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The Indeterminacy of Images:
An Approach to a Phenomenology of the Imagination

1. Is the Lockean concept of "abstraction" to be saved?

J. Locke's thesis, that the meaning of a word is an idea in the mind, is now quite unpopular. In particular, his thesis about general or abstract ideas has been very strongly criticized. But let's take a look at the famous passage where he talks about the process by which general ideas are appropriated.

> The use of words then being to stand as outward marks of our internal ideas, and those ideas being taken from particular things, if every particular idea that we take in should have a distinct name, names must be endless. To prevent this, the mind makes the particular ideas received from particular objects to become general; which is done by considering them as they are in the mind such appearances, separate from all other existences, and the circumstances of real existence, as time, place, or any other concomitant ideas. This is called ABSTRACTION, whereby ideas taken from particular beings become general representatives of all of the same kind; and their names general names, applicable to whatever exists conformable to such abstract ideas. Such precise, naked appearances in the mind, without considering how, whence, or with what others they came there, the understanding lays up (with names commonly annexed to them) as the standards to rank real existences into sorts, as they agree with these patterns, and to denominate them accordingly. (Locke 1959, Book II, Chap. XI, p. 9.)

Locke names here the process of the separation and isolation of ideas

from their circumstances "abstraction" and regards it as a method by which general ideas are produced. Locke's main interest lies in the problem of the meaning of general names. But if we leave the problem of the meaning of language aside and focus on the problem of the process of "abstraction," we find we must first consider why and how it is possible for particular ideas to become general through the process of separation and isolation. But Locke himself does not give this question any particular consideration, and others have attacked his abstraction thesis only with regard to the ontological status of general ideas.

According to Berkeley, although we can imagine a hand or an eye by itself, separated from the rest of the body, whatever hand or eye we imagine always has some particular shape and color, and doesn't become general (cf. Berkley 1910, Introduction X). Moreover, however hard we may try, it is impossible to have an idea of a triangle "which is, neither oblique, nor rectangle, equilateral, equicrural, nor scalenon, but all and none of these at once" (Berkley 1910, Introduction XIII).

And according to Hume, as "the mind cannot form any notion of quantity or quality without forming a precise notion of degrees of each," not only impressions, but also ideas, which are weaker impressions, always have determinate quantities and qualities. In addition to this, as everything in nature is individual, and as what is absurd in nature is also absurd in the mind, so "abstract ideas are, therefore, in themselves individual, however they may become general in their representation" (Hume 1911, Book I Part I, Sec. VII).

Notwithstanding repeated criticisms of this sort, we cannot disregard their common sensualistic presupposition, that what is in the mind is ontologically not different from what is in nature. When we put this sort of reification of ideas into epoche and take into consideration the "phenomenological" status of ideas, i.e., the way of givenness of ideas, the traditional criticism immediately seems to lose its persuasive power. For example, let's follow Locke and imagine a triangle in such a way that it is separated from its circumstances. At least for me, it is impossible to determine the definite position of the imagined triangle in my imaginary space. The length of its sides and the degree of its angles are vague and "move" unsteadily. The triangle appears, now equilateral, and now isosceles, and a slight effort of imagination can make it right angled. It is precisely this unsteadiness and indeterminacy of appearance that Husserl refers to as "*Proteusartig*" and by which he distinguishes the way of appearance in imagination from that of thing-perception and picture-perception (Husserl 1980, p. 58f). Another phenomenologist, Jean-Paul Sartre, based his famous concept of "quasi-observation" on this indeterminate character of imaginary appearance (Sartre 1940, p.20ff). "*Avoir vaguement conscience d'une image, c'est avoir conscience d'une image vague. Nous voilà bien loin de Berkeley et de Hume, qui déclarent impossibles les images générales, les images indéterminées*" (Sartre 1940, p.36).

