

# Science and Metaphysics Part I

## Scientific Art Appreciation?

By

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### **Abstract**

*Ignorance of the mind aspect of humans is identified as the major factor that limits application of science in art appreciation. It prevents scientific art appreciation. The argument is developed through two areas: work of art and aesthetic experience.*

*The work of art part consists of Morris Weitz's Anti-Essentialism argument and the Essentialism arguments of Margaret Macdonald (Physicalism view) and the three Non-physicalism views of Bernard*

*Bosanquet (Idealism view), Plato (Abstract Entity view), and Monroe Beardsley (Phenomenalism view).*

*Aesthetic experience part includes Kingsley Price's Objectivism, George Santayana's Subjectivism, and Edward Bullough's Psychological Distance.*

### **1. Introduction**

This is the first of a series of four papers, which contend that science is incapable of resolving arguments in

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metaphysics. Science has generally ignored the mind aspect and concentrated on the material aspect of things, including humans. This limits application of science to metaphysics. The limitation of science in aesthetic appreciation is examined in this paper.

As mentioned above, science is blind to the mind aspect of living entities. This is the major limiting factor to scientific art appreciation. Although all of us know the mind exists, professional acceptance was only when philosophy developed and of course, the base became strong when psychology flourished.

But then philosophies differed. Western and some Asian philosophies consider a body and soul (also called **atman** or **atta**) makes an entity. But Buddhist philosophy says a living entity consists of body (**rupa**) and mind (**nama**). Nama is different from a soul. In this document, it is shown that negligence of mind in science limits or even prevents scientific art appreciation.

There are many questions on aesthetics or the philosophy of art. Questions such as:

- (a) **The artist** – his nature and role? – To create, to put across ideas to the audience (manipulate or modify ideas), to show the truth, or to express emotions or ideas?
- (b) **The work of Art** – can it be defined? Shall it be beautiful, pleasurable, and honest? Is it

physical or not? Must it succeed in some special way?

- (c) **The audience – art appreciation**, is it limited to humans? Is a certain attitude required? What is necessary to make an experience aesthetic? Why is it different from sex, religious or political experiences? Aesthetic judgment – what is it?

Is science capable of tackling these questions? Focus on two themes: what is a work of art and the aesthetic experience, shall reveal science's capability in art appreciation.

## 1.1 Work of Art

There are two general views on work of art, **Anti-Essentialism**, which says works of art *cannot* be defined, shown by Morris Weitz's argument<sup>1</sup>, and **Essentialism**, which says works of art can be defined.

There are two forms of essentialism: (i) **Physicalism** or **Materialism**, which says that the work of art is essentially physical (Margaret Macdonald's view<sup>2</sup>) and (ii) Three **Non-physicalism** views, which say that the work of art is essentially non-physical (a) Bernard Bosanquet's *Idealism* view<sup>3</sup> (Art is essentially an idea), (b) Plato's *Abstract Entity* view<sup>4</sup>, and (c) Monroe Beardsley's

*Phenomenalism* view<sup>5</sup> (work of art exists in the experience of it).

An aesthetic experience means to experience art as art, and nothing else: for example, not as a doorstep or a patch for a hole in the wall. But the experience is certainly different from experiences in sex, religion or politics.

What makes an experience aesthetic? *Objectivism* says object is the cause (Kingsley Price<sup>6</sup>), *Subjectivism* says the subject or person having the experience is the cause (George Santayana<sup>7</sup>), and *Psychical Distance* says a special relationship between the object and subject is the cause (Edward Bullough<sup>8</sup>).

The weakness of science that prevents or limits it from art appreciation is discussed with reference to the above themes.

## 2. Living Entity – Mind and Body<sup>9</sup>

The living entity is definitely made up of mind and body. Western philosophy considers the mind as a soul, a separate entity that lives forever, inside the body. Some Asian philosophies call it *atman* (from which the regionally popular term “*atta*” is derived) and believe it migrates from body to body, life after life.

But Buddhist philosophy has a different view. It says all living entities

have a body (a material component called *rupa*) and mind (an energy component called *nama*). The latter is not a timeless constant like the soul. It appears, exists momentarily, and disappears TOGETHER WITH RUPA. What is this *nama*? It is consciousness. How is it produced? This is discussed in the next section. Buddhism also considers the body as a fluctuating thing. The matter component, the body, in the microscopic detail is made up of extremely tiny units of matter called **kalapa**. These appear, exist momentarily, and decay off, together with their associated energy component, *nama*.

