t need to be exactly defined or measured. What one needs is sense-contact with the object expanded upon through discussion, but even then categorization as such is not enough.

It is also problematic that in landscape studies the focus is often on the pleasurable features of landscapes. But aesthetic valuations are not necessarily connected to easily and directly demonstrable pleasure, and indeed something can be seen as aesthetically rewarding even if it is ugly, grotesque or disturbing. This attitude is perhaps more common in the arts but appears elsewhere as well. In such cases pleasure, if it is pleasure at all, is not of the same kind as in classical and harmonic cases, and it is not probable that similar features in the objects would be appreciated. So, do these different cases have different evolutionary backgrounds and explanations as well? This might be possible, as Randy Thornhill suggests,^[13] but the idea would need more explication than she offers. Namely, it is very unlikely that *all* possible variations of aesthetic value and judgment from harmony to camp and cheesy would have their own, particular evolutionary explanations. Yet, all these variations do have their role in aesthetic discussions. Evolutionary aesthetics tends to narrow the scope of aesthetics down to a rather one-sided studying of beauty and ugliness, which doesn’t tally with the almost limitless scope of aesthetic discussions, and this is a problem that bothers even some of the evolutionary aestheticians, such as Olaf Breidbach.^[14]

It is not always even clear whether something that is considered pleasurable is *aesthetically* pleasurable, and this is

related to the above-mentioned notion that aesthetic judgments are identified as such only through deliberate social interaction. A person whose appearance is found pleasurable can be erotically so, and in some cases there might be good ethical reasons to act from other than the purely aesthetic point of view. This means that pleasure as such is not a sufficient indicator of aesthetic, or of erotic or ethical approaches but more is needed, and typically this "more" is verbal judgments.

The aestheticians who lean on evolutionary research do not normally do empirical research themselves. It is often the case that they don't even present the empirical studies carried out by others as carefully as could be done, although it would obviously be important if one bases one's philosophical arguments on such studies. Hence it often remains unclear what kind of research methodologies produced the results in question, and what can thus be inferred from them. For example, when Welsch introduces the results of landscape preference studies he does not tell how many people have been interviewed or studied in some other way, or whether the researchers have used photographs or real landscapes when finding out what people think of them. If one reads the texts by Rachel and Stephen Kaplan, referred to by Welsch, one finds more detailed information. In their book *The Experience of Nature*, [15] where the Kaplans analyze numerous studies more carefully than in their shorter articles, [16] it becomes evident that many of the studies were actually based on a rather limited series of photographs and sometimes the number of people interviewed or otherwise studied was only in the tens. Moreover, a long section of the book deals with cultural differences between various landscape preferences and not with universal conceptions. [17] The Kaplans themselves recognize their methodological restrictions and potential. Their point of departure necessarily results in simplifications and generalizations that miss the particularity that, in turn, is the basis of aesthetic judging. For example, as objects of aesthetic judgment can be described in very many ways, the Kaplans only use a five-level scale for their preference studies.

Instead of taking only such points from the Kaplans or elsewhere to support their own ideas, philosophers should rather question the results and research procedures of empirical studies. They could ponder whether the results would be different if preferences were studied in real environments and in differing weather conditions and not with the help of photographs. And how many people should be interviewed before it is justifiable to make generalizations? The results would probably also be different depending on whether people may freely choose a landscape and their way of describing it or if they are guided to make certain choices. If free choices are made will we get aesthetic descriptions at all, and if so then who will identify them as such? Not every expression of preference is an aesthetic one. And what if especially aesthetic descriptions are asked for? What if a list of aesthetic terms is given; will they be used of the same things by different people? Analyses of such issues should be done more often and carefully than has been typical for aestheticians making use of empirical studies.

In my opinion, aesthetic issues simply have to be discussed in order to be defined, and there is no guarantee that a consensus can be found or that universal factors would be very useful in such discussions. This does not mean that a consensus would necessarily be found in, say, scientific discussions either. In them, however, many issues that often relate to measurements can be generally accepted and even verified by a certain methodology. Such scientific methods can sometimes perhaps also be used in aesthetic judgments, as parts of them, but there they have a less central role than in scientific discussions. Still, "aesthetic verifications," if we can speak of such a thing, are typically based on each evaluator's direct sense experiences of objects' particular features, not on universally agreed-upon procedures of interpreting them. In the end, however, it is difficult to say whether the difference between aesthetic and scientific judgments is an absolute one or one of degree; individual cases differ from each other. In any case, for the sake of clarifying comparison it is good to emphasize some differences between typical aesthetic judging and the sort of measuring that is often made use of in empirical research. Measuring may have to do with features of objects, as well as with the opinions of a certain human population, as was the case with the Kaplans.

