Lecture 1: The Quadrature of the Hermeneutic Circle

Historical and Systematic Introduction to Pictorial Semiotics

The first lecture will present pictorial semiotics within the framework of general semiotic theory. It will construe semiotics as a particular point of view taken on everything which is human or, more generally, endowed with life, rather than simply the continuation of the mixed or separate doctrines due to Saussure and Peirce. The historical part will describe briefly the development of pictorial semiotics and the peculiarities of its different schools and traditions, following upon the somewhat premature founding gesture attributed to Barthes.

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At least one thing is implied by the very proposal of a course in pictorial semiotics: that a subject matter for such a discipline can be found. It supposes that there is such a thing as a pictorial sign, or, more broadly (in a sense which will be specified in the second lecture),
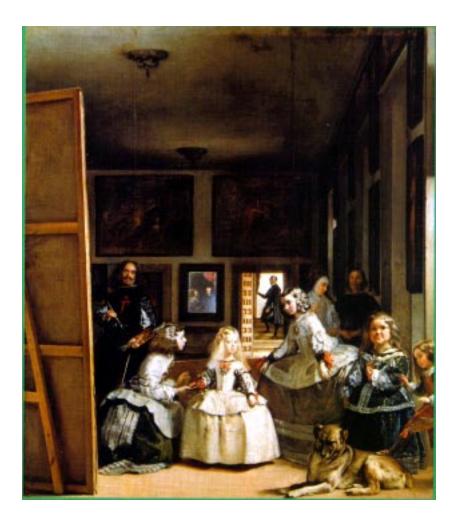
*Fig. 1. Velázquez'
"Las Meninas"*

that there are pictorial meanings. In other words, that homely object known as a picture either consists in a sign or some other kind of meaning, or is made up of signs and/or other meanings.

The claim contained in the formulation of the subject matter of our discipline is not really about what is "out there". Minimally, the claim is merely that it is possible to construe pictures as signs (and/or meanings), and that, in so doing, we are in some way able to illuminate some properties of pictures not evident from other construals. In fact, however, I am making a somewhat stronger claim: pictures are really *used* by people (at least some of the time) in ways which imply that they are signs. This does not mean that people would ordinarily *say* pictures are signs. Indeed, they would not. Rather, the sign character of pictures is contained in the uses to which pictures are put.

It is not enough to show that pictures may be construed as signs. We must also demonstrate that this approach has not been taken, or not systematically so, within disciplines antedating pictorial semiotics. Indeed, I will argue that, contrary to many others parts of semiotics, pictorial semiotics is a quite new endeavour. While the way semioticians have discussed literature or culture may appear to be just one in a long series of possible approaches to their object, one of several version of "literary theory", "anthropology", and so on, there is no precedent for the manner in which pictorial semiotics looks at pictures, certainly not in art history, and only vaguely so in philosophy. Even this affirmation needs to be qualified: in some respects, what has

happened in perceptual psychology following upon the work of James Gibson may be more important for pictorial semiotics than some things done under this very heading.

It should be pointed out from the start that, in my view, pictorial semiotics is something rather different from art history, even construed as some more general "Bildwissenshaft". It is not uninterested in pictures classified as art, but it does in no way attribute any privilege to them: art is simply one of several categories of pictures defined by the social use to which they a commonly put. Instead, we are involved with pictures as the result of a particular *cognitive operation,* which is, more specifically, a *semiotic operation,* a sub-class which also includes such things as verbal language, gestures, and much more. I would like to add, as a caveat, that as pictorial semiotics is dedicated to the understanding not only of the general category of "picture", but to all possible subdivisions of this category, it still retains an interest for pictorial art.

In order to understand the latter point, it will be necessary to go rather deep into the nature of semiotics as a discipline, well beyond the easy alternative of Saussure versus Peirce. This will be accomplished by using both Peirce and Saussure as our stepping-stones, in order to reach a modern conception of semiotics, inspired in perceptual psychology and cognitive science. Finally, we will have a brief look, to be pursued later on in the course, at the most important traditions within pictorial semiotics, which have developed from several different critical stances taken on Barthes' early proposal, into a series of conceptions more or less corresponding to the ideal which we have set for semiotics generally.

I.1. Introducing pictorial semiosis: the way pictures mean

Pictorial semiotics is the science of all pictures and all picture types. As a part of general semiotics, its primary aim is to investigate *how* pictures differ from other signs and other meanings, and in what ways they are similar to them. At the same time, however, it is involved with explaining the ways in which signs which are pictures may differ from each other.[1]

A picture is primary a perceptual task. But it is not just that. Or, rather, it is a *peculiar* perceptual task. In spite of all that has been said above, I will start out from a picture considered to be a work of art. It has the advantage of being well-known. And this particular case also has other advantages, from the semiotic point of view, as we will see shortly. So we will begin by looking at Velázquez' "Las Meninas" (Fig. 1.). But we will do so as semioticians.

Adopting a semiotical point of view, we would ask ourselves for instance how similar to other pictures it is, and, more in particular to pictures within the same picture category, such as all paintings, all oil paintings, all pictures considered to be works of art, all pictures in museums, all pictures referring to the act of creating art, etc. We would be less interested than art historians in knowing how similar it is to other paintings by Velázquez and to other

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1   In this section, my aim is simply to offer some approximate ideas about what kinds of questions are addressed by pictorial semiotics. There are very few references here, and hardly any mentioning of names. We will return to theses issues at another level of complexity in later lectures.

paintings from the 17th century, but even these questions may acquire a semiotical sense, as we shall see later. The answers to these questions may throw light on what a picture is, as opposed to being a verbal sign, a gesture, and so on, and it may also tell us something about the peculiarities of painting, art, and other picture categories. At the same time, it may also enlighten us as to the particular way in which this particular picture makes use of the general properties which pertain to it because of the simple fact of being a member of the category of pictures, the category of paintings, the category of a art, and so on.

The painter is inside the painting, and he is looking at as intently. He seems to be in the process of painting our very likeness. But in a mirror in the background, directed at the position which we are likely to occupy as spectators, a man and a woman not very similar to us latter-day observers are reproduced. The mirror image and the viewing position inscribed in the painting thus seem to compete for the part of observers.

The paradoxes of Diego Velázquez' painting "Las Meninas" are well-known, but largely unresolved (cf. Foucault 1966; Boudon 1979, Searle 1980). These paradoxes seem to have two sources: first of all, the fact that six of the persons depicted, including the painter himself, stare hard at the observer; and, in the second place, the specific position of the mirror image. The surface of paint which corresponds to the depicted scene at the same time appears to form a transparent wall facing on to another space opposite to it in which the spectators of the scene are placed. Indeed,
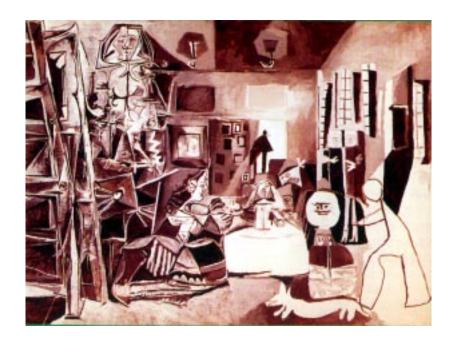
Fig. 2. Picasso's work "Velázquez' Las Meninas"

we can imagine another possible picture, in which the spaces have been inverted, and the people we now see are looking at whatever is at the other side of the pictorial surface, which would normally include us. The presence of the large surface, which we see from behind, may seems to indicate that there is such a painting. And the very optical laws according to which mirrors function suggest that the mirror image in the background renders a portion of the space which happens to coincide with the space of the observer.

The picture as a picture and as a sign

But even before these paradoxes emerge, we must look upon the picture as a picture, that is, as a kind of sign, and we must take for granted that pictures can be perceived and interpreted in certain peculiar ways. Most obviously, of course, what has been said about the transparent wall of the picture facing the observer apply to all pictures (as has been more famously pointed out about the stage), but the gazes and the mirror image make this fact more obvi-

ous in the present case. In fact, already as a perceptual artefact, the picture depends for it functioning on a set of environmental spaces: the one in front of the picture, the one outside the margins of the pictorial surface, the one on the sides as well as behind the final wall of the depicted scene, on so on. These are complex issues, but before we return to them, we will have to attend to some more simple facts about the picture.

We are actually looking at an exceptionally large oil painting – or, more exactly, at a reproduction on paper (itself reproduced on the monitor) of such a canvas. Both form flat surfaces (ignoring for the moment the more pregnant texture of the oil painting), on which spots of differently coloured pigment have been irregularly disposed. But we immediately see "through" this surface onto something else: a scene taking place in a room illuminated by the light emanating from an aperture in the background; the walls of which are almost completely covered with paintings; and which is occupied by nine persons (one of which is standing in the opening in the most distant wall) dressed in typical 17th

century upper class clothing, to which are added a dog, and a canvas seen from behind. The two persons to the far right appear to be dwarfs. Of the other three persons in the foreground, one is a little girl, who is surrounded by what appears to be teenage girls, one kneeling and the other curtseying. All the persons depicted have very serious looks, and most of them direct their gaze on us. The person in the close background to the far left holds a brush and a palette, and an over-sized canvas takes up most of the left margin. Among the paintings in the background there is a mirror, which is illuminated in a peculiar way, in which two other persons are to be seen (cf. Figure 1b). Another luminous area in the background represents a door opening in which another person is standing.

To see something as something other than what it is immediately is to see it as a *sign.* As we will see (in lecture two), this is far too broad a definition, but it will have to do for the moment. From the point of view of our perception, certain constellations of areas formed by pigment make up higher-order units which we identify as such things as "a man in 17th century clothing", "a small girl of the upper classes from the 17th century", "a female dwarf", etc. It is the combination of an *expression,* in this case some areas of paint disposed in particular ways, and a *content,* such as for instance, "a man in 17th century clothing", which forms a sign. But the picture is a peculiar kind of sign. As soon as we have recognised the painter as such, we can identify his moustache, his eyes, his hair, his clothing, his brush, etc. The parts of the content "the painter" are distributed onto certain parts of the expression.