### 2.1 Sensations – How are They Produced?

According to Western Philosophy, the body receives the stimuli and the soul senses them. This is a well-known concept and does not need further explanation. Buddhist philosophy is different. Sensations occur when there is an interaction between an external stimulus and one of our internal sensors, inside the body. The interactions involve the **material component**, which is the physical body and includes the sensors (eye, nose, ear etc.) called **rupa khanda (matter or mass entity)** and the **functional component** called **nama khanda (mind or energy entity)**. The latter, *nama khanda* or energy entity, consists of four functions – the four *namakhandas*:

- (1) **vedanakhanda** - sphere of feeling
- (2) **sannakhanda** - sphere of initial sensation (recording or memory)
- (3) **sankharakhanda** - sphere of sustained sensation (or activity sphere)
- (4) **vinanakhanda** - sphere of recognition (consciousness)

These four functions are seen to be analogous to the four functions of all physical sensing devices:

- (1) **detection**
- (2) **data logging and recording,**
- (3) **data processing and matching (memory search)**
- (4) **output.**

Every being is made up of the above four nama khandas and one rupa khanda. The **cause**, interaction of external stimuli and the internal rupa khanda sense organs, leads to two types of **effect**: consciousness effect and response effect. A stimulus-sensor interaction (cause) results in consciousness (effect). It may be called the **stimulus - consciousness pair**. Feed back of this consciousness causes a response, the effect. This may be called the **consciousness - response pair**.

Consider consciousness effect first. Interactions between rupa khanda (sensors – eye, ear, etc...) and external stimuli develop various sensations, which are composed of the series of the four nama khandas: **vedanakhanda** → **sannakhanda** → **sankharakhanda** → **vinanakhanda**, figure 1. The interactions are the **cause** and consciousness of the sensation or **vinanakhanda** is the final result or **effect**. Category-wise, rupa khanda is the cause and nama khanda is the effect. Let us refer to this as the “**consciousness series**”.

Now consider the other type of effect, the response effect. Feedback of consciousness, the final result in the above consciousness series, creates the “**response series**”: **vinanakhanda** ⇒ **vedanakhanda** ⇒ **sannakhanda** ⇒ **sankharakhanda**, just like in a robot mechanism, figure 1. The last item or activity function, decides a response. Consciousness of sensation or **vinanakhanda** is the **cause** and response is the **effect**. Category-wise, nama khanda is the cause and rupa khanda is the effect. The output or effect is via the rupa khanda figure 1, you smile when you experience pleasant sensations and frown when you meet disagreeable ones.

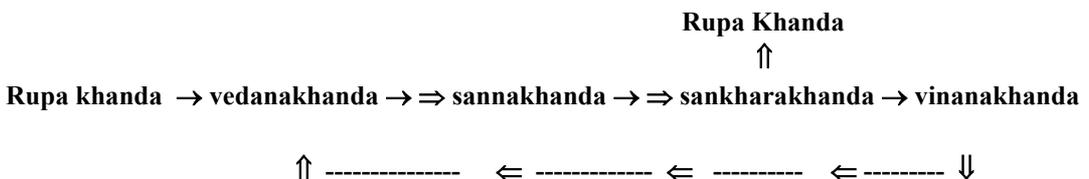


Figure 1. Consciousness series (→) and response series (⇐)

The existence of the two cause and effect processes, rupa → nama and nama → rupa, show that rupa and nama is a connected, dynamically interactive system, with interactions at all times. There are six kinds of such interactive systems, corresponding to the six kinds of sensors: sight, hearing, taste, smell, touch and thought. If one or more of these is present then the being is alive, if not it is dead. Note that thought is considered as a sensation.

The stimuli are not permanent, they appear, rise, decay and disappear. Hence the stimuli-sensor interactions are also impermanent. Since the causes are impermanent the effects, consciousness and responses, are also impermanent. They appear (birth), rise (mature), decay (age) and disappear (death) at each stimulus - sensor interaction.

Quantum mechanics, an advanced science discipline, says **wave and particle is the same thing with different emphasis**. This is called **wave-particle dualism**. The two pairs, wave-particle and nama-rupa, are both **energy-mass** pairs. Particle and rupa, exist in time-space continuum, and are **mass components**; whereas wave and nama, exist in time only, and are **energy components**. External stimuli can act either as a wave or as a particle. Thus two types of interactions can be identified: **particle - sensor interaction** or **wave - sensor interaction**. Sensations can be caused by either kind of interaction. Touch, smell and taste

sensations are caused by particle-sensor interactions. Sight, hearing and thought, are caused by wave-sensor interactions. Both appear, exist momentarily, and decay off. All six sensations are impermanent. They appear (birth), rise (mature), decay (age) and disappear (die). We are therefore alternately living and dying at every moment. This cycle is called **samsara**, a never-ending process that carries on even after one existence ends and another starts.

