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Image As Cognitive Form

A discussion of spatial meaning departing from a critical review of Wittgenstein's image and picture concepts

The intention of this paper is to provide a description from which it should be possible to make predictions of which general types of meaning an image can convey, and what it cannot. A specific reason of not least aesthetic validity for this pursuit is the fact that we most often think that we are accounting for an image, an artwork etc., when we do nothing but commenting upon them. To reach my goal I have to go all the long way through the well-known, but here very briefly.

When somebody starts talking, the listener receives – if we disregard the phonetic aspect and the symbolic instruments which the words themselves are – a continuously increasing number of references which he/she follows up from his/her own mind as continuously as the words flow. By that the talker's conceptions and the listener's conceptions and underlying mental representations are both engaged in the formation of some complex and hopefully relatively similar meaning. Understanding means a sort of meaningful adaptation of representations stemming from past experience and learning to the specific meaning which is intended to be established by the structure of the language applied to corresponding conceptions. Each word received is a signal which awakes a representation or a concept or a function which relates

the one to the other, or contributes to the erection of a new building of meaning.

This, of course, is just a complicated way of saying that language is referential or symbolic, and not a means for direct references from reality to mind, and not direct from mind to reality. That you do not speak reality, but speak of reality.

But that which was just stated about language, is also relevant in relation to what Wittgenstein termed an image, of which he says in *Philosophical Investigations* that

The sense in which an image is an image is determined by the way in which it is compared with reality. (BB 53)

which, among other things would mean that there is no indirect way of showing real conditions in an image, the one and only way is directly to show them.

In earlier years I was convinced that Wittgenstein's description of an image in *Tractatus* – which as far as I can see is maintained in his latter writings – was absolutely and generally relevant for any image showing virtual or imagined reality, and I used to quote as relevant for pictures of art his formulas

2 1511 So is the image related to the Real; it reaches it.

2 1512 It bears on Reality as a yardstick.

There is an important difference between referring by a word to a specific concept, which stands for a representation in the mind, and referring by an element of an image before your eyes to what this element stands for in my and hopefully also in your reality (which, of course also is a representation in your mind). One point of inequality lies in that unlike the concept summoned by the word, the element of an image has not to be formalised, neither to be restricted in relation to any other thing than the mere contextual experience. This is a well-established difference, and it has further bearing upon the structural inequality, which is fundamental.

On another level there apparently are also obvious similarities between these two situations. Not only is the word a symbol, but so is also an image of an object, it is a symbol which refers to qualities and

circumstances which are connected to the experiences we have had of the depicted object.

But when telling what he means to be an image, Wittgenstein however, by giving primary importance to this point of similarity between sentence and visual image, clearly demonstrated that he did not primarily think of an image as a specific structure of meaning, but rather as a parallel to immediate reality. As a matter of fact, his main concern was that portion of an image of the world, which is provided directly from immediate surrounding physical reality to our mind by our eyes. And the man-made image he wrote about, which he latter termed a picture, was conceived of as just a parallel or imitation of immediate reality. What he saw in the image was a perspicuous demonstration of significative forms, carriers of meaning. Just as immediate reality to the human mind is a structure of symbolical forms each of which carries the meaning which our earlier experiences have given them.

But not only the picture made by man, but also the image provided by the eyes from the immediate physical reality is, in a quite fundamental way, structurally different from any linguistic message. This can be and has been argued from a semiotical point of view, especially by pointing to the further, behavioural as I would like to say, consequences of the immediate analogy between image and physical reality. But I will try another path, departing from perception and cognitive theory.

Wittgenstein was in any case very much aware of the difference between the linear, digital sequence constituting linguistic structure, and the simultaneous being of all elements in a picture. But precisely this forces us, quite contrarily to his stated intention, to understand his term 'image' metaphorically.

It is first in his later writing that Wittgenstein made the very useful distinction between *image* and *picture* which I just repeated, something which is denied us in any dictionary of English and any encyclopaedia I have come across. The distinction image/picture is useful not only generically for distinguishing man-made images from other images. It is also needed structurally to distinguish images which are made according to cultural norms, from images which might relate

more directly to given biological internal and/or to physical external conditions. But also the latter are understood on cultural conditions.