We might even be tempted to say that the sign "the painter" is really made up of smaller signs such as "the moustache", "the face", etc.; and that the face is made up of even smaller signs such as "the eyes", "the nose", and so on. Indeed, this may sometimes be a rather adequate way of describing the facts. However, if we look at Picasso's revised version of "Las Meninas" (Figure 2), it will be clear that this cannot be true as a general fact. We can still identify some strokes and dots as standing for different facial traits, but only by referring them to the whole. It is only *after* having recognised some of the constellations of surfaces as forming, for instance, the content "the female dwarf", that we can attribute the meanings "head", "eyes", "mouth", etc., to some of the strokes. The parts are thus meaningless before they are made to form wholes, just as in the case of verbal language; but unlike what happens in verbal language, the meaning of the whole is redistributed back to the parts: in a whole identified as a human body, some parts are made to signify "the head", others "the trunk", and so on. This, of course, does not happen in language.

According to the psychologist James Gibson, only human beings are capable of seeing lines on a surface as signs for something else. Indeed, apart from irregularly and arbitrarily disposed spots on surfaces, which we identify as dirt, and totally regular shapes, which we identify as ornaments, there is a peculiar phenomenon which is in some ways intermediate between these two: *irregularly* disposed spots, which however have the property of corresponding in more or less *regular* ways to things which might be perceived in the common sense world of our immediate experience, the Lifeworld.[2]

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2   It should perhaps be pointed out that the

Fig. 1.a. Detail of Velázquez' "Las Meninas"

In this sense, Picasso's "Las Meninas" is as much a picture as is the original one by Velázquez. On the other hand, there can be no doubt that this definition will cause some problems for those how would like to attribute the status of pictures to some works by Pollock, Klein, and Vasarely. Later on, we shall see what we can do to help them out.

Gibson cannot of course have meant to claim that other animals are unable to identify what the picture represents. Even doves have been known to react to photographs of human beings exactly as they react to the humans in person. But that is exactly the point: they do not perceive the picture *as* a picture – *as* a sign. A picture of a human being is to them just another instance of the category of human beings. So what they lack is the capacity for double perception characteristic of human beings – and perhaps, in spite of Gibson's claim,

also of some other hominids, at least when they have received some training.

Indeed, our perception of pictures is twofold in a double sense: it is not only that we see through the surface to the depicted scene, while retaining consciousness of this mediating space. We are also often aware of the properties of the surface itself. Is has been said by one of the eminent proponents of pictorial semiotics, Jean-Marie Floch, that it is possible to consider any ordinary picture as if it were a non-figurative painting. In Velázquez' "Las Meninas" we can hardly avoid noting the preponderance of extended, dark, relatively homogeneous, rectangular, fields and straight, almost parallel, lines in the upper part of the surface, as well at the extreme right and left margins, in opposition to the small areas of differently coloured, mostly rounded shapes, in the central, lower part of the surface. It can immediately be observed that Picasso's version preserves little or nothing of this "plastic" layer of the picture. In fact, Picassos "Las Meninas" seems to convey very

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idea of construing pictures as being in some way intermediate between dirt and ornaments is my own, though Gibson records these three categories of arrangements on surfaces.

different meanings from those which can be grasped in the original. This makes us suspect that, in some sense, the plastic layer may also contain its own series of signs, with their own expression and content.

The act of recognition and the categories of reality

For the moment, however, it will be better to delve deeper into the nature of the signs of depiction which make up the picture. In "Las Meninas", we can identify more than just general categories such as "man" or "woman", "child" or "adult", "dwarf" or "person of normal length", etc. We can identify individuals. The painter is Velázquez himself. The little girl is the Spanish *infanta* Margarita. The couple in the mirror is Philip IV and Queen Mariana. The other persons are members of the Spanish court which also can be given their name tags. Surrounding the *infanta*, of course, we discover the two *meninas*, or maids of honour, whose function explains the title nowadays given to the painting (cf. Figure 1a). Velázquez, the king and his court have (or, more precisely, had) an existence outside of "Las Meninas", and outside of the world of pictures in general. The have formed part of the privileged sphere we call reality. They are not only contents but also *referents*.

The case of Picasso's paraphrase is somewhat different. We may recognise the persons also in this picture, but only because we can compare it to Velázquez' original. Considered independently of Velázquez' work, the figures appearing in Picasso's painting can hardly be identified as anything more than, in the most favourable cases, men and women, perhaps also adults and children. Perhaps we could still place the *infanta* and the *menina* to the left in the 17th century because of the configuration of their dresses. The different persons in Picasso's work are deformed and simplified to different degrees: in the case of the two right-most figures, nothing more than a general sense of humanity seems to be retained. But although a rather classical Cubist transformation has been applied to the Velázquez figure, it seems to conserve some more personal traits: the moustache and perhaps also some of the facial traits are recognisable.

There is of course an extensive art historical literature about Picasso's painting, as there is about Velázquez' work. Art historians have been known to claim, for instance, that in Picasso's version, the man standing in the door opening in the background represents Picasso's own secretary. In fact, of course, the schematic figure created by Picasso hardly retains any property permitting us to identify it as anything more than a human being with a Spanish cloak leaning on the door post. It is of course quite possible that Picasso was thinking about his secretary while painting this figure. But there is nothing in the painting which conveys this fact to us. So although the secretary has (or had) an existence in the real world, he not only does not form part of the content of the painting, but he is no referent either. On the other hand, if it is true that Picasso changed the breed of the dog appearing in the Velázquez painting into a dachshund, because he was himself the owner of one, then of course it makes sense to say that not only has the content been changed (on the general level on which "dachshund" is opposed to "Alsatian"), but also the referent.

The painter caught in the act

It is often said that, contrary to language, pictures may only show individuals. We have seen that this in untrue, at least if pictures like those created by Picasso are taken into account (and traffic signs, pictograms, and so on). But perhaps we have exaggerated the difference between the paintings by Velázquez and Picasso. After all, we only know who these individuals are because the identifications were made by their contemporaries and have been conveyed to us by books. There are of course also other self-portraits by Velázquez, and Velázquez and others even painted other pictures showing some of the other individuals. But contrary to (some of) their contemporaries, we have never *seen* Velázquez, Philip IV, and the others in reality. We only know them from their portraits. The reference is really only made up of relationships between pictures. And at some point there is a label: "this is Velázquez". Indeed, this could just as well be a completely fictional world, if there were not so many other historical threads (not having to do with their looks) pointing to the real-world existence of Velázquez and the king who employed him. So we can be fairly sure they are real-world persons. But we cannot know much about their real-world looks. So this gives us one of the reasons for retaining the distinction between the content of the picture and its referent.

And this is also the sense in which we can identify a genuine Velázquez sign, as well as a Philip IV sign, and so on, but not a "secretary-of-Picasso" sign. The content of the former sign is sufficiently

characterised to be recognisable in other pictures. The latter one is not. On another level of generality, we can identify a dachshund sign, because there are other dachshund pictures. We cannot identify a "Picasso's dachshund" sign, even though it seems probably the change of breed was motivated by Picasso's having a dachshund closer at hand. On the other hand, in Hamilton's paraphrase of Picasso's "Las Meninas" (Figure 3), we can identify a "Picasso's bull" sign, not because we have any reason to suspect Picasso had such a bull at home, but because it appears in many of Picasso's paintings.

Even if we would have been unable to identify Velázquez, there is of course no problem in delimiting a painter sign. We see Velázquez in the process of painting. In fact, it is probably more exact to say that we see him as he steps back to look at his picture (and perhaps to compare it with its subject, the persons in front of the picture we see). But we do not even need to observe the act of painting. The brush and the palette may be described as stereotypical attributes of the function "painter", much as the archangel Michael is identified by a flaming sword, the evangelist John by a goblet, and so on. But these attributes are not placed in an indeterminate relationship to the body of the painter (as they might be said to be in Picasso's variant), nor are the outside of time: Velázquez has been caught at a particular moment in the process of touching the palette with his brush, while examining his motive, and deciding where and how to apply to paint to the canvas.

In this double sense, the original "Las Meninas" is a prototypical picture: first, it covers the spatial scene densely, taking into account more or less all those relationships between objects which are present in an equivalent perceptual situation, even though it might be seen as emphasising some of them. This is not true in the full sense of Picasso's variant. Nor is it true of traffic signs, pictograms and other "schematic" pictures. And it is not true of typical pictures of saints and archangels, for even though the person and his or her attributes may be rendered descriptively, the relationship between them is not.

In the second place, Velázquez' "Las Meninas" shows one isolated phase in the sequence of the actions termed "painting a canvas", or, more precisely, in the sub-sequence which could be described as "looking at the motive while simultaneously picking out one of several shades of colour /in order to adjust the pigment on the canvas/". In fact, this particular phase may easily be redescribed at other levels of abstraction, both higher up and lower down. And, of course, the picture renders at the same time phases of several other sequences of actions: we can catch the left-hand maid of honour in the process of kneeling down, as well as holding her hand, and even her fingers, in a particular position.

As for what has happened before this constellation of phases of different action sequences, and what is going to happen before, we can only know that to the extent that we are familiar with the type of action going on: painting, kneeling down, curtseying, etc. In Picasso's variant, however, the options for redescribing the actions at different levels of abstraction, as well as the possibilities of anticipating and projecting other phases of the actions backwards in time, are much more limited, and differently so for different figures. Of all the figures, the leftmost *infanta* is probably the

only one in Picasso's picture which offers a semantic richness coming close to that of Velázquez' personages, in the sense presently addressed.