In this way we arrive at our first hypothetical answer to our question concerning the Lockean concept of abstraction; that is, a type of imagination, in particular the imagination of isolated objects, makes the way of appearance (*Erscheinungsweise*) of objects indeterminate and at the same time, this indeterminacy gives the way of appearance a kind of generality. Namely, it is the indeterminacy of images that mediates between the particularity of "ideas" and the generality of "ideas." These answers, however, are not only hypothetical but also problematical. First, it remains entirely unclear whether there is an essential relation between the isolatedness and the indeterminacy of images. Second, what is more problematic is the relation between the indeterminacy and the generality of images. There are already many objections concerning this point. William James, for example, sharply criticized the sensualists, pointing out that they overlooked the indeterministic character of images, because they were "blinded by apriori theories to the most fragrant fact" (James 1950, p. 46). But on the other hand, James criticized Huxley's identification of indeterminate images with abstract or general images in the following way:

> In other words, a blurred picture is just as much a single mental fact as a sharp picture is; and *the use of either picture by the mind to symbolize a whole class of individuals is a new mental function*, requiring some other modification of consciousness than mere perception that the picture is distinct or not. (James 1950, p. 49).

Recently, J. Bennett, J. L. Mackie and G. Pitcher also have pointed out the indeterministic character of images, but at the same time they have emphasized that the origin of the indeterminacy of images and that of the generality of ideas are different because the indeterminacy of

images is limited in comparison to the generality of ideas ("Is it possible to have an indeterminate image of the animal, which covers from earthworm to giraffe?") (Bennett 1971, p. 39ff; Mackie 1976, p. 123ff; Pitcher 1977, p.70f).

Husserl himself has criticized one of the modern Humeans, H. Cornelius, saying that he has confused the impreciseness and blurredness of images with the generality of ideas, which belongs, according to Husserl, to a new mode of consciousness or a new act character. (Husserl 1984, p. 215f).

From this critical point of view it becomes clear that the Sartrean thesis of the identification of indeterminate images and general ideas cannot be taken without limitation. It is rather because Sartre saw the essence of imagination in the sphere of thinking that he could directly identify the indeterminacy and the generality of images. To be sure, Sartre has made a cautious distinction between pure thought and imaginative thought, but as the essence of the imagination is taken as the free, spontaneous act of consciousness in sharp contrast to sensation, imagination is considered as belonging to the realm of thought, which is fundamentally distinct from perception and free from the ontological realm of things. In this sense, what is thematized as the indeterminacy of images by Sartre cannot be seen as the peculiar generality of images as such.

As a result of the above considerations, there seem to be only three possible ways to think about the relationship between the indeterminacy and the generality of images. The first possibility is the sensualistic view, according to which both the indeterminacy and generality of images are denied. The second possibility is the view of James and others, according to which the indeterminacy of images is admitted but not the generality *). The third is the Sartrean view, according to which both are admitted, but only as the character of thought. If there are only these possibilities, the attempt to find some important hints concerning the character of images in the Lockean concept of abstraction is destined to fail from the beginning.

*) It must be noticed that James on the other hand criticized the dualistic distinction between image and thought and emphasized that image and thought are two modes of feeling. "Concept and image, thus discriminated through their objects, are consubstantial in their inward nature as modes of feeling" (James 1950, p. 479).

But this way of thinking comes not from focusing on the way of appearance in the imagination itself, i.e., the phenomenological dimension of imagination, but rather from presupposing the dualistic distinction of sensuality and understanding, or intuition and concept, together with the distinction between the individual and the universal. If we presuppose this kind of dualistic distinction, we cannot escape from the traditional view of imagination as either perception of mental pictures or conceptual thinking, and in both cases it is out of question to seek the sense of indeterminacy of images in the phenomenological dimension.

Surely it seems to be impossible to relate the indeterminacy of images directly to their generality. Husserl has clearly demonstrated in the *Logical Investigations* that we need a kind of mental shift and a new mode of consciousness in order to objectify a general object such as species. But this does not at all mean that there is no problem in the process of acquiring the new mode of consciousness in which general objects are constituted. Husserl's later thought concentrated on analyzing this process, which he called "free variation," and emphasized that there is an essential relationship between free variation and imagination. The possibility that indeterminacy plays an important role in the process of "eidetic reduction" is not excluded, if we put traditional dualistic distinctions concerning images into epoche.