In a final view, Wittgenstein uses the conception 'image' originally coined by Aristoteles, according to which any representation in the mind is an image, and not only visual or verbal ones. Because, as he says, you can well make yourself an image of a tooth-ache long after you really experienced one, but you cannot paint or draw or even photograph a picture of one – you can't produce a picture which really expresses tooth-ache, but only one which exemplifies someone having tooth-ache. (And this might even be impossible to distinguish from a picture of someone having received a blow on his teeth or scalded his mouth). I think he underestimated the expressive possibilities of art, but that is another story.

Thus he had not at all come to stress any generic distinction between verbal and visual evidence, but rather between image reference which is a reference to a totality, and all other references. It is therefore quite consequential that in discussing the same subject in *Philosophical Investigations*, the identification of image with the references of the language made in *Tractatus* is replaced by a more general idea about references to meanings. Still, the structural vicinity to language even so remains typical of his conception. With an image he meant any form for making sensorial experiences conscient, involving visuality or not.

It is rather in the perspicuity and immediacy in relation to the sensorial world we have to look for the constituent qualities of Wittgenstein's image concept – including picture. There will be rather comprehensive differences between what I will in the following propose to be constitutive of an image, and what can be read in his texts. I, however, not only agree as to the near relation between visual images and other sensorially founded representations in the mind that he names images – but believe also with my arguments to add to his reasons in that case. When in the discussion of art historians and art theorists an object is referred to by turns as an image and as a picture, it should consistently be named a picture.

But besides and behind the picture there is in our mind also a primordial virtual visual image – the visual mental representation. And this in turn is most basically and fundamentally produced in and by vi-

sual perception of the physical world, in which the picture is part. Any picture is experienced on the conditions of perception, any experienced picture, is primarily a visual perception and a mental image. Even if this visual image in our present existence may be just one case or group of cases of images, it is of course still liable to have generic qualities which remain important down to the last analysis.

But while contributing to better precision of terms in one respect, this distinction image/picture in its context also virtually contributes to blur the opposition it introduces, and especially the difference between pictures and visual images in general. Although a picture must always be visual, the general concept of visual image is left with no other specific distinction in relation to picture than the one of being a man-made physical object. And when basing the distinction upon just the materiality of a picture, and upon the immateriality of an immediate image we are left with a really troublesome problem, because, as I just mentioned, experiencing a picture means, at the same time as there are self-evident differences between immediate visual images and other phenomena called images, mentally to experience a visual image, which is not a physical phenomenon in the meaning of a picture.

This arguing might seem as a joke, as long as we do not consider the mere process of perceiving not to be just an act of registration, but as much an act of interpretation or even of problem-solving. In this act we might distinguish factors which seem definitively related to seeing, and related to visual physical forms. But to what extent are they exclusively active for visual reception, respectively to what extent may they be just aspects of more general or versatile factors active also in say metaphors and similes? And to what extent may other factors of meaning, not immediately related to the visual aspect, still be constitutive also for images?

This approach, even if as yet void of arguments, starts from an aspect which is totally different from that of metaphoric relation. In the last instance Wittgenstein's conception of image in *Tractatus* seems to me metaphoric, even if in many instances extremely inspiring, rather than an exact designation of anything concrete. As a metaphor it is up to connotative effects which are hard to control, directing attention e.g. to perspicuity and to sensoriality at turns.

As a matter of fact Wittgenstein's suggestive formula that "the image bears on to reality" provides the idea of matter organised not primarily in space, but linearly like a *profile* which can be fitted to correspondingly organised forms in the image. If the image profile fits perfectly to the real matter, then the image represents the intended reality. If not, it represent another reality or none at all.

And firstly then, understanding verbally his formula about the way of controlling the veracity of an image means to ask for nothing but a profile – and a profile is, as a matter of fact, a digital structure, a linear sequence in which everything is placed within a certain order which cannot be randomly altered which makes it appropriate also to talk of a digital quality in it.

Secondly, any image for which no reality profile fits may still exist as an image. Even if not all images are pictures is a painted picture, for instance a non-representative work of art, the forms of which are constructed and not repeating pre-existent patterns, still an image. That means that a non-representing picture falls outside Wittgenstein's definition of an image. Something which he, of course, might have handled by making a specific case for non-representing pictures.