All this no doubt has something to do with the famous paradoxes of Velázquez' "Las Meninas": they will only occur to the extent that we are able to identify part of what is seen in the picture as a representation of the painter looking at his motive. And for their existence, these paradoxes are also dependant on our identifying the painter depicted with the one who is known to have painted the canvas we are looking at. In other words, both the property of being depicted on this particular canvas in the act of painting (which is of course a likeness, that is, an *iconical* sign), and the properties of having produced the painting by applying paint to this particular canvas (which is a sign dependant on a relationship of contiguity, that is, an *indexical* sign)[3], are properties ascribed to the peculiar *persona* we call Velázquez: that is, they are part of our construal of the referent. Differently put, these are two things we are immediately aware of about the referent Velázquez, as he appears in the picture while knowing all the time that there is a lot more to know (some of which we will never get to know).

The picture as part of the world

There are thus several senses in which our perception of the picture immediately goes beyond that which is directly present to us on the canvas. Strictly speaking, of course, there are only colour spots on the canvas: already when perceiving the differently

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3   Or, rather, in our case, what we see is the reproduction of this canvas, that is an iconical sign of an indexical sign – on which more is to follow later in this lecture.

coloured shapes on the surface as persons and things, we seem to go beyond what is immediately given. And yet, it is almost impossible not to do so. We do not need any "key" to see what is depicted, at least not at the highest levels of abstraction: "a man", "a girl", "a dog", etc. No doubt we need some experience of the world. Some rudimentary historical knowledge is also useful, in order to see the figures as 17th century personages. But we do not need any specific "key", such as may be required for some "picture riddles" (or "droodles", as they have been called), such as the square with a small circle and a triangle, which could be taken to show an olive dropping down into a martini glass, or the navel of a girl in a bikini seen through an opening. In fact, even in Picasso's "Las Meninas", there is a lot to see without having recourse to any such specific instructions. To go further (to less abstract levels), however, we have to use the original "Las Meninas" as a key.

A second sense in which the picture immediately seems to give access to more than it literally contains was considered in the last section: our anticipation, for instance, of the painter's putting the brush onto the palette, than to detach it from it, and applying the brush to the canvas – which goes together with our parallel ability to project into the past, at least vaguely, the actions preceding the scene in the picture: the first touches of the brush applied to the canvas, even the raising of the canvas inside the room, etc. We will certainly need some not so very specific knowledge of the world in order to identify the type of action going on. So the scene which we perceive directly is placed within the framework of a temporal sequences of

typical happenings in the world with which we are familiar.

There are yet other senses in which the picture can be seen as a part of the real world given to our perception. Already as a *surface* the picture forms part of a greater whole: the lines extended from the objects close to the edges of the picture are felt to continue on outside of the pictorial surface. More obviously, this is true of the *scene* which we observe in the picture: the canvas erected at the left-hand limit of the scene, for instance, is not perceived to be cut off where the depicted scene ends. If so, we could hardly have identified it as a canvas. Nor do we doubt the presence within the same fictional space of those pictures hanging on the wall in the background which are partly covered by the canvas or the bodies of the depicted persons. We also take for granted that the door in the background leads on to further rooms, and that the window opens up onto the outside world. What is more, we never doubt that fictional space continues *in front of the pictorial scene,* beyond the limit of the depicted space. Most probably, there are other walls there, other doors and windows, and perhaps other paintings on the walls. Other persons may also be present in that room, as suggested by the fact of most gazes being turned in that direction. We know that what most tends to catch the attention of human beings is the presence of other human beings, and, in the second and third place, other animals or other things which move. In this particular case, there is also the presence of what we tend to identify as a mirror image which confirms this interpretation.

Not so much is left of this is Picasso's version of the scene, apart from the door

opening and the window. But contiguities as well as relationships between parts and wholes are very important in other ways to the interpretation of Picasso's picture. In the case of some of the figures, we even have to put body parts in rather different styles which appears more or less independent of each other together again in order to identify the personages. This is perhaps more obviously true in the case of the painter figure, which in a typical Cubist manner (of which Hamilton gives other examples) is given in separate perceptual perspectives. What particularly seems to be lacking in Picasso's version, however, is the frontal space: the gazes of the personages are either directed elsewhere or are too indeterminate to suggest any presence in front of the picture. And the mirror can only be read as a mirror by using the original "Las Meninas" as a key.

The depictions in the picture and the picture depictions

Velázquez' "Las Meninas" is related in two rather obvious ways to other pictures: it depicts some of them, and it has itself been the source of a number of later pictures. The pictures on the wall, just as the persons, can be identified – or, at least two of them can. They are works by Rubens and Jordaens, both treating themes from Ovid's "Metamorphoses" – or, more exactly, as art historians are wont to tell us, they are copies after those works made by Martínez de Mazo (though this is, as far is I understand, not a piece of information which can be gained from scrutinising "Las Meninas" itself but merely something which can be extrapolated from your knowledge of the royal inventories). As part of the surface of "Las Meninas", these pictures are

thus pictures of pictures of pictures – but to the observer, they are indistinguishable from pictures of pictures. The interesting thing about them, however, is that they are representations of *specific* pictures. There clearly are other pictures seen to be hanging on the wall of the room depicted, but they cannot be identified. They are thus only *generic* picture representations: they merely represent the *category* "picture". The crucial factor here is not whether we can see what is represented. It is whether was is seen can be projected onto some original picture known from other sources. The villas of Roman antiquity are full of generic picture representations, painted in trompe l'œil on the walls. The motives can often be clearly distinguished, but we, at least, are unable to refer them back to some originals by Appelles and Zeuxis.

"Las Meninas" is also at the origin of many other pictures. Most obviously, to us, it is at the origin of many reproductions, one of which is found as an illustration to this lecture, and others which appear in picture books about Velázquez' work, or are sold as posters in museums and art shops. In a rather similar way, it is probably also at the origin of some other painted pictures. Perhaps Martínez de Mazo made a copy of it also, though I have never read about it. But surely, since Velázquez' time, there have been art students visiting the Prado and trying to imitate the master's work as best they could. These copies no doubt differed more from Velázquez' original work than our photographic reproductions (though of course they were more similar to it in some respects, such as texture). It seems proper to say, then, that those painted works, just as the reproductions, are in some sense examples, or rather *tokens*, of a type consti-

tuted by Velázquez' original work. But it would be curious to maintain that this is true in the same sense in which the word "Velázquez", in its written form, contains two tokens of the letter type "z".

There is actually two differences here. It seems reasonable to say (at least if you are not a Platonist), that previous to the creation of the first token of Velázquez' "Las Meninas", there was no type corresponding to "Las Meninas". So there was a creation, at a particular time and place, of a first token, which constituted the type, which then could give rise to further tokens. It makes no sense to say the same thing about the letter "z" or the corresponding sound. Now doubt the letter was invented at some point in time, and the sound may has metamorphosed from some different sound at some moment: but, as part of some language (or some name system), it is part of the resources always available to the user of a particular language – as long as it is (the same stage of) the same language.

But there is of course also another difference: by putting together a lot of letters and words (just as I am doing just now), one creates a type of a text, which then may be reproduced in numerous books – or downloaded to a number of web-browsers. So language does also lend itself to the creation of types originating in a first token. Traditionally, however, we do not tend to think much about the first token of a written or printed text (unless it is one of the *incunabula*). Pictures are different. Or at least, pictures which we call art are different. The case is less clear in other instances. In part, at least, this has something to do with the kind of channels in which pictures circulated, and the social purposes which art attributed to them. Some such

sets of channels, in combination with a number of socially anticipated intentions, together with some peculiar ways of producing pictures, have, under historically changing circumstances, been identified with the sphere of art.

Then there are of course those pictures which have been engendered by "Las Meninas" in a more convoluted way. Picasso's "Las Meninas" is not just a token of Velázquez' "Las Meninas". Nor is Hamilton's "Picasso's Las Meninas" really a token of Picasso's work. One would rather think that each refers to the earlier work while adding some commentary to it. In fact, as we shall see in a later lecture, Hamilton's work actually refers to, and comment upon, both Velázquez' and Picasso's "Las Meninas". One may wonder, then, in what way these works are different from those of the art student trying to imitate the masterwork in the Prado – and those of a imagined Martínez de Mazo churning out copies of Velázquez' painting for all the members of the court. In part, no doubt, the status of the former works are different because they differ from the original in much more obvious and systematic ways. And, in part, they are different, because Picasso and, to a lesser extent no doubt, Hamilton are important figures in the world of art.

It has been said that, by depicting other pictures, Velázquez emphasises the sign character of his work (Lotman 1990: 54ff). If so, by depicting Velázquez' work, Picasso and Hamilton continue strengthening the sign character of the picture, even though the first picture depictions, of the Martínez de Mazo copies, become less prominent in the latter works.

The picture as a thing in the world

Possibly the most interesting picture depicted in "Las Meninas" is the one we cannot see, or more precisely, which we can only see from behind. What is the canvas showing to the persons at the other side of the pictorial surface? Perhaps it is merely an empty canvas. But the gaze of the painter suggests that it is at least partially a representation of the frontal space in which we are also located. Some commentators, however, have suggested that what Velázquez here is in the process of painting is precisely "Las Meninas" (cf. Boudon 1979; Searle 1980). In many ways this is a strange proposition: it certainly serves to augment the paradoxical character of the representation. One of the reasons for this suggestion (formulated by Searle) is that "Las Meninas" is the only painting by Velázquez showing the royal couple – even if only in the mirror. If so, the couple only make up a small detail of the scene represented in "Las Meninas", the mirror image. Interestingly, however, Searle's argument is based on relationships between pictures.

The picture does not only represent a fictive scene. It also organises the space around itself. In fact, the picture is not just a flat surface: it is an object with three dimension and six sides. But only one of these sides attracts our attention and/or is traditionally considered to be the front side of the picture thing: the surface. The other sides of the object we call a picture do not signify in the same way – not in the way of a picture. We can to some extent see two of these others sides of the picture depicted in our picture, and if we were in front of "Las Meninas" in the Prado, we would be able to see all but the back side. In the reproduction accompanying our text, on the other

hand, the other sides are hardly visible to the human eye. This observation applies to the lateral side of the picture, as reproduced in a book, for in most books nowadays, the back side of the picture would be identical to the front side of another picture. On the Internet, as in computer space generally, the idea of the back of the picture does not have any interpretation at all.