### 3. Art Appreciation – Aesthetic Experience

#### 3.1 Work of Art

**3.1.1 Morris Weitz.** He supported *anti-essentialism*. His argument is:

- (i) For an object to be defined, a set of necessary and sufficient conditions is needed.
- (ii) No such set exists for art. This means, the art concept is “open”. Conditions may be set for defining all of the art that exist now. But a new type of art can always appear – one that does not fit in or meet these conditions.
- (iii) Therefore, art cannot be defined.

He briefly surveyed some famous aesthetic theories, such as The Formalist theory propounded by Bell and Fry, Emotionalist, Intuitionist

(Croce's version), Organicist, and The Voluntarist theory of Parker. Then he concluded, "Now all of these sample theories are inadequate in many different ways. Each purports to be a complete statement about the defining features of all works of art and yet each of them leaves out something which the others take to be central." "the very expansive, adventurous character of art, its ever-present changes and novel creations, makes it logically impossible to ensure any set of defining properties"- **Morris Weitz, "The Role of Theory in Aesthetics"**<sup>1</sup>

Consider a set of conditions that all works of art must have to be works of art. Further more put the constraint that the set of conditions must apply only to art and nothing else. Weitz's second premise that says art is an "open" concept means that such a set of conditions does not exist, as it cannot be found.

Factors such as beauty, entertainment value, expression of emotion, and creativity may seem to be such a condition that all works of art must have. But each of these could be applied to non-art work too, such as a lovely woman or a beautiful countryside. So they cannot be the correct set of conditions. Also they may not apply to some works of art, such as an ugly painting. Hence such conditions do not exist.

Consider beauty, emotion, etc. These are certainly responses to stimuli.

Thus the response effect type of stimuli- sensor interaction (response series) operates. Sankharakhandha or the sphere of sustained sensation was mentioned as being equivalent to data processing and matching (memory search) in physical sensors. Thus matching with previous experience is a step prior to cognition or consciousness (vinnakhandha). Hence the response, whether beauty or ugly, like or dislike, is more or less based on previous experience that has set one's idea of beauty, etc. Thus the nama or mind component is very much present. Science has neglected the mind and has therefore barred itself from art appreciation.

**3.1.2 Margaret Macdonald.** Her *physicalism* argument is:

- (i) Art can be experienced only through the senses.
- (ii) Only physical or material things can be experienced by the senses.
- (iii) Hence, works of art are essentially physical or material.

The first premise is controversial. If a painting or sculpture is only *imagined*, nothing has been created. Both hands and head are needed to create a painting or a sculpture. Since there is nothing, the work cannot be experienced via the senses. It is nonsense to claim the work is art. And also nonsense to claim that person is a painter or a sculptor.

*"An imaginary picture or statue just isn't a picture or statue because*

*these words stand for works which need hands as well as heads to bring them into existence. This may not be quite so clear for other works of art.* "there might be an excuse for saying that some composition, e.g., in literature and music, is internal. That it occurs "in the mind" or "in imagination." - **Margaret Macdonald, "Art and Imagination"**<sup>2</sup>

Thus composing a tune or story in the imagination is okay – no hands are needed to create the tune or the story, so it makes sense. Something has been created, like creating something in the virtual world. It is a work of art experienced via the imagination – not through the senses.

Western philosophy will argue that composing a tune "in the head," means the work of art need not be physical or material. It is just "imaginary" and therefore does not exist. However Buddhism considers thought as a sense, just like sight, taste, etc. It identifies a "thought object" called "**mano aramana**" that causes the effect "thought sense" called **mano vinanna**. Just like sight, **cakku vinnana** is induced by sight object, **cakku aramana**; or taste, **ziwa vinnana** is caused by taste object, **ziwa aramana**.

Whatever it is, Macdonald in her first premise says that art can be experienced only through the senses. Sensations are stimuli-sensor interactions, involving the consciousness effect type, where

consciousness is produced at the final step (consciousness series). Science is blind to such interactions and thus it cannot be used to experience art.

**3.1.3 Bosanquet.** His argument for idealism:

- (i) The feeling or idea it embodies, and not the medium (like wax, iron, and paper) that embodies it, is the distinctive characteristic of a work of art.
- (ii) This feeling or idea is not physical or material.
- (iii) The work of art needs a medium, just as a soul needs a body.
- (iv) Therefore, a work of art is essentially an idea that is embodied in a physical medium - a feeling got into an object.