It may seem natural to take the words metaphorically, so that "bearing upon" means not just *to fit in sequence* but to relate more freely. But such a relation would never do any good in direct inspection for checking main concordances in a context with subtle differences, and a context with that possibility may be the most normal and often the most interesting.

The spell of the formula is lost when it loses its accuracy, which it clearly does by letting the spatial aspect aside. As soon as you are really looking for what an image means as a specific structure, the 'profile simile' is no more revealing. I think the fact that his metaphor is inefficient in relation to the spatially extended image adds to our understanding that it never was Wittgenstein's meaning really to be precise about images, but to concentrate upon reality and understanding of reality.

Even in relation to the discussion of the visual image it is much more important that in *Tractatus* he considers a sentence to be an image of that what it talks about, and that he means that in reversion an image can be identical with the constellation of references made by language to shared experiences of the real world. This may be most directly informative about verbal language, which never contains any information in itself, but exclusively refers to experiences and conceptions. All words are empty without being able to refer to experienced meaning. But also the understanding of images requires understanding of their parts – objects and phenomena. Nobody who is not already well integrated in culture – as a child or as an adult – can benefit by references the meaning of which directly or even indirectly depends upon culture.

But still there is a major difference between understanding a sentence and understanding an image. Man has in order to understand a verbal communication to be part of three different phenomena: of language as a system, of experiences such as you make them in your life or conceptions such as you receive them and understand them in your social context, and of connection between those experiences and words, which means conventionalising of the experiences, relating them to concepts and language.

With an image it is different. It is certainly true that you will not understand any scene appearing before your eyes without disposing memories of elements like those which figure there. But it is not formally impossible by immediate experience to be aware of the nature or some qualities of different objects and constellations simply by already earlier having been where they appear. The basic requirement for familiarity is physical experience, and there is no absolute need for words.

Especially, just for obtaining a comprehensive structure of possible meaning – an image –, there is no *specific* need for conventionalising the relation between those elements and your experience of them, like there has been for a language system. And when there is no culturally conditioned structure mediating between your experience of the object, thus of its meaning, and the image in which you see it, there is nothing to prevent you from without any distinctions or precautions to relate non-cultural meaning (based upon original individual experi-

ence) to cultural meaning (socially shared) in the same image, and thus to integrate the earlier unknown in the context of the known. Much has been said from the aspect of semantics, and still more may remain to be said from the aspects of perception and cognition, about the importance of contextuality for understanding the unknown.

It is, in my view, the immediacy, in the meaning of independence in relation to consistent non-biological conditions, that gives an image the *potentiality* of being an incomparatively much more valid information about sensual world than language *as such* can ever be. (But I also think of that language, as developed in literature, disposes all of man's experience, even if in a mediate way, and that what is said about language structure as such has no general bearing upon literary communication. Not least shared experiences of images may be referred to by words without those words really to describe the image).

Wittgenstein's assertion that elementary propositions is all we have about reality, and that all further true propositions are tautologies related to them, reposes upon the assertion that it is upon the basic contact with reality through the senses, and the construction of what we are informed about by our senses, that we have to substantiate reality.

But if conceptual thinking, which is the condition of propositions, should be presented as our primary means for understanding even immediate physical reality, then not only sensual reports, but also our way to conceive of the elements and relations within those reports, would have to be conditioned by conventions. And if so, what Wittgenstein says about the nonsensicality of all propositions which are neither elementary propositions nor tautologies related to such ones, should have to be valid *also* for elementary propositions. Because there can then not exist such a hermetic closure around the perceived reality and the perception which would rid the latter from dependency of non-tautologic assertions concerning the conceived.

Already before *Tractatus* was written, Husserl in his *Ideas* had criticised the opinion that we, in immediate contact, understand reality by identifying sign qualities in the objects:

It is [...] a fundamental error to suppose that perception (and every other intuition of things each after its own manner) fails to come into contact with the thing itself. We are told that the thing in itself and in its itselfness is not given to us; that what every existent in principle possesses is the possibility of seeing things as they plainly are, and, more specifically, of perceiving them in an adequate perception which gives us the bodily self *without any mediation through "appearances"*.