It could be said that the museum, the book, and the web are different *channels of circulation* for the picture: the ways in which they are brought from the "sender" (creator, patrocinator, or other kind of originator) to the "receiver" (the one perceiving and/or interpreting it). Often enough, but not necessarily, different channels of circulations are connected to different *manners of construction*. In this case, it seems that the surface is becoming ever more independent of the thing of which it constitutes one of the sides. In order to circulate through museums and galleries, Velázquez' work may remain an oil painting. If it is to circulate more widely, to homes and public places, it would stand more chances being transformed into print. And if it is to circulate on the Internet, is has to be made into pixels. Manners of construction and channels of circulations are also in principle independent of *socially anticipated functions* or effects. In the present case, the picture we are considering was meant to be a work of art (which in itself was not the same social practice as it is today), but we are using it here mainly as an example of any case of depiction. It is put to a pedagogical use.

The inscribed positions of the observer and of the painter

If we think of "Las Meninas" as a solid object, similar to the canvas which it de-picts from behind, it is easier to see that is occupies a particular position in the world (which is only vaguely inherited by the book reproduction and the web picture). It places the observer in front of the frontal side. In a picture using linear perspective, as "Las Meninas", the inscribed position of the observer may be more exactly determined. There is only one place of observation from which the depicted scene is rendered in a geometrically correct way. This position could be marked out on the ground in front of the picture. In this sense, the picture object contains its implicit exhortation: this is the place from which I like to be observed.

This is not to say that the picture can only be seen from this position. Our perceptual system has the ability to recognise objects from all but the most extremely divergent points of view (such as anamorphic perspective). In fact, we do not observe the perceptual world in the way presupposed by linear perspective: with a single eye immobilised in a fixed position. Therefore, it is no more difficult to interpret the scene of the book reproduction or the web picture than that of the original canvas. Linear perspective is simply an additional sign impressed on the pictorial surface.

In this sense, "Las Meninas" is just like any other picture. What is peculiar about Velázquez' picture is that most of the persons depicted, including the painter, seem to be looking in the direction of the point in front of the canvas coinciding with the position of the inscribed observer. The fact that the painter is looking in that direction is especially remarkable, for there is every reason to think that what the painter is looking at is also what he is in the process of depicting.

Not only is the position of the observer inscribed in the picture; the position of the painter also appears to be so. According to Searle, at least, we look upon the depicted scene as something the painter himself has observed from the particular position indicated by the perspective. There is nothing paradoxical about that: it simply means that what the painter sees is also what the observer is meant to see. Nor has the problem anything to do with the simple fact that the painter depicts himself in the process of painting: in Courbet's view of his own workshop, there is nothing strange, because he depicts himself as any other painter might have done. In this particular case, however, the relationship between the inscribed positions of the painter and the observer together give rise to a paradox: the depicted painter is looking at the position where we should be. It thus seems that he is depicting the very observers of his painting. He is depicting us.

The paradox is the result of one (historically very important) way of constructing pictures. In would not arise in many mediaeval pictures, nor in Russian icons of a later age, because at least the central parts of these pictures have been conceived as if observed (by the painter, directly, and perhaps by God, metaphorically) from the back side of the painting (cf. Uspenskij 1976a, b, c). The painter is not depicted. Yet his position is marked in the picture. As observers, nevertheless, we are incapable of taking up the same position as the implied painter. We are excluded from the dialogue. The possibility of identifying with the perceptual perspective of the painter is only given in a particular type of picture.

Reflections of (and on) other rooms

Among the paintings on the wall in the background, there is a square which has always been taken to be a mirror. The reason for this is no doubt its higher degree of reflexivity and illumination, together with a greater fuzziness, which distinguishes this square from those which represent paintings. If so, the scene rendered is a direct imprint of real-world objects (in this case, persons) present in the world imagined to continue in front of the pictorial surface. From this point of view, the mirror is like the photograph, or like the tracks left by an animal on the ground – except that the mirror only retains the imprints as long as the objects continue to be present in front of its surface.[4] Since we are unable to see the depicted couple directly, however, the mirror is here the only sign adverting us to its presence on this scene. Unlike what is often said to define the sign, the mirror thus requires the presence of its object. But it allows it to be present elsewhere – not where we are looking. Indeed, the royal couple is absent from the scene which we are observing. The mirror is not necessarily redundant, as in the case when somebody is scrutinising his own looks. As the rear mirror of the car, it here allows us to discover something new.

In this case, this gives rise to another paradox: the scene reflected by the mirror is identical to the inscribed position of the observer. *We* are the couple in the mirror. We are the royal couple. But of course we do not quite believe the sign. There is a gap between the sign and the reality.

Like the door opening, the mirror is a way of opening up the depicted space onto

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4   This is of course not Eco's view, but we will see in lecture three why he is wrong.

the environment; it adds a dimension, Lotman (1990: 56), maintains, much like the sound in the cinema coming from something which is not visible in the scene. In another picture by Velázquez, "Venus at her mirror", the mirror image actually shows us something which is *in* the scene, the face of Venus, although it is invisible from the point of view which the picture adopts on the scene, which only allows us to observe Venus in profile. In "Las Meninas", however, what the mirror shows is not part of the scene, even from another perspective. It displays another part of space.

The effect of the picture is to crown the observers into king and queen. Since the painting was made for the royal couple, this operation has not always been unrealistic. To Philip IV and Queen Mariana, the painting was really a mirror (cf. Boudon 1979). We, however, are only participating in the long row of visitor to the Prado, who have been king and queen for a few minutes.

The title and the theme – and the act of depiction

Some people maintain that pictures, like perceptual reality, only gain a meaning once we assign to them a verbal label. We know this picture under the title "Las Meninas". It tells us rather little about what is seen in the picture. It refers to the two young women surrounding the *infanta*, the maids of honour. In fact, this title was only invented in the 19th century. There is no known contemporary title, but some early inventories describe it as showing the painter painting. Later on it was known as "The family of Philip IV". This title also seems curious: several persons, including Velázquez and the dwarfs, are not members

of the royal family, and the main members of it are only present in the mirror.

None of the titles actually seems to account for what we seen in the picture. They differ in singling out as important different portions of the depicted scene. But none of them are very convincing in that respect. The construction of the scene may be more important. The geometrical mid-point is found exactly between the eyes of the *infanta*. But the middle of that semi-circle which is created by the painter, at one extreme, and the right-most courtier, at the other, is occupied by the mirror, in which the royal couple is to be seen (cf. Foucault 1966). Both the two imaginary mid-points of the scene, of which one is somewhat displaced in relation to the other, thus correspond to depictions of members of the royal family. This suggests that the royal family really forms the central theme of the picture.

But it could also be proposed that the real theme of the picture is not in the scene depicted, but in its relation to the potential observers. Not only does the scene include a depiction of the painter himself in the act of painting, but its very organisation suggests that what is depicted on the canvas forming part of the scene is the observer himself.

In a famous passage, Michel Foucault (1966: 31) suggests that "Las Meninas" is a representation of what he calls "classical representation", in which the sign appears to be separated, not only from its model, but from the subject which is at liberty to create it as well as to perceive it. This is a curious affirmation, for, if anything, our discussion of the painting has shown it to point very clearly to the interrelation between the picture and that which is depict-

Fig. 1c. Detail of Velázquez' "Las Meni-

ed, and to the relations of the latter to the world around it; and it has shown the position of the observer to be prescribed by the very object making up the picture.

According to John Searle (1980), "Las Meninas" is about two things, one of which is invisible (the front of the depicted canvas, supposedly identical to "Las Meninas" itself), and the other one being outside the picture (the imaginary position of the painter). Even if these elements are important, they could hardly be so, otherwise than as part of a more general strategy: they single out the act of depiction itself. Jurij Lotman (1990.55f) maintains that, because it depicts other depictions, and even the painter in the process of creating a picture, and because it lets the mirror reflect the subject matter of the painting, "Las Meninas" transforms the relationship of the picture to the depicted object and the nature of visual thinking into the theme of the painting. We have seen that there is some truth to this. But to a large extent, something similar could have been demonstrated in the case of any picture.

A Saussurean look at "Las Meninas": The sign

Many people think that semiotics consists in some kind of development, or application, of things said by the linguist Ferdinand de Saussure, as well as by the philosopher Charles Sanders Peirce, possibly to objects not considered by these thinkers. This is a strange idea, already because the domains staked out by Saussure and Peirce cover very little, if any, common ground. Nevertheless, we shall just for a short while entertain the fiction of looking at "Las Meninas" from the point of view of Saussure and Peirce.

As far as I know, there is only one passage (not included in the *Cours*), in which Ferdinand de Saussure [1871-1913] mentions the picture as a possible object of semiotics (or "semiology", as he preferred to call it). In fact, the picture is also present in another passage, by implication. To Saussure, semiotics is only concerned with conventional signs. But he tells us about the mime that it is sufficient for it to have a rudiment of conventionality for it to become a subject matter for semiotics. Such a rudiment of conventionality is certainly found also in pictures. The explicit remark by Saussure about pictures concerns their dimensionality: he observers that they have several dimensions, contrary to language which only has one, that of time (or of space on the written page). This is, as I will suggest below, a passage in which Saussure forgets his own essential lesson: that the important thing is not what is materially there, but what is relevant.

The basic concept of Saussure is the *sign,* understood as the union of *expression* and *content,* where the latter is distinct from the object of reference. In verbal language,

the expression is (an idea about) a sound, and the content is a concept, or (an idea about) persons, things, and other phenomena of the world. Analogously, in a picture, the expression is (an idea about) colour spots disposed in a particular way on a surface, whereas the content is (an idea about) a visually perceptible situation. What is common to the different "Las Meninas" by Velázquez, Picasso, and Hamilton is (on a very high level of abstraction) the content: a room with nine persons, a dog, a canvas, some window openings, a door opening, a mirror image, etc. The three corresponding expressions have much less in common, apart from consisting of (the idea of) paint (no doubt made out of rather different materials), or, more generally (to include Hamilton), marks on a surface. Not even the dimensions are the same.