*"All this later argument of ours, starting from the importance of medium and technique has aimed at ... the double process of creation and contemplation which is implied in the aesthetic attitude, and the impossibility of separating one factor of it from another....This is the central problem of the aesthetic attitude; ..."* "The point of the aesthetic attitude lies in the adequate fusion of body and soul, where the soul is a feeling, and the body its expression,...." - **Bernard Bosanquet (1848-1923), Three Lectures on Aesthetic.**<sup>3</sup> Thus Bosanquet views aesthetic attitude as contemplation or feeling (via the soul) placed or embodied in the creation (using the body).

The weakest is the first premise. Why must a feeling or idea be “embodied” for something to be a work of art? Why can’t a feeling or idea be sparked in someone else? Such as a sunset or a piece of driftwood sparking enjoyment as a work of art. Or, according to Weitz a work of art may not have anything to do with a feeling or idea.

The first premise includes feeling or idea. The second premise says this feeling or idea is not physical or material. Mind or *nama* is central here. Hence science does not have the essentials to experience art according to Bosanquet’s view.

### 3.1.4 **Plato.** His argument for *Abstract Entity*:<sup>4</sup>

- (i) Essentially, an experience of the artist is the work of art.
- (ii) This experience is not limited to the artist’s idea or consciousness. E.g., even though Beethoven, the composer, no longer exists (to have an idea of it), his music, Beethoven’s 5<sup>th</sup> Symphony still exists.
- (iii) Such experience is not a physical thing.
  - There is only one Beethoven’s 5<sup>th</sup> Symphony.
  - But there are many performances and recordings of it.
  - Thus physical representations and the work itself are not the same.

- (iv) Hence, the work of art is neither mental nor physical, but a third thing.

What is this third thing? Surely it’s something tied to past experiences. Hence the *sannakhanda* or datalogging (recording or memory) step of the sensation series is involved. Science knows nothing of this mind process, and is thus not fit for art appreciation according to Plato’s view too.

## 3.2 **Aesthetic Experience**

3.2.1 **Kingsley Price.** Supporting *objectivism* says the object is the cause of the aesthetic experience. His argument is:

- (i) To every experience, there are two parts: *awareness* and an *object* of awareness.
- (ii) Awareness does not differ in kind from one experience to the next.
- (iii) So the distinguishing characteristic of any experience must be in its object.
- (iv) Therefore, what makes an experience aesthetic is that, it is the experience of an aesthetic object.

Intuition tells us that Price’s view seems faulty. With reference to “experience of an aesthetic object” mentioned in premise (iv), the experience can be different even if the aesthetic object is the same. In other

words, the same object can produce different experiences.

As an example, consider two people in a cathedral attending mass. They are experiencing the same things, such as music, incense and general surrounding. But one may be having a religious experience and the other may be having an aesthetic experience. Thus they are experiencing the same objects. But they are having different experiences of those objects. Thus “experience of an aesthetic object” is not definite. It can vary from person to person. Thus what seems a nice work of art to one may seem an ugly rubbish to another.

Another example is: *“Despite a myriad alien sounds and a cold draft from the air conditioning plant, Jones sits in the concert hall, listening, wide-eyed and alert. He is having an aesthetic experience of the music. Smith walks from room to room, examining things attentively, and making notes in his notebook. He draws the floor plan, and then alters it in several ways. He writes down an asking price. He is having a practical experience of the building that is for sale.”* - Kingsley Price - **“What Makes an Experience Aesthetic?”**<sup>6</sup>.

Thus the “experience of an aesthetic object” mentioned in premise (iv), may be different to different persons. This shows that past experience and present emotional state can influence that experience. Hence the memory step and the response effect

interaction (response series) are important here. Because of this science cannot operate in art appreciation.

3.2.2 **George Santayana.** Supporting *Subjectivism* says the subject or person having the experience is the cause of the aesthetic experience. His argument is:

- (i) Experience of beauty is aesthetic experience.
- (ii) Beauty is pleasure objectified.
- (iii) Pleasure objectified is the attribution of subjective pleasure to the object of that pleasure.