First, in measuring, the right solution will be found if the measuring system is understood and the instruments and procedures work properly. A professional land surveyor can tell the exact size of a lot. Sometimes it is not even important whether the measurement is based on a representation of the object (a map) or on the actual object (the lot). Nothing like this is possible in aesthetic judgments.

Second, changing the measurer does not affect the result of measuring, unlike aesthetic judgments, which can vary to a great extent if the evaluator is changed.

Third, the result of a measurement only informs us about certain features of the object, and the objects that are on the same level and on the scale are equal from the point of view of measuring. Aesthetic judgments, in turn, may tell us about very many different features of the object. Because of this, directing action based on measurements is easier than giving aesthetically oriented orders. An order to provide a one-foot long piece of birch plank is much easier to understand than an order to provide a beautiful piece of birch plank.

Fourth, the result of a measurement does not change if one gets new information about some other aspect of the object. The size of the lot remains the same despite what might take place on it; on the other hand, aesthetic quality may well change according to associated actions. For example, a yard that at first looks good may suddenly turn gloomy and sad if one hears that extremely poisonous substances have been used in fighting the weeds.

Fifth, the unit or characteristic of an object being measured is normally clear, while it is often somewhat unclear in conversation whether one is discussing aesthetic or other features of an object. For example, one may use terminology that does not make clear whether one is making an aesthetic or some other kind of judgment. The much used term

'awesome' can mean practically anything positive, not only aesthetic success.

And lastly, in measuring one normally uses an evenly divided and hierarchical scale. The numbers tell if something is bigger, stronger, or warmer than something else and they also reveal by how much it is different. No such scale or instruments based on it exists for aesthetic judgments.

Welsch also admits in the end^[18] that universal factors are not quite suitable for explaining individual cases. There are probably cross-cultural inclinations to aesthetically value certain kinds of things, but the ways in which individual cases modify these general trends and how things may be aesthetically valued in entirely different ways must be pondered on case-by-case basis. There are no measuring tools or rules for this. Such pondering, which is typically verbal, is exactly the context in which and the tool by which a judgment is identified as aesthetic in the first place. Through it, the judgment is connected with a certain cultural tradition. This pondering itself is, at least, proto-philosophical activity: questioning, discussing, analyzing and comparing concepts, reflecting language with the help of language. Often in everyday life we simply have no other choice than to turn to it; no exact measurements and empirical studies can be done. This is why beauty still cannot be measured, but must instead be discussed and philosophized.

4. Philosophical and Non-Philosophical Views of Reception

If aesthetic judgments cannot be proved right or wrong through studying the empirical features of objects, would empirical study of receivers produce better results? Colin Martindale believes in the value of this approach and makes a comparison: "It is impossible to list the objective features shared by beautiful objects. Beauty is not in the eye of the beholder, but in the brain of the beholder."^[19]

As we saw, Welsch thinks that experiencing beauty is some sort of brain-happiness. According to him there are at least three types of this phenomenon, and these types relate both to different objects and different operational abilities of the brain developed at different stages of human evolution.

When we perceive a body or landscape as beautiful, the perception rests on the highly localized activation of a specific neural pattern. When, by contrast, we perceive forms of self-similarity as beautiful, the resonance of contiguous cortical areas produces a significantly more far-reaching activation of the cortex. The experience of great, breath-taking beauty, finally, rests on an integral activation of our entire aesthetic and cognitive architecture. Now in each of these three cases the implication is that beauty is actually brain-happiness.^[20]

Likewise, in musicology it has also often been repeated that certain sounds typically cause certain kinds of activations in the brain, and that this fact has an evolutionary basis.^[21] Hence, it can be reasoned that probably somewhat similar activations happen when we see beautiful people, enjoy a

landscape or listen to good music, even if there are variations in the activation levels between different individual cases. Seen from this point of view the experience of beauty always happens in the brain. In the end, it might make no difference if the experience is caused by an object, imagination, or a drug if only the brain is activated, i.e., certain local or more integral electrochemical changes occur.

But will the knowledge that such things happen in our brain help us understand aesthetic judgments? I stand in my backyard and claim that it looks good, and my friend disagrees. Could the disagreement be solved by finding out what happens in our brains?