The content can be further divided into smaller parts, but not in the same way as language, where you add one word to another. Contents such as "a man with 17th century clothing", "a young woman with a crinoline", "a small upper class girl from the 17th century", "a female dwarf", "an Alsatian", etc., can readily by conveyed without all the details included in Velázquez' rendering. Many of them are still identifiable in Picasso's version. Those parts of the expression which cannot be exchanged without giving rise to another content, as well as those parts of the content which cannot be substituted for others, without another expression being the result, are called *form* by Saussure: other traits, which may vary freely, are called *substance*. If the content form is "a small girl with long hair adorned with a bow wearing a crinoline and having a stiff corporeal attitude", then the corresponding expression form only requires

a small bundle of traits which are present also in Picasso's version, and even, given some detective work, in Hamilton's version. If the content form is "The Spanish *infanta* Margarita who was five years old in 1656", however, much more details are required, which are only found in Velázquez' version (and even so, of course, only there for those having some background knowledge; cf. Figure 1c). At the other extreme, the content form for "human being" requires a very small amount of expression features: in some cases also Picasso, and even Hamilton, manage to convey this content with very limited means.

It will be noted that these different meanings are not placed after each other: rather, they are incrusted into each other. The bundle of features necessary to convey the content "human being" is part of the content representing "a small girl with long hair adorned with a bow wearing a crinoline and having a stiff corporeal attitude", which itself is part of the content "The Spanish *infanta* Margarita who was five years old in 1656". This, of course, is an important way in which pictures (and perceptual reality) are different from language.

A Saussurean look at "Las Meninas": The system

According to the Saussurean view, the sign, as a whole, made up of expression and content, stands for reality, and there is an *arbitrary* or *conventional* relationship both between expression and content, and between the sign as a whole and reality (that is, the referent). In the case of language, this means, in the first case, that the sound making up the expression is usually not similar to the content it designates; and,

in the second place, that the way language carves up reality is not (entirely) given by (perceptual) reality itself. The picture sign is obviously different in these respects, but, like the mime, it certainly retains a *rudiment of arbitrarity*. The expression of the content "Velázquez" is no doubt to some degree similar to reality (or to other pictures containing the same sign); but it is also flat, and made up of paint. And while the sign "Velázquez" in Velázquez' own painting, and that by Picasso, must be supposed to correspond to the same figure of the real world, that is, the same *referent*, their contents are quite different; indeed, in this case it is quite clear that they analyse the referent in quite different fashions, Velázquez exclusively in terms of proper parts, but Picasso also in terms of perceptual perspectives.

Another important distinction made by Saussure opposes the *system* to its different *realisations*. The system is made up of a series of units and the rules for their combination. In language, the units are the sounds (corresponding more or less to letters), which are combined into words according to certain rules, and, perhaps more obviously, the words, which are put together to form sentences following particular rules. This implies two things: there is a repertory of standard units, which may be repeated over and over again, at different moments in time and space, still remaining the same units; and there are restrictions on the way which these units may be put together to form higher-level units. In the first case, we are concerned with the difference between the way in which a word appears in a dictionary, and the way it appears in a text. In the second case, an example would be the rules of grammar.

In the case of pictures, the first requirement is only slightly problematic, but the second is much more so. It is often maintained that, contrary to language, pictures are unique, but this is misleading. The assignment of particular value to the first instance of a picture is a norm prevailing in the sphere of art, but there, too, even before the advent of mechanical reproduction, copies of masterworks have always been made. They were of course slightly different from the original, more so than the photographic reproductions of more recent ages; but every realisation of a standard unit is somewhat different from the others. The problem is only whether we consider this difference to be part of the *form* or the *substance;* in other words, whether it is a difference which makes a difference. In the sphere of art, it is. But as far as other uses of pictures are concerned, there is no reason for it to be relevant.

Discussing pictures as we just have is like talking about language at the level of texts. But it is not impossible to generalise, to some extent, the argument to parts of pictures. There is an *infanta* sign which does not only recur from one reproduction of "Las Meninas" to the others, but also, given some suitable principle of relevance, to other pictures by Velázquez and Martínez de Mazo, and, with some even wider definition, to "Las Meninas" by Picasso and Hamilton. The trouble is of course that there is not just one fixed principle of relevance, and there are even possible units which overlap with the *infanta* sign, such as the "little girl sign" (another level of abstraction) and the crinoline sign (another part of the whole).

The reason pictures are different is that they do no normally form repertories.

This is not true of all visual signs: there are well-established gesture languages, from sign system used by the North American Indians in inter-tribe communication (as analysed by Garrick Mallery) to the different varieties of Sign languages used by deaf-mutes today. More in particular, there are repertories of pictures used for particular purposes, such as traffic signs, the pictograms used in public spaces, the pictures on packs of cards, the ideograms which in some historical contexts were at the origin of the alphabet, etc. Some such systems may be analysed into smaller units which are then put together to form complete signs, as most certainly is the case with the figures used on clothing as washing instructions, but also perhaps with prehistoric petroglyphs. Most pictures, however, seem to exist on their own, without forming part of a series; or they become part of the series only *post hoc,* as in the case of the different "Las Meninas".

And this is why one of the most famous Saussurean distinctions is of little use when talking about pictures, that between syntagm and paradigm.[5] The *syntagm* is the order in which units are combined. The *paradigm* is the set of units able to occupy the same position in the syntagm. As Saussure much insisted, language is linear, and thus units can only be put together one after the other, in time in spoken language, and in space in writing. This is the context in which Saussure argued that pictures, in contrast, are multidimensional: their units can be combined on multiple axes. Yet I think Saussure was wrong. Not only is there no rules for pictures stipulating that the Velázquez sign must appear somewhat

to the left and above the *infanta* sign rather than the reverse: there is not even any rules stipulating that the Velázquez sign goes together with the *infanta* sign, whereas the Picasso sign can be exchanged for the Velázquez sign (as it is in Hamilton's picture). Thus, even if we consider syntagm and paradigm apart from their deployment in time and space, as *conjunction* and *substitution*, respectively, they do not apply to pictures.

Or, rather, they only apply to pictures in special cases. Given, Velázquez' "Las Meninas", Picasso's version may be seen as a different syntagmatic variation, using (at some rather high level of abstraction) the same units; and Hamilton's version would rather appear as a case of filling the same syntagm with different paradigmatic units. But, first of all, this only has a sense when relating these pictures to the first version of "Las Meninas" – and most of the time, there is no such primary version. And, in the second place, there is no limited number of variations which are allowed by the syntagmatic rules, nor any finite number of paradigmatic units capable of occupying the different positions in the syntagm. We are here concerned with a very much derived meaning of meaning, which is better understood at the level of rhetoric: as producing meaning by deviating from that which is expected.[6]

Syntagms and paradigms also have other uses in pictures. There are no doubt some particular pictorial genres in which there is no absolute freedom of placing all kinds of things together and in any order. Thus, for instance, Russian icons allow only saintly persons to be placed in the

5   The latter term was really coined by Hjelmslev, but the general idea is present in the work of Saussure.

6   An important domain of pictorial semiotics, which we will discuss in a later lecture.

middle of the picture, and ordinary people at the margin (cf. Uspenskij 1976a, b, c). Conceivably, other pictorial genres have rules for the concomitant presence and order of combination of colours and shapes. In the second place, paradigms may be present in much of what is depicted. For instance, when Picasso places a dachshund where Velázquez painted an Alsatian, he has recourse to what may very well be termed a real-world paradigm (a classification system) of dogs; and when Hamilton introduces a bull instead of a dog, he refers to the over-arching classification system of animals. Another system having both syntagms and paradigms depicted, most obviously in Velázquez' "Las Meninas", is clothing: there are rules (somewhat different today than in the 17th century) for what pieces of clothing may be combined, and for what units may be substituted for one another at a particular place. Indeed, the clothing system really is what Saussure erroneously claimed about the picture: multi-dimensional. There are rules for which pieces of clothing may go together both *on different body parts* and *at different layers* in relation to the bodily surface. In the picture, however, only the first of these dimensions is visible.

Of course, Hamilton does not only substitute a bull for a dog and a Picasso figure for Velázquez : he puts his picture together from units appearing in many Picasso pictures. However, if he thus projects a Picasso paradigm onto the Velázquez syntagm, it is a paradigm only existing *post hoc,* after Picasso has gone through all his different styles.

In conclusion, then, syntagms and paradigm are not basic principles for the organisation of pictorial meaning. They appear either *before* the picture, in what is depicted, or *after* the picture, in the relationship between sets of already existing pictures. They are either *referential* or *intertextual*. It does not make much sense to talk about a picture system. Rather, there are resources at hand which permit the creation of meaning by means of pictures. These are different in many respect from the resources at hand – units and their combinations – allowing for the creation of verbal signs.

Peircean perspectives on "Las Meninas"

Contrary to Saussure, Charles Sanders Peirce [1839-1914] did not use language as his model. However, he was not much interested in pictures either. The advantage of the Peircean model is also to a large extent its disadvantage: it is so general it fits in with everything. It will not tell us anything about the *specificity* of the picture sign.

In fact, I am not sure it tells as anything about the specificity of the sign, in the sense in which the Saussurean sign is one, or in the sense in which we have above tried to characterise the picture sign. It appears to involve meaning in a much broader sense. The Peircean sign seems much more akin to a situation of communication. The *object*, then, is that which attracts the attention of somebody, and inspires him to produce an artefact, called *representamen*, which, when it is related back to the presumed object, incites somebody else to produce an *interpretant*. Thus, for instance, when Velázquez looks at the infanta, he is motivated to produce a configuration of shapes and colours on the canvas, which I interpret as corresponding to the *infanta*. My *immediate interpretant*

(corresponding to the *immediate object*) is really something like "a small girl with long hair adorned with a bow wearing a crinoline and having a stiff corporeal attitude", etc. If I had been a contemporary of Velázquez, it might have been sufficient for me to make some further inquiries within the real world, to arrive at the *dynamical interpretant* corresponding to the *dynamical object* "The Spanish *infanta* Margarita who was five years old in 1656", and so or. As it is, I will have to be content with other signs – books about Velázquez, about the royal family, etc., other pictures, and so on – in order to reconstruct by these means some similar dynamical object. In principle, I can go on for ever, hoping to reach one day the final interpretant.