In the following I would like to examine the above mentioned hypothesis, first, concerning the relation between the isolatedness and the indeterminacy of images; second, concerning the relation between the indeterminacy and the generality of images; and third, concerning the special characteristic of the generality of images in contrast to the generality of pure concepts.

2. How do images become determinate?

What do you do, if you are asked how many windows your house has?

There are no doubt many possible ways to find out, but surely, to represent your house in your mind and to count its windows is the easiest way. But if the image of your house remains vague and indeterminate, then, as Sartre says, you cannot "observe" and enumerate its windows.

Then how can you make the images determinate? I think the surest way is to walk around in your house and, if necessary, outside your house in your imaginary world, exactly as you would do in the perceptual world. Moving your own body makes the images determinate, or at least, more determinate than before.

This close relation between the bodily movement and the characteristic of imaginary appearances has been emphasized by numerous psychologists. The Japanese psychologist Sasaki has coined the term "empty writing" ("*kusho*") to explain a habit we Japanese have, when asked about the form of a difficult Chinese character (*kanji*) or about the spelling of an English word, of unconsciously moving our forefinger in the air or on the palm of the hand, in order to bring the required form or spelling clearly into consciousness. Sasaki has demonstrated that this "empty writing" has a clear and positive effect on the formation of images (Sasaki 1987, p.89ff). Another Japanese psychologist, Miyazaki, proposes the interesting terms "imaginary self" and "point of view activity." According to Miyazaki, "the cognizer generates imaginary selves as his other self, and makes them act in many ways. The imaginary self, for example, moves to places to which the actual self can not move in order to generate the appearance of the world from these places… The activities of the imaginary self are analogous to the activities of the actual self. As in the cognitive activities of the actual self, the imaginary self's activities involve whole body parts" (Miyazaki 1988, p. 1f).

The similarity between perception and imagination, especially the similarity regarding the meaning of bodily movement in the pursuit of perceptual and imaginary cognition, was already discovered at the beginning of this century by a Polish psychologist, Jacob Segal. Segal's main thesis is that the imagination is not a passive process, in which the subject has images, but an active process, in which the subject acts (*handeln*), moving and traveling (*wandern*) through the imaginary world and interacting with the objects of the imagination (Segal 1916). This was first shown in an experiment in which subjects were asked to imagine objects corresponding to a stimulus-word. In most cases subjects reported that they had to move to the place where the objects were. Second, in the "travel experiment" ("*Wanderversuch*") the active character of imagination was explicitly shown. Segal describes this character in the following way.

Die Versuchspersonen versicherten, daß der Ablauf des ganzen Prozesses [im Wanderversuch] große Analogie besitzt erstens mit den Träumen und zweitens mit ihrem Verhalten während des Phantasierens, des Wachträumens. So können wir behaupten, daß dieses Wandern in der Vorstellung als ein Typus dessen gelten kann, was wir Phantasietätigkeit nennen und daß daher diese Versuchsanordnung uns dem Verständnis der Phantasieprozesse näher bringen kann. Denn phänomenologisch betrachtet ist Phantasieren, wie wir schon hervorgehoben haben, nicht ein Haben von Bildern, sondern ein Handeln, ein Betätigen verschiedener seelischer Funktionen in den vorgestellten Situationen. (Segal 1916, p. 470.)

When we use the vocabulary of contemporary cognitive psychology, this traveling experiment could be seen as an example of using a "cognitive map." The cognitive map is often considered as a kind of memory image, which we "see" with our mental eyes when we use it. What Segal impressively demonstrated, was that we do not "see" the cognitive map but rather we move "in" it and only through this moving process do various objects come to appear imaginatively. From these reports of psychologists, we can come to an alternative view of imagination, free from the dualistic presupposition. The imagination is neither a "seeing" of a mental picture with the so-called "mind's eye" nor a conceptual thinking, but rather a kind of action, and above all a bodily action. Imaginative space is essentially kinesthetic just as perceptual space is.