“Pleasure objectified,” means that when something is regarded as beautiful, it is believed the beauty is in the object. But it is really in the subject – the eye of the person seeing the object (the subject’s mind decides it is beautiful). This is seen in his statement: *“we think those beauties are in the object, like its color, proportion, or size.... **Beauty...is a value: it cannot be conceived as an independent existence which affects our senses and which we consequently perceive.**”*

*“Most of the pleasures which objects cause are easily distinguished and separated from the perception of the object: the object has to be applied to a particular organ, like the palate, or swallowed like wine, or used and operated upon in some way before the pleasure arises ... and consequently is at once recognized as an effect and not as a quality of the object.*

*But when the process of perception itself is pleasant ... then we have a pleasure intimately bound up in the thing, ... the seat of which in us is the same as the seat of perception. We naturally fail, under these circumstances, to separate the pleasure from the other objectified feelings. ... giving it the name of beauty.”- George Santayana (1863-1952), **The Sense of Beauty**.<sup>7</sup>* Thus Santayana views beauty as pleasure bound in perception. Perception is through the mind of a person (subject). Therefore it involves all the steps in sensation, and excludes science being used for art experience.

**3.2.3 Edward Bullough.** Supporting *Psychical Distance* says a special relationship between the object and subject is the cause of the aesthetic experience. His argument is:

- (i) An object to experience is needed to have aesthetic experience.
- (ii) A subject to experience is needed to have aesthetic experience.
- (iii) Thus, a certain relationship between object and subject must exist to have aesthetic experience.

If a person (subject) is too interested in a work of art, then he will be psychically too close to appreciate it aesthetically. If a person is too uninterested in a work of art, then he will be psychically too distant from the object to appreciate it aesthetically.

Bullough says distance may be according to the person, or according to

the subject (the art object). Further he advises minimum possible distance, and discusses “under-distancing” and “over-distancing”. This is seen in the following quote: “*Distance may be said to be variable both according to the distancing-power of the individual, and according to character of the object. ... both in appreciation and production, what is most desirable is the utmost decrease of Distance without its disappearance.*”

There are two ways of losing Distance: either to “under-distance” or to “over-distance.” “*Under-distancing*” is the commonest failing of the subject, an excess of Distance is a frequent failing of Art, especially in the past.” - **Edward Bullough, “‘Psychical Distance’ as a Factor in Art and an Esthetic Principle”<sup>8</sup>**

Edward Bullough’s view is intended as a remedy for the shortcomings of objectivism and subjectivism. He cites Shakespeare’s *Othello* - a play about a jealous husband who wrongly accuses his wife of being unfaithful. Consider someone who has recently caught his wife committing adultery. He is too close to this story to appreciate it as a work of art. Now consider someone who is not familiar with Shakespearian tragedy or language. He is too distant from this story to appreciate it as a work of art.

For someone to experience *Othello* aesthetically, the right psychical distance from the work of art has to be

developed: Not too interested. Not too disinterested.

The major problem is: How does one know when the right psychological distance is achieved? Bullough's answer: "*When your experience is aesthetic.*" Again how does one know when it is aesthetic? "*When you have achieved just the right distance.*" Going in circles!

The third premise says a certain relationship between object and subject must exist to have aesthetic experience. That relationship may be too close or too far, as mentioned above, and certainly involves memory of past experiences. Hence the memory step of the sensation series is very prominent. Thus science cannot be used according to Bullough's view too.

#### 4. Conclusion

Since science has neglected the mind aspect of things, it cannot possibly be useful in defining, experiencing or appreciating art. Scientific art appreciation does not exist.

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#### Reference

1. Morris Weitz. "*The Role of Theory in Aesthetics*". *Journal of Aesthetics and Art Criticism* 15.1(1956): 27-25.
2. Margaret Macdonald. "*Art and Imagination*". *Proceedings of the Aristotelian Society*, 8(1952-53): 205-26.
3. Bernard Bosanquet. "*Three Lectures on Aesthetic*". First published in 1915 by Macmillan. <http://www.britannica.com/eb/article?eu=82966>
4. Plato. Translated from the Greek by Benjamin Jowett, 1875? (Jowett died in 1893). <http://www.epistemelinks.com/Main/TextName.asp?PhilCode=Plat>
5. Monroe Beardsley. "*Aesthetics: Problems in the Philosophy of Criticism*". First edition, Harcourt, 1958. Second edition, Hackett, 1981.
6. Kingsley Price. "*What Makes an Experience Aesthetic?*" *British Journal of Aesthetics* 19(1979): 131-43.
7. George Santayana. "*The Sense of Beauty*" Originally published in 1896. <http://www.epistemelinks.com/Main/journals.asp?PhilCode=Sant>

8. Edward Bullough. “*Psychical Distance’ as a Factor in Art and an Esthetic Principle*”. *British Journal of Psychology* 5 (1913). Reprinted in “*A Modern Book of Esthetics*”. 3rd ed. Ed. Melvin Rader. NY: Holt, 1961. 394-411.
  9. David Tin Win. “Life - Death And Deliverance-A Scientist’s View”. To be published.
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