[...] The thought that the transcendence of the thing is that of an *image* or sign has proved misleading here. [...] The spatial thing which we see is, despite all of its transcendence, perceived, we are consciously aware of it as given in its *embodied form*. We are not given an image or a sign in its place. We must not substitute the consciousness of a sign or an image for a perception. (*Ideas*, 43)

If an object cannot be identified with just a sign or an image (in exact meaning), it means among other things that it can not be recognized by the same sign or image independently of a given situation. We always meet the things in different contexts and functions, and all the time they fall out differently as "meaning". This, precisely, is what my theory of image is about.

This discussion has bearing on the problems of idealism and that of scientific reductionism. In our context there is interest in focusing upon everyday perception. In science reductionism makes even the idea of a "true image" of reality, in a non-metaphorical meaning, impossible.

The distinction between image and picture directed the attention to the difference between perception of immediate reality and a communicative structure organized by man, and this is clearly helpful in our context. But picture being a case of image, anything on the level of principles said about images must also concern pictures. On the other hand, the fact that pictures may show qualities, which are not found in immediate reality, makes it especially important to find out how those qualities function within the fundamental conditions of an image. In other words, a theory of images making a specific case of pictures is a theory relevant not only to aesthetics, but also to general cognition.

In recent years the concepts of image/picture have been very much developed, not least in direct comparison with spoken and written language. The differences between a realistic picture, say a photograph, and a sentence, are to that degree evident that it may not normally have seemed necessary for theorists of cognition and epistemology in earlier days to make the point. But there is a danger in the self-evident: if you don't question, you don't try to define.

As a matter of fact, more advanced attempts at defining pictures – except for very general ones – started to appear when already the idea was manifest that any communication is by nature linguistic, and that by that reason there is interest in deconstructing pictures in order to find out their communicative mechanism. Pictorial semiotics is responsible for most recent contributions concerning pictures in general. And pictorial semiotics has been very aware of the differences between verbal language and picture. Still, there seems to exist a trap in the mere fact that this enterprise departs from linguistics. Because linguistics deals with cultural and communicative structures, which cannot be directly reduced to pre-cultural ones – you can e g not demonstrate complete language functions in a 6 months old child, while any living creature with eyes can be aware of an image as a structure. Starting the analysis of structural features at the level of language must in the case of images mean starting at the level of pictures and not that of images. (Because pictures codify cultural traditions of picture-making like language codifies cultural traditions of speech and writing).

Virtually, an image and understanding an image are not per se communicative acts. What they always are, however, even when not communicative, is orientative. It is through our visual field, our scanning of it and our attention to what appears in it, that we continuously orient ourselves in this physical world, no matter if we do it alone or in company, no matter if we are aided by cultural conceptions or not. In perceiving visually, we interpret that what we see with the aid of our memories, no matter whether that what we actualise for our understanding springs from experiences of our own or from social learning. This is basic, and that's why a basic theory of image cannot be a semi-otic theory.

And that means that while there is nothing really similar to language left aside in the study of linguistics including semiotics, many essentials in images besides the aspect of pictures might still be left aside.

Many statements which seem to stay upright from the semiotic discussion will no doubt also show to be relevant in relation to image in general. But it is reasonable to make the case of the prepictorial image as much as possible unbound of semiotic results, and then to compare the outcome of this discussion with those of semiotics.

The most common image of all is thus the world before my eyes as I see it. That image is always changing but also always present for any living and awake creature equipped with eyes. It certainly reads very differently for different creatures, but common to all of us is no doubt that we do not doubt it. We are in the normal case convinced that what we see before our eyes is physically present within the reach of our sight.

To be able to identify what we see with earlier known objects and phenomena in the physical surrounding has always in the existence of all species been a prerequisite for survival, from moment to moment. The image of the world has had, and still has, to be taken for the world. One succeeds to handle reality only by accepting that what you see to be at ten meters' distance and approaching you also has to be dealt with as being ten meters away and approaching.

Realizing that this is not literally true does not help us in our immediate existence. To locate the image of the world inside our heads where it truly dwells may rather confuse us than help us in understanding what we virtually see and deal with – while it is really helpful to project ourselves into the physical world before us by looking at it. No wonder that we do not normally problematize our visual and immediate image of the world. But in not doing so, our experience departs from the virtual conditions, and it becomes the unsuitable task of the theories of discursive understanding to explain also how our visual understanding comes about.