The kinesthetic character of imagination is also pointed out in contemporary psychology. In various experiments with congenitally blind people, it is shown that many results that have been considered as supporting the existence of visual images ("mental rotation" [experience of making objects rotate in imagination], scanning objects on the map in imagination, etc.), are also valid for blind people. Congenitally blind people can rotate and scan objects in the imagination on the basis of tactual experience just as people with sight can do, with only a slight difference in speed. These results can be considered as showing that there are kinesthetic activities common to sense modalities in the essential part of imagination (cf. Kerr 1983; Zimler and Kenan 1983). The essence of imagination is neither "I see" nor "I think" but rather "I do." In this sense, imagination

could be compared to depicting a picture rather than to seeing a picture.

Since the movement toward the object and interaction with the object in the imaginary world can be seen as the process in which the object is "depicted" and related to its circumstances and other objects, we find ourselves now provided with the ground for the sought after relation between the isolatedness and the indeterminacy of images. Viewed in the light of the thesis that imagination is an action through which the images of objects are formed, we see that the isolation and separation of images from their circumstances is nothing other than an interruption of the formation of these images. Thus, isolated images are imperfectly made images, and in that sense, indefinite and indeterminate images. But why then do imperfectly made images become general? That is the question with which we must deal next.

3. Imperfect intentionality and open possibility

One of the main topics of the "imagery debate" in the contemporary philosophy of mind and cognitive psychology is whether the essence of the image can be seen as pictorial or descriptional (cf. Block 1982). In this debate the indeterminacy of images is sometimes considered as evidence supporting the descriptionalist view. For example, D. Dennett maintains the descriptional essence of the image on the basis of the following argument.

> If I write down a description of a person it would be absurd for anyone to say that my description cannot fail to mention whether or not the man is wearing a hat. My description can be as brief and undetailed as I like. Similarly it would be absurd to insist that one's imagining someone must go into the question of his wearing a hat. It is one thing to imagine a man wearing a hat, another to imagine him not wearing a hat, a third to imagine his head so obscured you can't tell, and a fourth to imagine him without going into the matter of headgear at all. (Dennett 1969, p.135.)

It seems to be difficult to represent the fourth case of Dennett with pictures or photographs. We could blur or obscure the place where a hat might be, but blurredness and obscureness themselves are made explicit with it, and in this sense we cannot help "mentioning" whether or not the man is wearing a hat.

But this argument is not as persuasive as it initially seems. It is not that photographs and pictures cannot help "mentioning" everything. The extent to which they cannot help "mentioning" depends on how we use various mediums of representation and what kind of convention we accept. There are, for example, color and black-and-white photographs, and there are concrete and abstract paintings. We have further rough sketches or stick figure drawings, in which a person can be depicted without going into the question of his wearing a hat or shoes, although it cannot be as brief and undetailed as we like. On the other hand, even if we make an extremely brief and undetailed description, it is fully thinkable that with such a description we cannot help being committed to the question of someone wearing a hat in some situations, for example in the situation where on some ground everyone is concerned with whether he is wearing a hat or not. In this sense the indeterminacy of images is not directly related to the question of the sorts of medium, namely the question whether the image is descriptional or pictorial, but rather it is related to the way we "use" such a medium and how we are "directed to" objects in using it, that is to say, the mode of intentionality.

The characteristics which we found in the previous section to correspond to the indeterminacy of images, is precisely what we find in the mode of intentionality that results from the interruption of the formation of images.