What this means is that the process of interpretation is never finished. It goes through many phases and it never really arrives at the end. This applies to perceptual reality itself. If I meet the infanta herself, her appearance, just as well as Velázquez' picture, may trigger off the process of interpretation. It is in this sense we must understand that to Peirce the universe is profused with signs.

For some purposes, such a conception of meaning is useful; for others, it is not. It will not tell us what is peculiar about pictures. It may be elaborated, however, in some rather un-Peircean ways, in order to allow for the necessary types of comparisons. Yet there is some clues in Peirce's own work for these elaborations.

Everybody is more or less familiar with the three relationships between representamen and object (or, as I will continue to say, expression and content) which Peirce distinguishes: *iconicity* when there are some properties they share, quite apart from the sign relation ; *indexicality*, when they are related in some way in the real world, independently of the sign relation; and *symbolicity* when their relationship is the result of a specially introduced rule. As we will see, these notions really have a much wider application than the concept of sign, but they remain relevant to it, and they are most easily understood in relation to the sign. As any elementary handbook of semiotics will tell us, the picture is certainly an iconic sign, the reproduction, since it is based on a photograph, is an indexical sign, and the title is obviously symbolic, in the Peircean sense.[7]

But our preceding discussion has already hinted at one way in which we will have to make the Peircean trichotomy more precise: we cannot take it to distinguish objects, but only relations between objects. In this sense, there is nothing which is an icon, an index, or a symbol. Rather, between some objects which we identify as expressions and contents, relationships are to be found which may be described as iconical, indexical, and/or symbolic. Thus, the works of Velázquez, Picasso, and Hamilton are all iconical. And while there is certainly a sense in which Velázquez' work is "more iconical" than the others (in relation to the most obvious content), it also has indexical and symbolic traits, just as the works of Picasso and Hamilton, both in relation to the same content, and to other, less obvious contents (such as the continuity of the surface or the scene). Much more will have to

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7   The term "symbol", as it appears within the Peircean triad, is very problematic to use: in Saussurean terminology, for instance, the same term stands for a particular brand of the iconic sign (as we will see below), and in many other connections it is simply used in the way we employ the term "sign". In this lecture, however, we will follow the Peircean usage.

be said about this later. Suffice it to say, for the moment, that the Peircean distinctions are useful, only to the extent that they are complex, and can be reconstructed within a wider framework.

The picture as a cognitive-semiotic operation

The picture must be seen within much wider frames than those of art history. Art historians will never forgive me for saying so, but their discipline is reductionist, not only for excluding pictures not having any "aesthetic" properties, however those are defined, but in particular because it remains focused on the small world of art, when pictures should really be studied from the point of view of world-history, not simply the human kind, but that of general biology. Pictures are the result of peculiar ways of thinking, of "visual thinking", in a deeper sense than that favoured by Gestalt psychology, or rather, more specifically, of "pictorial thinking".

In this sense, the "graphic act", by means of which figures are created on surfaces (giving rise to writing as well as pictures) is a specific type of cognitive operation, a dual kind, which could more in particular be called a semiotic operation: one which requires us to separate clearly that by means of which the thinking is done from that about which something is thought. The emergence of the graphic act is an important moment in the development of the child as well as of the human species, although is has so far been somewhat neglected by most of those who have written about the process by means of which mankind becomes distinct from other animals. There are reasons to believe that language only would not have brought us very far, if it had not been assisted and complemented by pictures. Nothing of this can however be clearly seen, before we have discussed the specific differences between the semiotic resources offered by pictures and language, respectively.

The picture as socio-semiotic operation

Nothing of what has been said above is meant to suggest that pictures do not have a part to play in that domain that some psychologists would place in-between child development and the development of the species: cultural history. Indeed, this is also a way in which pictorial semiotics goes beyond art history (though perhaps not in the sense of a general "science of pictures"). In is obviously interesting to place the works of Velázquez, Picasso, and Hamilton within the sphere of cultural semiotics, in which they will not simply be the creations of famous individuals, but artefacts produced by means of specific, historically dated, semiotic operations. The point is, once again, not simply to produce an "art history without names", but a history of possible socio-semiotic operations. Again, this is only possible once we have analysed the specific resources offered by the semiotic sphere of pictures.

Summary

The goal of this section has been to indicate in what way the questions asked by pictorial semiotics are different from the kind of questions addressed to the same objects of study by traditional disciplines such as, most notably, art history. We have seen that the interest of pictorial semiotics is directed to *general*, rather than particular, facts, and that it is a fundamentally

comparative approach: it tries to find out in which way the resources put at our disposal by picture-making are different from those, for instance, of verbal language. We are involved then, with the different ways in which pictures may be used or, more precisely, the *constraints* upon their usage, as well as the *possibilities* they offer. From our point of view, then, pictorial semiotics is concerned with *the place of pictures* within the process making the human being into a very particular animal indeed, as well as with the position taken by pictures in different historically given societies.

1.2. Theoretical beginning : Semiotics as a distinctive discipline

Before we embark on the semiotic study of pictures, we need to have some inklings about what this involves. Elsewhere, I have argued that semiotics cannot be considered to be some kind of method, a "model", a particular philosophical tradition, or even an "interdisciplinary perspective", whatever that may mean; nor is it simply a critique of ideology or a "meta-analysis"; but it must be taken to be a science in its own right (cf. Sonesson 1992; 1993a, b; 1994a, b; 1996a). This seems to leave us with only one way of looking upon the interplay between semiotics and other enterprises such as art history, literary history, general history, archaeology, psychology, sociology, and so on : that semiotics may function as an ancillary science to any of them, just as they may play the same part in relation to semiotics, when the latter is pursuing its own aims. In the following, I will take a somewhat more sceptical stance concern-

ing the possibilities of semiotics for becoming a science; but I will do so for historical and social, rather than systematic, reasons

Out of the semiotical soup shops: Semiotics and Philosophy

From an epistemological point of view, it seems rather simple to ascertain that semiotics can in no way be a method or a model. Not to overburden our argument, let us define a *method* as *a series of operations which might be applied in ordered stages to an object of study*, with the goal of *yielding information of a particular kind about the object studied;* and let us similarly decide that a *model* is a *simplified, but still more or less iconic, representation of the object studied* which can be more easily manipulated than the real thing, and which (ideally) has the advantage of representing *classes of objects of a particular category*, rather than a single object, so that, when methodological operations are applied to it, it yields information about the category of objets concerned.

It should be obvious that semiotics cannot offer anything of the kind – or, rather, it offers too much of it. For semiotics, just as all other sciences, contains a wealth of models, as well as a panoply of methods. When one particular model and/or method is attributed to semiotics, it is obviously being confused with one of its manifestations having course during some particular period, most probably the movement know as French structuralism, which was popular in the 1960:ies and 70:ies, but which has since lost its relevance in most quarters. It may rightly be said about French structuralism that it tried (mostly in vain) to apply a linguistic model (itself abusively derived

from the linguistic structuralism developed, notably, by Saussure and Hjelmslev), as well as to implement (but completely failing to do so) the method of the same linguistic school.

Semiotics as such is not restricted to any single method, but is known to have used several kinds, such as an exhaustive analysis of concrete texts, or *text analysis* (comparable to distributional analysis in linguistics and "explication de texte" in literary studies), as well as classical *experimental technique* (well-known from psychology) and imaginary variation of properties, or *system analysis,* reminiscent of the kind of reasoning found in philosophy, most explicitly in phenomenology. In addition, semiotics has employed a hybrid form of text analysis and imaginary variation which I have elsewhere called *text classification,* notably in semiotically inspired rhetoric.[8] Nor is semiotics necessarily dependant on a model taken over from linguistics, as is often believed, although the *construction of models* remains one of its peculiar features, if it is compared to most of the human sciences. Indeed, semiotics differs from traditional approaches to *humanitas,* whose domain it may partly seem to occupy, in employing models which guide its practitioners in their effort to bring about adequate analyses, instead of simply relying on the power of the "innocent eye". After having borrowed its models from linguistics, philosophy, medicine,

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8   Bouissac (1999a, b) also talks about four "ways of acquiring knowledge" within semiotics and elsewhere, which partly correspond to my division: "experiment" and "reasoning" has obvious parallels, "serendipity" would for me be something occurring at certain moments within the other strategies, and "meta-analysis" is an aspect which I have not mentioned, but to which I will turn below.

and mathematics, semiotics is now well on its way to the elaboration of its proper models (cf. Sonesson 1992a, c; 1993a, 1994a, 1996a, 1998).

Nor should we adopt the popular preconception, according to which the semiotic field is inhabited simply by the followers of Peirce and Saussure. In the first place, there would be no reason (more than a superficial terminological coincidence) to amalgamate two such dissimilar doctrines as those represented by the elaborate but fragmentary philosophy of Peirce, and the marginal, if suggestive, annotations of Saussure. But, more importantly, in adopting this point of view, we would be unable to account, not only for the semiotical work accomplished well before the time of our two cultural heroes, be it that of the stoics, Augustin, the scholastics, Locke, Leibniz, or the ideologues, but also for much of contemporary semiotics, some parts of which are not particularly indebted to any of the forefathers.

In an article in which he says many sensible things in defence of semiotics, Umberto Eco (1988: 323ff) comes up with a very strange conception of what the latter is: on the one hand, he admits that there are certain specific semiotic sciences, such as those which study the interpretative habits of events in verbal language, gestures, traffic signs, pictures, and so on; on the other hand, he claims that there is a general semiotics, which simple postulates the concept of sign, thus permitting us to speak about superficially dissimilar things within a unified framework. The latter, he maintains, is not a science, but a philosophical activity, and this is in his view demonstrated by the very proliferation of different conceptions of what semiotics is. Indeed, it is a variety

of the philosophy of language, which has the particularity of going beyond the study of statements, to the underlying activity, and which does not limit itself to a single semiotic system, verbal language.