The image which I am discussing is the visual one – it demands eyes. There is much to be gained from a comparison between this im-

age and other conceptions of reality which have been called images. But this is a later concern. The *extension of the visual field* – not of a space, but of a field – is a necessary condition for an image. This allows for the disposition and judging of different visual elements in different internal relations. Already a surface provides that way a space of meaning, because of the possibility it gives to discern the interrelation between the elements upon it, which adds dimensions of potential meaning to the two ‘physical’ dimensions of the surface. In this way any image differs fundamentally from any discursive thought or sentence, which both runs linearly, in segments following after each others. The elements of an image are to be dealt with *simultaneously*, and they are understood in their simultaneous interrelation.

Contrarily to the case with the sentence, which depends upon already established meanings of the words, the *meaning* of one element in the image *can be established by the relation* to other elements within it – very often the simultaneous relation to several other and not necessarily internally kindred elements. And the qualities of those relations may be very different and very decisive.

Nearness and distance, relatedness and unrelatedness to another object, may for instance decide modification or designation of meaning in an object, and all objects together might form a specific meaning which is not inherent in any isolated element. This specific meaning might occur just once in a lifetime, or reappear and be understood in the light of further experience etc.

The latter is of course also true of a discursive thought or a sentence. But one difference between such one and an image consists in the fact that the complex or derived meaning of the sentence has to be successively built up in a hierarchical order by the meanings of the words used in the sentence, while in the picture it is exactly the simultaneity of all possible carriers of meanings, the immediate *constellation*, from which this meaning is derived.

This is easy to understand when exemplified with a dramatic situation in wild nature: somebody comes into an area, with an abundantly bushy vegetation and animals of several species, one of them a major predator, some typical prey animals. It is vital immediately to understand the situation: is the predator satisfied or hungry? Are the prey

animals susceptible to be hunted – or maybe myself? Can I hunt without interfering with that predator? To understand this it is necessary simultaneously to judge the individuals, their locations, their directions of movement, because it is as much in interrelations as in individual conditions you can see what is going on. You have to do it at once, in a glimpse of your eyes. And if you make a mistake, it is very possible that you will be the dish in the dinner-party.

This situation of a wild life, which can be easily doubled by almost any even the most faintly complicated situation in the traffic, shows the advantage of a constellation, namely to allow for a simultaneous judgment of all parts of the field. *Digital structures* – corresponding to discourses remain inexorably *linear*, permitting us to confront no more than two elements in turn, then two more elements or the one remaining element another, etc. - and this *binary strategy* makes it impossible to survey in the same instance the simultaneous relation of more than two elements, may it be animals or wind, woes and the boom of a boat.

What is true for the structures in which conditions for judgments are presented – as an image or a digital structure – must be true for the human mind which is to perform those judgments. So if we can discern a more-than-two-at-a-time structure in an image, this must depend on the fact that there is a more-than-two-at-a-time capacity for processing in the mind. Without counting with such a capacity there is no way to explain the specificity of images. We would simply not apprehend it.

On the other hand, just stating this to be a self-evident consequence of the mere image concept may make us the real point. Because further to explain image effects means to explore how our mind handles image structures. When, in another text under conclusion, I have studied this in some depth, I have argued that what goes for images, also goes for other more-than-two-factor structures of sensual information and thinking. Even blind men orient themselves in physical world as if they disposed a three-dimensional image of it, and this corresponding orientation must be given to them by the other senses. So the mental capacity for understanding images is not just a capacity for images.

Or, turning back to the 'objective' aspect: that what we call images is just a case of more-than-two-at-a-time-structure.

An image thus makes it possible for you simultaneously to survey and judge *three or more elements*. Meaning is retained and qualities perceived as an effect of a perceptual scrutiny of more than two factors at time.

As the consequence of this structure, any element of an image might be affected as to its meaning inside the image by one or several other elements, and by their positions in the field. That means that any object or phenomenon in this field has possibilities for several different meanings. (On a level of principle and scheme we may form a system of those possibilities for each object, and call them its paradigm).

In the image one object calls forth different aspects of other objects, actualising different positions on their paradigms. The interrelation of objects can, on the level of principle and scheme, be described as a meeting of dimensions (each paradigm forming a dimension). The points of intersection are of outmost importance. Any the slightest change of position may mean different meaning – or no conceivable meaning at all.