In order to clarify this sort of intentionality, I want to mention here the concept of "open possibility" ("offene Möglichkeit"), by which Husserl characterized empty intentionality in *Analysen zur passiven Synthesis*. In contrast to the "conjectural possibility" ("*anmutliche, vermutliche Möglichkeit*") that we experience when we are, for example, in a wax museum and are not sure if the object we see is a real human being or only a wax figure, "open possibility" is a possibility in which every moment of experience has the same weight in certainty and uncertainty, with neither one excluding the other. We experience this sort of possibility in horizontal intentionality, for example, with respect to the color of the back side of an unfamiliar thing which we are seeing for the first time. In this case, we are sure that the back side has some color, but

the "predepicted" ("*vorgezeichnet*") color is given for us in such a way that it is fully "indeterminate" ("*unbestimmt*") and has a space of "free variability" ("*freie Variabilität*"). What is experienced as certain is something like "some color in general" ("*irgendeine Farbe überhaupt*"), and Husserl refers to this way of givenness as "indeterminate generality" ("*unbestimmte Allgemeinheit*") or "general indeterminacy" ("*allgemeine Unbestimmtheit*") (Husserl 1966, p. 39ff).

This sort of indeterminacy corresponds to the concept of indeterminacy which A. Meinong uses as the criterion by which to distinguish between the complete (*vollständig*) and the incomplete (*unvollständig*) object, although in Meinong's case, the concept is not interpreted phenomenologically as in Husserl, but rather ontologically. According to Meinong, the negative judgment "it is not that A is B" does not necessarily imply the negative judgment "A is not B." That is, the judgment "it is not that blue is heavy" does not imply that "blue is not heavy." So, just as we can say that blue is neither heavy nor not heavy, we can say that a triangle in itself is neither oblique, nor rectangle, nor equilateral, nor equicrural, nor scalenon. That A is indeterminate with respect to B means, in short, that B is not concerned with the characteristics of A, and therefore the principle of excluded middle is not valid for A with respect to B. (Meinong 1972, p. 168ff).

In this way, the generality that is closely connected with the indeterminacy of images points to the empty mode of intentionality, in which objects are constituted only incompletely. Husserl calls this sort of determinacy the "fundamental form of generality."

> Unbestimmtheit ist eine Urform von Allgemeinheit, deren Wesen es ist, sich in der Sinnesdeckung nur durch "Besonderung" zu erfüllen; soweit diese selbst den Charakter der Unbestimmtheit hat, aber der besonderen Unbestimmtheit gegenüber der vorangegangenen allgemeinen, gewinnt sie eventuell in neuen Schritten weitere Besonderung usf. (Husserl 1966, p.8.)

This description of Husserl's is concerned mainly with the process of perception. But if what we have seen above regarding the determining process of images is correct, we should be able to say the same thing about the process of imagination. The process of determining images is

also that of fulfilling the emptiness of images, and at the same time, that of specifying the relative generality of images. In this sense, the isolation of an image is an interruption of the determining process of that image, through which (qua its interruption) its indeterminacy and generality are made explicit as indeterminacy and generality.

What must be noticed here is that in the process of isolation the direction of intentionality must be changed. When I am interrupted in forming images in pursuit of knowledge about how many windows my house has or whether someone wears a hat or not, I remain committed to the question of the number of windows of my house or whether someone is wearing a hat. This interruption yields only "conjectural possibility" and not "open possibility." Only when I change the direction of my intentionality and try to imagine my house indifferent to its number of windows or someone wearing a hat and other various characteristics, is my image realized with open possibility and, in this sense, indeterminate and "general."

In this way we discover the essential relationship between the isolatedness, indeterminacy and generality of images, and can phenomenologically confirm our first hypothesis. And at the same time, we are able to rehabilitate to a certain extent the Lockean thesis of abstraction. But the generality which we find in the indeterminacy of images is not a conceptual generality under which preexisting individuals are subsumed and classified. In other words, indeterminate generality cannot be understood as that of representation, that is, as standing for many individuals, as many empiricists (including Locke) think, but must be understood rather as a generality of schemes, which is, as Kant says, a "monogram, with which and following which alone images are made possible" (Kant 1956, B81).

4. The "Schematism" of images, or the image as "scheme"

On the grounds of our considerations above, we can now confirm that there are two sorts of image experiences: The one is an experience in which the object appears relatively determinate, fulfilled and particular, and the other is an experience in which the object appears relatively indeterminate, empty and general. The difference is relative, depending on

how we act (i.e., on the mode of intentionality) and what we experience as the object. But what is most important is that this difference points to a more fundamental difference between determinate and indeterminate images: a difference that is related to the functional and constitutional role of these images.