It is interesting that Eco should admit that the study of *specific* semiotic phenomena are sciences; but that is no doubt because some of these sciences existed well before modern semiotics was in the works. The study of verbal language, for instance, has long been known as philology or linguistics. In some cases, however, this conception would require the establishment of new disciplines: there is, for instance no well-accepted branch of knowledge involved with the study of gesture, which is still treated within anthropology or psychology, or under the absurd and misleading heading of "non-verbal communication". The semiotics of pictorial signs is even more in need of being established as an independent discipline, because art history has never been interested in pictures as such, and the findings of recent perceptual psychology have to be brought into contact with more systematic studies, similarly to the way in which post-Chomskyan linguistics has been related to psycholinguistics. The rudiments of a body of knowledge corresponding to a semiotics of pictures already exist, as we shall see; but it can hardly be considered a well-established discipline.

This part of Eco's thesis was actually formulated well before him by Luis Prieto's (1975a,b), who argued that disciplines such as anthropology, ethnology, sociology, psychology, literary history, art history, history of religion, archaeology, and so on, should more aptly be called the "semiotic sciences", rather than being distributed among the social sciences and the humanities, because what they have in common is that they are involved with meaning. Eco (1988: 351) himself points out that while the natural sciences are interpretations of the first degree, the semiotic sciences are interpretations of interpretations. The latter, undoubtedly, also applies to what archaeology does with artefacts left in some prehistoric burial; it may not apply to the radiocarbon dating of these artefacts, but it certainly applies to the interpretative frame in which the resulting dates are later inserted and given a meaning. More obviously, it applies to most things done in art history, though, once again, the study of artistic materials is only indirectly contained within this description, because of the chemical analyses being made on substances defined for an "artistic" purpose.

But Prieto allowed general semiotics to subsist and to remain a science, although at another level of generality. Although Prieto is not very clear about the nature of this general semiotic theory, his own work within the domain seems to imply the conviction that it should not only furnish the semiotic sciences with a coherent framework, before the specific disciplines can accomplish their task, but that it would also be called upon to compare the results of these disciplines, in order to determine how different resources for conveying signification may differ. Whether or not this common framework consists in the concept of sign, or if something different, or something additional, is needed, it seems strange to say that this framework is simply "postulated" by a philosophical movement, as Eco maintains. If so, all these disciplines would only be valid, given a particular philosophical framework, and for someone

not sharing this framework, all these particular domains of study would have nothing to contribute. In the end, then, specific semiotics would also be given over to the whim of philosophy.[9]

Curiously, Eco even claims that the fact of there being different semiotical points of view demonstrates that semiotics is a philosophical activity; but, at the very least, this would show that semiotics is a class of different philosophical and/or scientific activities. Actually, a much more natural conclusion would be that, just as sociology, psychology, archaeology, literary history, and so on, semiotics can be practised from the point of view of different philosophical conceptions. Thus, there may be a structuralist semiotics, a nominalist semiotics, a phenomenological semiotics, and so on – just as there may be, for instance, a processual and a post-processural archaeology, a positivist and a postmodernist art history, and so on.

The way to get out of the "philosophical soup shops", to adopt Peirce's phrase, is to bring semiotics itself out of them. All sciences have once separated themselves from philosophy – a process which of course (as we shall see) always leaves a residue in the tureen.[10]

Those who look upon semiotics as a method or a model undoubtedly themselves take up a position outside of semiotics. Eco's claims, however, are made from within semiotics itself. A more commonly voiced point of view among people closely involved with semiotics is that it is "an interdisciplinary perspective". I find it difficult to see the point of that description. Either it means that people representing a lot of other more well-established disciplines come together at semiotic congresses; but, if so, it does not describe any situation which is original to semiotics, and there is no reason for this state of facts having to determine the future of any discipline. Or it really means that semiotics itself is something "in-between" other disciplines. If so, that is not particularly new either: from social psychology to cognitive science, other disciplines have been born out of such an intermediate space. This also means that the phrase cannot describe the particularity of semiotics: there are a lot of other "interdisciplinary perspectives". So, at the very least, something needs to be added to this definition.

A more sophisticated version of this description is Paul Bouissac's (1998: 1999a, b) claim that semiotics is mainly involved with "meta-analysis", which "consists in reading through a large number of specialised scientific publications, selected among the published literature in one or several domains of inquiry, and of relating the partial results within a more encompassing model than the ones that are held by the various specialists concerned" (1999a: 4). This is indeed something which semioticians tend to do; but so do of course a lot of people working within cognitive science and a lot of other purportedly "interdisciplinary perspectives". We are still left with the question what the specificity of semiotics

9   Deely (2001:700ff), who seems to accept this division, points out however that there must be an interaction between the foundational discipline and its different specialities, but this makes nonsense of the division. Deely's terms, *theoretical* versus *applied semiotics* are therefore much better.

10   Another variety of this thesis could be to present semiotics as a "critique of ideology", which is a conception probably first formulated be Volocinov, and more famously repeated by Kristeva, but it is still found in Angenot 1985. This self-contradictory conception will not be further discussed here.

is. It cannot lie in that "more encompassing model", for we have seen that semiotics is more than a model, since it makes use of a lot of them. Of course, it may contain a class of more wide-ranging models. But in order to contain models, it must be something else: a science.

So what, then, is the central framework provided by a semiotic "meta-analysis"? Not simply the postulated concept of sign, as Eco suggests. I would be the first to agree with Bouissac (1998) that the notion of sign is insufficiently defined in semiotics. In fact, I have often argued that both the central traditions, the Peircean as well as the Saussurean, simply presuppose the essential components of the sign (cf. Sonesson 1989a; 1992a,b; 1996a: in lecture 2 below). Contrary to Bouissac, however, I think the concept of sign makes perfectly good sense, once it has been properly defined (which is precisely what I will try to do later in lecture 2). Itself a fruit of meta-analysis, my definition abundantly refers to ontogeny, as well as to phylogeny. However, this does not mean that the concept of sign is sufficient to define the domain of semiotics, which has to be much wider, at least because signs cannot be treated independently of a wider concept of meaning.

According to Saussure, semiotics (or semiology as he called it) was to study "the life of signs in society"; and our second mythical founding-father, Peirce, as well as his forerunner John Locke, conceived of semiotics as being the "doctrine of signs". Later in life, however, Peirce come to prefer the wider term "mediation" as a description of the subject matter of semiotics (cf. Parmentier 1985). And Saussure actually argued that in the semiotic sciences, there was no object to be studied except for the point of view which we adopt on other objects (see Sonesson 1989a,I.1.4.). More recently, Greimas has rejected the notion of sign, and his followers Floch (1986a) and Thürlemann (1982; 1990) have argued the case in the domain of pictorial semiotics. In a similar fashion, Eco (1976) himself, at the end of his tortuous critique of iconicity, substituted the notion of sign process for the traditional sign concept.

So there seems to be wide agreement within semiotics, although with somewhat different slants, that the sign (also termed the semiotic function) is not comprehensive enough to delimit the field of semiotics: rather, the domain of semiotics is meaning (or "mediation"), in some wider, yet to be specified sense. However, since everything, or almost everything, may be endowed with meaning, any object whatsoever (or almost) may enter into the domain of semiotics, but only in so far as it is studied from the point of view of its capacity for conveying meaning. Semiotics, I will contend, is not about what something means; it is about *how* it means.

Two ways of defining sciences: Semiotics vs. the History of Religion

So far, I have tried to characterise complex notions such as method, model, movements, and so on, in very simple terms, sufficient to rule out the possibility of semiotics being one of those things. Now we face the even more daunting task of trying to determine what a science is. As a first approximation, one may want to say that a science is a particularly orderly and systematic fashion for describing and analysing or, more generally, interpreting a certain part of reality, using different methods and models. At this

point we may want to introduce a division between natural sciences, on the one hand, and social and human (or, better, semiotic) sciences, on the other, which, following a traditional hermeneutical conception echoed by Eco (1988: 351), separates the interpretation of facts from the interpretation of interpretations. Normally, it is added that the first kind of knowledge involves phenomena for which laws may be formulated, while the second kind only refer to unique occurrences; and that while the second type may be understood, the first can only be explained. As we will see, this is largely a pre-semiotic conception.

But there is something seriously wrong with this analysis, even at its earliest stage. Not all sciences appear to have their own reserved piece of reality to study. It seems to me that sciences may be defined either as being preoccupied with *a particular domain of reality,* or as applying *a particular point of view* to the whole of reality (which is really one and the same). Thus, French studies are involved with French language and literature, linguistics with all languages (or what is common to all languages); similarly, the history of religions describes a very particular domain of reality, religion, as it evolves through history (and pre-history). Even within the natural sciences, there are some sciences that have their particular domains, such as geography, astronomy, and meteorology. This seems to be even more obviously true of such applied sciences as medicine and dentistry.

But there is no semiotic domain, just as there is no psychological or sociological one: rather, everything may be studied from the point of view of its semiotic, psychological, or sociological properties. We

find the same thing in the natural sciences: chemistry and physics often appear to be different points of view taken on the very same matter. This is not the whole truth: in fact semiotics, psychology and sociology only apply their points of view to the human world, or at least to the world of living beings (in most cases, to animals, not to plants). So the point-of-view approach is supplemented by a domain-approach. The domain of chemistry and physics is much wider: its goes well beyond the human world. But both apply the same point of view to the human world and what lies behind it, which is impossible for semiotics, as well as for psychology and sociology. Contrary to chemistry and physics, biology is not just another point of view, but it is also domain-specific: it only involves living creatures. This may explain that there is now such a speciality as biosemiotics but not (at least I hope so) chemical semiotics.