In this respect an image is *pluridimensional*, and this as we see is quite different from being three-dimensional, which means having a body and space. To the simple spatiality in physical meaning, there comes thus the spatiality of meanings. An image is thus spatial by nature in two senses. But I see no reason that, in the last analysis, physical spatiality will stand out basically different from, or in any way especially representative for, spatiality of meaning. And if not, we must have some doubt whether visual images profitably can be studied as representatives for all cases of spatially interrelated meaning. Before knowing that, we would have to find ways clearly to distinguish and describe spatial structures of meaning other than visual images.

Binary mental processing is required for producing and understanding discursive thought and language and is currently seen as the typical expression of discursive intelligence. To which structures and capacities in the mind does then the understanding of an image correspond?

You can hardly avoid the idea that it may have to do with an expression of the brain lateralisation, the capacities of the right hemisphere. During the last 30 years there has been collected an increasingly concordant and diversified mass of clinical information and indications about the specialities of the two cerebral hemispheres of man.

Individual inequalities set aside and very roughly considered, people process discursive thoughts and master speech and writing as well as time sequences primarily with the aid of the left hemisphere, while it is with the aid of the right hemisphere that we understand or produce pictures, maps and such things, and all sorts of physical spaces and locations. But we also understand metaphors better when the right hemisphere is involved, as well as emotional situations and influences. Common denominator between spatial phenomena and metaphors may be that they engage the simultaneous relation of more than two components. Without two components at least, there is no meaning coming about at all, and reversely: with two components you may always produce a recital. With the third factor enters as well the relativity of meaning as the means for establishing the relations inside the structure, because each factor in the recital can be acted upon and modified, added to or neutralised.

It is in this perspective that metaphors show to require more than two factors to be well understood. When giving attention to the metaphor we must besides the straight binary linguistic structure also be aware of the two positions of meaning touched upon by the same word. And at least partly the impact of emotions upon judging of the world can be described as the most immediate or 'normal' understanding and judging of facts and events being modified, added to or affected by individual emotional positions – and thus to be expected to work out differently with different individuals or in different human situations.

With three or more factors we are however not at all bound to just a linear recital, with them we meet almost any complex physical sensation and judge it in a space of potential meaning (or if you wish as a space of meaning), in which each factor acts upon the meaning of each other factor. So we can say that the specialities of the right brain which are most consistently reported by brain physiologists and neuropsychologists correspond to the faculty of simultaneous attention to

more than two factors at time. In other words: there is a characteristic capacity in the brain showing structural similarity to what we have presented as a basic requisite for an image. This in turn makes the attention to structural peculiarities in images still more worth recommendation: if images thus have something to reveal about our everyday intellectual processing – also by adding a useful perspective for discursive activities – then we might have much to learn from a better understanding of pluridimensional conditions for intellectual life in general as well as for picture understanding.

There is thus much reason to describe an image as a spatial structure in which simultaneously several elements can be judged in internal correlations. The brain is equipped for handling the crucial qualities of an image in a genuine way, structurally independent of the discursive strategies which still entirely dominate our most common conceptions of intellectual activity. It is equipped for developing strategies related to spatiality, constellation and interrelation. And this also gives a very solid basis, for discussing images as structures of meaning independently of discursive structures.

Spatiality, on the other hand, has in our analysis shown primarily to be characterised by the interrelation of more than two dimensions of meaning, something which can be obtained without the support of visuality. This outcome, in our restricted context, gives a strong reason for consistently to use a more precise term for what has been primarily discussed here: visual image, of which picture is one case, and which itself is a case of mental spatial structure in a wider sense – or say an application of a concept of this nature, for which this or another appropriate term may be proposed.

Literature:

L Wittgenstein, *Tractatus logico-philosophicus*, 1922

L Wittgenstein, *Philosophical Investigations*, 1953

E Husserl, *Ideas* 1913

J L Bradshaw & N C Nettleton, *Human Cerebral Asymmetry*, Century
Psychol. Series, Englewood Cliffs, NJ 1983

E Perceman ed., *Cognitive Processing in the Right Hemisphere*,
Academic Press, New York 1983

S Sandström, *Se och uppleva*, Kalejdoskop, Kristianstad 1983

S Sandström, *Verkligheten är ett innanhav*, Doxa Lund 1987.