In the process of image formation, especially when it comes to the cognitive dimension of the image formation, the indeterminate image is not an object or a theme of the experience, but the "scheme," with the help of which we find the direction in which we acquire more knowledge about the object. As this process of image formation is exactly like that of perceptual activity, the indeterminate image can also be used in the perceptual process, although the way and the degree of its fulfillment are essentially different. In this sense, the determinate image can be said to lie on the same constitutional level with perceptual appearance, as opposed to the indeterminate image, which is so to speak "lived through" in the process of object constitution in imagination and perception.

The Lockean method of "abstraction" is precisely an attempt to objectify and thematize this preobjective image, and to make explicit the generality of the image. So also is the Husserlian method of "free variation," which thematizes the "free variability" of the indeterminate aspect of the image, which remained implicit during the process of object constitution, in order to draw out its "essence." This new direction of constitution is entirely different from that of the constitution of objects in normal perceptual and imaginary experience. Husserl emphasizes the "special freedom in the variation" in contrast to the "binding" and "restricted" character of perceptual and imaginary experience (Husserl 1972, p. 415f). In this sense, the process of isolating images and making them indeterminate plays the role of a switch, by which the direction of constitution changes radically. Notwithstanding the severe criticism which Husserl directed against the Lockean concept of abstraction, the process of the abstraction can be regarded as a starting point for the "eidetic reduction," if it is understood correctly, at least so far as the perceptual concept is concerned.

On the other hand, through this phenomenological interpretation of abstraction, it also becomes clear that the "generality" of ideas itself cannot be explained by the concept of abstraction but must rather be presupposed. As Husserl shows, the "generality" is originally "pre-constituted passively" through various experiences and not through abstraction or "*Wesensschau*," in which "generality" is made explicit and objectified actively (Husserl 1072, p. 414).

Now we want to deal with the last question concerning the indeterminacy of images; namely, why must indeterminate images, understood as schemes, still be seen as images, if they have a preobjective status in the constitutional process and if in them no object appears objectively? According to Kant, the scheme "can exist nowhere other than in the thinking" (Kant 1956, B180). Is there nevertheless a special reason to regard the schematic character of indeterminate images as belonging particularly to the sphere of the imaginary?

Let's return to our first example, the vague image of the triangle, and apply a bit of free variation. Insofar as the imaginary scheme functions in perception, we can use a variety of pictures of a triangle as an example. However, although all triangular forms can be said to be similar, we notice that the direction of similarity is asymmetrical. For example, it is easy to say of a variety of triangular forms, that they are similar to the form of an equilateral triangle, but it is fairly difficult to regard the form of an equilateral triangle as being similar to that of a triangle with one extremely long side. The more different from the equilateral triangle the forms are, the more they seem to lose their character of "triangularity." There is here an asymmetry, in the direction of the similarity of forms, and it is the typical form of a triangle—that is, the form which is more "triangle-like" than the others—that determines the direction of similarity.

If the scheme which functions in the determination of the "triangularity" of various forms remains purely conceptual, we cannot understand this "asymmetry of similarity," since all triangular forms, whatever they may be, must be equally similar to each other, as long as they satisfy the necessary and sufficient conditions for being a triangle. In contemporary psychology, typical forms of this type are called "proto-types," and are found not only in the domain of geometrical forms but also in the domain of sensory qualities such as color or sound, of artifacts such as furniture or vehicles and of natural kinds such as animals and plants, etc. A prototype functions not as an abstract rule that determines the necessary and sufficient conditions for the things in question, which are to be subsumed under a concept, but rather as a kind of typical concrete example or paradigm, with respect to which things are seen as more or less simi-

lar and then grouped in a category. This is how children know what a triangle is like, why they can distinguish between prototypical and unprototypical forms and can draw a prototypical picture, although they cannot state the exact definition of a triangle. Thus, we can say that children possess the imaginary scheme of the triangle but not its conceptual scheme (cf. Lakoff 1987, Part 1).