The first problem is that in everyday life – where aesthetic judgments typically take place – it is not possible to find out what goes on in the brain; no more than it is possible to measure people's faces for finding out whether they are statistically beautiful. The only "method" we normally have in such situations is to discuss. I can point out some features of the yard, describe my feelings, and make references to other yards, and my friend can do the same. After some time we may agree, at least in the sense that we use the same terminology: the yard looks good. But we cannot get any further in finding out whether we really agree or disagree. There is no way we could test whether we really feel the same feelings even if we use the same words, or determine whether there are similar things happening in our brains. Even the knowledge of whether the words we use have the same positions in our own vocabularies (relate in the same ways to other words and ways of action) necessarily remains more or less unclear. How could it even be possible, in practice, to pinpoint such positions? But it is interesting that in everyday life all of these obstacles are normally not a problem and that we can manage very well with such uncertainty.

But what if we were so lucky as to have a brain scientist with her equipment quite unexpectedly come by? Could she show that one of us is right?

It is possible to compare this situation with cases studied in musicology. It is clear that music evokes strong feelings. But it is quite as clear that any particular piece of music does not have the same impact on everyone; the same piece might evoke different reactions in different listeners and leave some listeners quite cold. Compare for instance the varying impact of the music of Claude Debussy and the metal band Slayer. The experience of beauty or some other aesthetic feature is not caused by any direct, uni-linear relationship to a particular stimulus. But still, music activates the brain and such activation can be measured quite independently of the type of music. How should this be understood? Is there something here that could clarify what happens when we judge my backyard aesthetically?

What is especially interesting is that the activation of certain "pleasure zones" of the brain does not seem to be specific for experiencing musical or any other kind of beauty. Mari Tervaniemi, who worked for the above-mentioned Braintuning-project, summarizes:

It appeared that the stronger the pleasure that the

music caused, the stronger the areas of the brain (especially striatum, midbrain, amygdala as well as orbitofrontal and prefrontal cortex) that play a part in general emotional and motivational activity were activated. It could be inferred that there is no specific brain mechanism or structure for musical pleasure or musical emotions, but that there is something very similar in all emotional processes independently of the sense modality or the cause of such processes.[\[22\]](#)

It is thus the same pleasure areas that become activated when one is listening to music, having sex, eating good food or perhaps imagining big business triumphs; sometimes locally, sometimes more integrally. Unlike the description of the Braintuning-project cited at the beginning of this article, which could make one hope that "neural determinants" could be found that would be *specific* for music experiences, this is not the case, although much new information has been discovered on the emotions connected with music and on what happens in the brain as one is listening to it.[\[23\]](#)

This means that the activation of the brain that Welsch connects with beauty in particular is in fact probably not specific to it but has to do with pleasure and other positive emotions much more generally. The same is probably true of other modes of the aesthetic: ugliness, serenity, cuteness, and numerous other variations of the aesthetic do not have their own, specific brain mechanism or structure. Similar things happening in the brain are conceptualized and described in different ways in different situations. If certain objects do not necessarily result in same aesthetic judgments, neither do certain states of the brain.

This opens up further problems. First, it may be that the same things are happening in me and my friend on the electro-chemical level of our brains as we stand pondering my back yard, but we might experience and conceptualize the situation differently on our conscious level of thinking. I might think that it is pleasurable and my friend that it is less so (when compared to some other experiences), and this may result in different verbal judgments. But before this can actually be considered further, we should seek to know how exactly similar are the states of our brains. There are no two absolutely identical instances of brain development. So what is similar, where and how? And what is not? What type of similarity is relevant and why? There are, very probably, a great many possible answers, but Welsch, for example, does not deal with this issue.

Second, I may eventually arrive at a strong emotional state during our discussion of my yard, while my friend simply makes an analytical and professional analysis of the potential price of the lot if it were sold. There are probably different things going on in our brains, but does this mean that one of us is right and the other is wrong?

Third, it could also happen that we experience the electro-chemical changes in our brain as similar, as harmonic and serene, but I may value this state of mind, whereas my friend would like to have a more extreme experience. Or for some reason, and this is by no means trivial because of the social nature of aesthetic judgments, he wants to distance himself

from me and says that he disagrees even if all the things that can be measured would make one think that we should agree. He might want to impress his new friend, who is also there with us.

The most important thing to notice, however, is that in normal situations of aesthetic judging the agreement or disagreement is only perceivable and realizable in our verbal and non-verbal actions, not in our brains. We cannot observe even the internal workings of our own brain but only those things that are made explicit and brought into consciousness, typically by language and action. We simply have to discuss whether we are of the same opinion and ponder whether using the same terminology is a reliable sign of agreement and whether using different words means disagreement. Agreement and disagreement may also have to do with whether the judgment is aesthetic or of some other kind. This cannot be solved by measuring changes in the brain because there seems to be no specific brain mechanisms or structures for aesthetic judgments or experiences. Moreover, similar brain states can be connected to different culturally developed aesthetic descriptions and conceptions. By measuring it can be shown that the brain is strongly activated, but how this activation is described and how it is verbally related to a certain object in a certain context is much more important for aesthetic judging. Punk, jazz, heavy rock, chamber music, and tango probably cause similar brain states as activities as sex, a good meal, a beautiful landscape, an interesting painting and a handsome human body, but the ways in which all these are described in various situations vary widely. And it is exactly in such descriptions that aesthetics as a cultural entity lives and develops. As electrochemical events, internal brain activities remain hidden in our bodies while our verbal descriptions and explicit actions do not.