This distinction is further supported by the insights of recent psychology. E. Rosch's psychology proposes that the concept of prototype shows that there are different levels of categorization: She has called the psychologically most important level the "basic level." For example, "chair" and "desk" play a central role in perception and action as well as in the organization of knowledge. In comparison with them "furniture" yields a higher level and "rocker" or "workdesk" a lower level. Children learn the names for things belonging to the basic level earlier, and this level is also the highest level at which a person uses similar motor actions for interacting with category members and also the highest level at which a single mental image, that is to say, a prototypical image can reflect the entire category (Lakoff 1987, p. 46ff). In this sense, categories up to the basic level can be said to function not only as conceptual schemes but also as imaginary schemes, especially since these categories have a close relation to bodily movements. The imaginary scheme is at the same time the scheme of embodiment for categories.

Does this mean then that the imaginary scheme is entirely out of question at levels higher than the basic level? But don't we sometimes say that we have images of the animal or the plant and even of life in general? Don't we speak not only about images of things but also about images of events such as a discussion or a battle, and even about images of abstract ideas such as justice or gentleness? Haven't many artists tried to give concrete form to such images in one way or another? Or are these expressions about images no more than metaphors? At the end of this paper I would like to touch very briefly upon these problems.

5. Thinking visually?

One of the famous psychologists of art, R. Arnheim, emphasizes the role of abstract patterns in the visual arts and shows that the abstract and

intellectual theme can also be expressed visually with the help of the compositional structure in paintings, for example, the humility of Christ in "Christ at Emmaus" of Rembrandt, or the sharp contrast between the mundane value and religious value in "A Woman Weighing Gold" of Vermeer, etc.

> The foregoing examples have shown what enables a work of art to be more than an illustration of a particular event or thing or a sample of a kind of event or thing. An abstract pattern of form, or more precisely, of forces is seen embedded in the image. Because of its abstractness, such a pattern is a generality. Through its particular appearance it represents the nature of a kind of thing… Just as a chemist "isolates" a substance from contaminations that distort his view of its nature and effects, so the work of art purifies significant appearance. It presents abstract themes in their generality, but not reduced to diagrams. (Arnheim 1969, p. 270, p. 273.)

I think the way of understanding such abstract images could be seen to be analogous to the way of understanding concrete images or images at the basic level, if we take into consideration our above analysis concerning the indeterminacy of images. Abstract images, which artists try to realize in various ways, are "empty," yet they offer the artists a direction for their endeavor, although it is very vague, as the image of "a word on the tip of the tongue" (James 1950, p. 249ff; Holenstein 1980, p. 118ff). It was W. James who emphasized this vague and schematic function of images, which is realized as "consciousness of emptiness" and "sense of familiarity" and which plays an important role in the productive work of scientists and artists.

> What is that shadowy scheme of the "form" of an opera, play, or book, which remains in our mind and on which we pass judgment when the actual thing is done? What is our notion of a scientific or philosophical system? Great thinkers have vast premonitory glimpses of schemes of relation between terms, which hardly even as verbal images enter the mind, so rapid is the whole process. We all of us have this permanent consciousness of whither our thought is going. It is a feeling like any other, a feeling of what thoughts are next to arise, before they have

arisen. (James 1950, p.255f.)

In one sense artists know the subject of their production very well, for example, what life is like, but in another sense, they don't know it at all. They must find out by bringing the image into reality. The process of producing a work of art is as much a process of finding an image as of producing it, in the sense that the indeterminate image is made explicit and "determinate" through this process, though not in the same sense of determinacy of normal perception. And the process of understanding a work of art moves in the opposite direction. We can say that we understand the subject of a work, for example, what life is like, only when we make the "determinate" image, in this case, the "material image" which we perceive, once more indeterminate, that is schematic and embodied in ourselves. What life is like comes to be understood "through our own bodies" (cf. Merleau-Ponty 1964, p. 30). The circular movement between the determinacy and the indeterminacy of images plays an important role in various fields of our life, from everyday perception and imagination to artistic production and understanding.