5. A Taste of Rhetoric

The ability to make aesthetic judgments and discuss them is one of the pivotal skills of human beings. It is often called "taste" and it is needed in social interaction all the time: in selecting objects, polite behavior, art, science, fashion, politics – everywhere. A wrong judgment may result in exclusion from a group; a correct one opens doors and strengthens ties to a group. Skillful use of taste affects our well-being and because, nothing, no measurement or scientific experiment, can replace it, it must continuously be rehearsed and practiced.

This ability is evaluated by others whenever we make aesthetic judgments. David Hume stated that individuals who have good taste must have "strong sense, united to delicate sentiment, improved by practice, perfected by comparison, and cleared of all prejudice" and they make their judgments with the help of these faculties. Another way to see it is that they have rhetorical skills, the abilities to speak and write persuasively and convincingly. The point is to get others to agree, not to find an absolute truth. Whether we agree or disagree can be explained by analyzing the situations where taste and rhetorical skills are used, not by measuring the states of the brain or studying our evolution.

It is also evident that taste and rhetorical skills have their own evolutionary background and are not independent of the brain

or the features of the objects discussed. Rhetoric can be studied by scientific, empirical methods, even measured.[24] However, if one tries to clarify aesthetic judgments from this perspective, one faces similar problems to those I have described above. One would thus probably be better off concentrating on studying the rhetorical uses of language from a philosophical perspective. This assertion is not a new one for aesthetics, as Ludwig Wittgenstein already suggested in approaching aesthetic issues as cultural-linguistic ones, but the approach is still useful and non-philosophical ones cannot replace it; Sibley's notions are still relevant. It is clear that the philosophy used does not have to be based on Wittgenstein's thinking. Martin Heidegger, John Dewey, Maurice Merleau-Ponty, and Jacques Rancière, for example, would open different perspectives, and sometimes it is in order to emphasize that the cultural-linguistic approach cannot only deal with written and oral language but must also acknowledge physical, bodily experiences. However, if all this is analyzed philosophically, we must necessarily use verbal language.

Different people produce different aesthetic judgments and interpretations or theories of them. From the philosophical point of view, such "meta-level" interpretations are actually very similar to judgments: they are more or less convincing conceptualizations of their objects and they are presented to other people in social interaction. They both use natural languages. Both are related to things happening in the brain and the body, but studying such material-level events does not make judgments or their interpretations understandable. Here, one has to analyze verbal language – rhetoric and individual concepts – and this is only possible with the help of this same language. This, in turn, is philosophical activity, especially if one arrives at radical questioning of traditional ways of thinking. It is quite possible that we will never achieve the final and unquestionable understanding of aesthetic judgments. We are doomed to discuss.[25]

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Endnotes

[1] <http://www.braintuning.fi/research.html> (15.6.2010).

[2] Colin Martindale, "A Neural-Network Theory of Beauty," in *Evolutionary and Neurocognitive Approaches to Aesthetics, Creativity, and the Arts*, ed. Colin Martindale, Paul Locher and Vladimir M. Petrov (Amityville: Baywood Publishing Company, Inc., 2007), pp. 181–194; ref. on p. 183.

[3] Wolfgang Iser, "On the Universal Appreciation of Beauty," in *International Yearbook of Aesthetics*, Volume 12, ed. Jale N. Erzen (International Association for Aesthetics,

2008), pp. 6–32, ref. on pp. 7 and 29.

[4] Denis Dutton, *The Art Instinct. Beauty, Pleasure, and Human Evolution*. (New York: Bloomsbury Press, 2009); Nancy Etcoff, *Survival of the Prettiest. The Science of Beauty* (New York: Doubleday, 1999); Eckart Voland and Karl Grammer (eds.), *Evolutionary Aesthetics* (Berlin, Heidelberg, New York: Springer Verlag, 2003). See also Ellen Dissanayakes publications such as *Homo Aestheticus. Where Art Comes From and Why* (Seattle: University of Washington Press, 1992).

[5] Nelson Goodman, *Languages of Art. An Approach to a Theory of Symbols* (Indianapolis: Hackett Publishing Company, 1976); *Ways of Worldmaking* (Indianapolis: Hackett Publishing Company, 1978).

[6] Aarne Kinnunen, *Estetiikka* (Helsinki: WSOY, 2000), chapter III.

[7] Simo Säätelä has written an interesting interpretation of aesthetic reactions: *Aesthetics as Grammar. Wittgenstein & Post-Analytic Philosophy of Art* (Uppsala: Uppsala University, 1998) but even he does not understand them as simple stimulus-reaction events but as intentional actions that can be almost automatic.

[8] Frank Sibley, "Aesthetic Concepts," in *Philosophy Looks at the Arts. Contemporary Readings in Aesthetics* (Third Edition), ed. Joseph Margolis (Philadelphia: Temple University Press, 1987), 29–52, ref. on p. 31–32. I don't take a stand on the question of whether aesthetic concepts are descriptive, evaluative or something else. For a rather new account on this see Roman Bonzon, "Thick Aesthetic Concepts," *The Journal of Aesthetics and Art Criticism* 67:2 (2009), 191–199.

[9] Frank Sibley, "Aesthetic and Nonaesthetic" in Frank Sibley, *Approach to Aesthetics. Collected Papers on Philosophical Aesthetics* (Oxford: Clarendon Press, 2001), 33–51, ref. on page 35.

[10] Kendall L. Walton's well-known analysis of categories of art could further illuminate the importance of context but the issue cannot be dealt with here. See his "Categories of Art," in *Philosophy Looks at the Arts. Contemporary Readings in Aesthetics* (Third Edition), ed. Joseph Margolis (Philadelphia: Temple University Press, 1987), 53–79.

[11] Welsch, "On the Universal Appreciation of Beauty." See also publications mentioned in endnote 4.

[12] Etcoff, pp. 134 and 141.

[13] Randy Thornhill, "Darwinian Aesthetics Informs Traditional Aesthetics," in Eckart Voland and Karl Grammer (eds.), *Evolutionary Aesthetics*, pp. 9–35, ref. on pp. 27–31.

[14] Olaf Breidbach, "The Beauties and the Beautiful – Some Considerations from the Perspective of Neuronal Aesthetics," in Eckart Voland and Karl Grammer (eds.), *Evolutionary Aesthetics*, 39–68, ref. on p. 62. The concept of sublime is related to this question, too, but because of its complexity it would need its own essay.

[15] Rachel Kaplan & Stephen Kaplan, *The Experience of Nature. A Psychological Perspective* (Cambridge: Cambridge University Press, 1989).

[16] Stephen Kaplan, "Environmental Preference in a Knowledge-Seeking, Knowledge-Using Organism," in *The Adapted Mind. Evolutionary Psychology and the Generation of Culture*, ed. Jerome H. Barkow, Leda Cosmides, and John Tooby (Oxford: Oxford University Press, 1992), pp. 581–598.

[17] Kaplan & Kaplan, pp. 72–116.

[18] Welsch, pp. 27–28.

[19] Martindale, p. 183.

[20] Welsch, p. 25.

[21] Steven Mithen, *The Singing Neanderthals. The Origins of Music, Language, Mind and Body* (London: Phoenix, 2006); Timo Leisiö, "Musiikin yhdeksän evoluutiota," *Tieteessä tapahtuu* 1/2010, pp. 3–15.

[22] Mari Tervaniemi, "Miksi musiikki liikuttaa?" *Duodecim* Vol. 125 (2009), pp. 2579–2582, ref. on p. 2581. Originally in Finnish, translation by the author.

[23] Some new studies refer to the possibility that some music-related emotions may have different brain-level basis than some others but the results are still uncertain; Stefan Koelsch, "Towards a Neural Basis of Music-evoked Emotions," forthcoming in *Trends in Cognitive Sciences*. This does not mean, however, that all emotions would have their specific brain structure and mechanism or that all aesthetic judgments or concepts would have theirs. According to some other recent studies it is disputable whether music has its own evolutionary background at all; Aniruddh D. Patel, "Music, biological evolution, and the brain," forthcoming in *Emerging Disciplines*, ed. C. Levander & C. Henry (Houston: Rice University Press, 2010).

[24] George Lakoff and Mark Johnson have used results of neurolinguistics in their studies of language usage and rhetoric in their *Philosophy in the Flesh. The Embodied Mind and Its Challenge to Western Thought* (New York: Basic Books, 1999).

[25] I thank Yrjänä Levanto, Risto Pitkänen, Mari Tervaniemi as well as the anonymous referee of *Contemporary Aesthetics* for commenting the manuscript at its earlier stages.