It is impossible to establish a consensus among all semioticians on what semiotics is all about; and many semioticians will not even care to define their discipline. However, if we attend less to definitions than to real research practice, and if we leave out those would-be semioticians who simply do not seem to be doing anything very new (those who merely go on doing art history, literary history, philosophy, logic, or whatever), it seems possible to isolate the smallest common denominators of the discipline.

In the following, then, semiotics will be taken to be a science, the point of view of which may be applied to any phenomenon produced by the human race or, more widely, by living beings. This point of view consists, in Saussurean terms, in an investigation of the point of view itself, which is

equivalent, in Peircean terms, to the study of mediation. In other words, semiotics is concerned with the different forms and conformations given to the means through which humankind believe itself to have access to "the world". This is at least the way I have formulated the task of semiotics in my earlier work. For many reasons (which will be discussed more fully in the second lecture), it now seems impossible to limit semiotics only to the way the human world is endowed with meaning. Even when discussing pictures, which are peculiar to human beings, we can only understand their specificity in contrast to meanings handled by other animals. It will therefore be better to avoid any kind of belief-predicates in the characterisation of semiotics. Thus, semiotics should here be said to be concerned with the different forms and conformations given to the means through which living beings are observed, through their interactions with it, to have access to "the world".

The very term "point of view" is of course a visual metaphor. Yet the point, which is a standpoint, matters more than the sense modality. For, in studying these phenomena, semiotics should occupy the standpoint of humankind itself (and of its different fractions). Indeed, as Saussure argues, semiotic objects exist merely as those points of view that are adopted on other, "material" objects, which is why these points of view cannot be altered without the result being the disappearance of the semiotic objects as such. Analogously, is has been argued that we should have to adapt the point of view of the bat, let alone the tick, but it is not clear that this can be done in the same sense.

Taking the point of view of the users, and trying the explain their particular use, we cannot, like the philosopher Nelson Goodman (1968), reject the folk notion of picture because of its incoherence, but must discover its peculiar systematicity. But it does not follow, as Prieto (1975a) would claim, that we must restrict our study to the knowledge shared by all users of the system, for it is necessary to descend at least one level of analysis below the ultimate level of which the user is aware, in order to take account of the presuppositions underlying the use of the system. Semiotics must go beyond the standpoint of the user, to explain the workings of such operative, albeit tacit, knowledge that underlies the behaviour constitutive of any system of signification (cf. Sonesson 1989a,I.1.4).

Moreover, semiotics is devoted to these phenomena considered in their *qualitative* aspects rather than the *quantitative* ones, and it is geared to *rules and regularities,* instead of unique objects. This is to say that, pictorial semiotics, like all semiotic sciences, including linguistics, is a *nomothetic* science, a science which is concerned with generalities, not an *idiographic* science, comparable to art history and most other traditional human sciences, which take as their object an array of singular phenomena, the common nature and connectedness of which they take for granted.[11] I would like to insist on this combination here, since it overrides the traditional divide between the humanities and other sciences, postulated by the hermeneutical tradition from Dilthey and Weber to Habermas and Apel: even a traditional semiotical

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11   This is not to say that semiotic results must be formulated in terms of Hempel's covering law (as has been claimed by some exponents of "New Archaeology"): we are referring to the distinction between nomothetic and idiographic descriptions in the more general sense of Rickert and Windelbrand.

discipline such as linguistics, including the study of any particular language, involves the establishment of laws and regularities, not individual facts. Just like linguistics, but contrary to the natural sciences and to some varieties of the social sciences, all other semiotic sciences are concerned with qualities, rather than quantities – that is, they are concerned with categories more than numbers. Thus, semiotics shares with the social and natural sciences the character of being a law-seeking, or nomothetic, rather than an idiographic, science, while retaining the emphasis on categories, to the detriment of amounts, which is peculiar to the human sciences. Being nomothetic and qualitative, pictorial semiotics has as its principal theme a category that may be termed pictorality, or picturehood – which is not, as we shall see, simply the same thing as iconicity.

The social institution of science: Semiotics vs. Archaeology

This is as far as I have taken the argument in earlier articles. But there is certainly something wrong with this reasoning. When he suggested the creation of "semiology", Saussure claimed that its place among the sciences was prepared beforehand. Ironically, a century later, semiotics still does not exist as an independent discipline, apart from a few universities such as Lund, Tartu and Bologna. It certainly has more of an existence as collaborative networks between institutes and countries in different parts of the world, as partial definitions of research positions, and of course in the form of numerous associations, congresses, reviews, and books. But, clearly, something tells us that the place of semiotics was not as well-prepared as Saussure

imagined.

In contrast, archaeology is today a well-established science, represented, as a matter of course, at most universities, and occupying a pride of place among those endeavours founded by state, regional, and even international, institutions.[12] That is no doubt as is should be, for archaeology, in its different avatars, has contributed a great amount of knowledge about human culture and behaviour through the ages. And yet, at least with the aid of the simple epistemological model we have used so far, it is difficult to say what archaeology is all about. If there is some particular archaeological domain of study, it is hard to discern it; and if there is a peculiar archaeological point of view, it is not easy to define.

This is hardly surprising: after all, archaeology emerged rather recently, not, as most disciplines, out of philosophy, but from what, on first sight, may seem an unholy alliance of travellers and adventurers (often with diplomatic passports), on one hand, and of museologists and other specialists in classification, on the other (cf. Bahn ed. 1996; Trigger 1989). According to a common suggestion, archaeology is about "prehistory", which is then characterised as the period before the advent of writing (cf. Fagan 1998:4f). If so, is this a domain of study, or a particular point of view? It would be the former, if it meant that archaeology was dedicated to the de-

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12   As will be obvious here, if not before, the present discussion relies heavily on a contrast between archaeology and semiotics, which I developed in a lecture, which has not been published, that formed part of a colloquium on semiotics and archaeology, organised at the Swedish Institute in Istanbul in December 2 to 10, 2000. The reflections of archaeology here simply serve as an example, but they will be more directly relevant to our discussion in lecture two.

scription of a world in which writing did not exist; if would be the second, if it meant that archaeology involves the description of the world as it appears when we only have recourse to knowledge not transmitted through writing. The latter description undoubtedly seems most promising from a semiotic point of view: it would imply that archaeology only describes the world as it can be recovered by means of information conveyed by a particular kind of semiotic vehicle.

Fagan implicitly appears to opt for the latter alternative: he says archaeology is concerned with periods in which most people are not literate, so that much new knowledge may be gained from excavation. Moreover, he proceeds to oppose "text-aided archaeology" to "prehistoric archaeology".[13] However, it seems that a lot of archaeology would then turn out to be of the hybrid kind: in fact, "text-aided archaeology" would not only include the study of, for instance, the castles erected during the Middle Ages, but also, within the domain of "industrial archaeology", of near-contemporary buildings (cf. Renfrew & Bahn 1991).[14] In the second place, the very effect of archaeological work may then be to make some phenomenon cease being an object of study for archaeology and being transformed into a subject matter of some other branch of learning, such as history. Thus, Mayan studies would suddenly stop being archaeological, once it was discov-

ered that the Ancient Maya had true writing. Perhaps we could live with this later consequence. But there is a third objection, which may turn out to be more serious: it is not obvious that there is such a clear-cut difference between true writing systems and different kind of "pre-writing" that is allows for the distribution of the past into two or more domains of study (cf. Bouissac 1997: Rudgley 1998).

Fagan (1998: 4f) also offers a second criterion: archaeology, as opposed to history, "is, most of the time, entirely anonymous". Perhaps it is some similar idea that explains that Renfrew & Bahn (2000: 11) describe archaeology as '"the past tense of cultural anthropology'" (their quotation marks), not, for instance, of history. If, so, like Fagan, they are referring to a rather antiquated (but still dominant) conception of history, pre-dating the preoccupation, initiated by the *Annales* school, with enduring structures and long-time developments. Once again, this conception seems to have the effect of allowing archaeology itself to transform something into the subject matter of another science. To pick the same example, as long as everybody accepted the opinion of Sir Eric Thompson, according to which Mayan writing was only concerned with astronomical events, Mayan studies were part of archaeology, but now that we know that the inscriptions on many stelae concern highly individual "lords" of different Mayan cities, as well as the wars the waged on each others, the subject would cease being archaeological. Quite apart from this embarrassing situation, not only do recent, "post-processural" thinkers such as Hodder (1991) argue that archaeology should be more concerned with individuals, but Renfrew & Bahn (2000:9f) claim to

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13   From our point of view, this prompts the question: should we also add a "picture-aided archaeology"? And perhaps even further hybrids such as a "trace-aided archaeology"?

14   It has been argued that, although introductory text books give a different impression, most archaeology is really involved with historical times, that is, it is "historical archaeology" (Andrén 1997: 12f).

discover some convergence with classical "processural" archaeology on this point.

Let us suppose, just for a moment, that what Fagan really wants to say, is that archaeology is some particular method, which can be used when the more direct method of simply "reading the text" is not available: that is, a way of recovering old artefacts, usually by means of excavation. As a complete characterisation of archaeology this will of course not do. Digging is simply the first (or perhaps some middle part) of the endeavour called archaeology. It involves a lot of other methods, for reconstruction as well as analysis, from carbon dating to experimental archaeology. Yet it seems to me that it is the only operation that really singles out archaeology. Without excavation archaeology is not archaeology. As an enterprise, archaeology is not defined by any particular domain, nor any point of view. It is defined by a method, which is not even a method of analysing, but of acquiring the artefacts that it turns into its object of study.

For the moment, it does not matter whether I might convince any archaeologist about the correctness of my observations. But the preceding discussion shows clearly that something being a science is much more a social than an epistemological fact. Saussure' idea of there being some kind of system of the sciences within which the position of semiotics is already prepared now seems rather ingenuous, and so does my own division of the sciences into those based on divisions into domains and those adopting a particular point of view.

I still think it would be useful for semiotics to be recognised as a science. It would then gain some of the coherence and the focus it still seems to be lacking.

In some respects, however, I might have been much more on the right track in an earlier publication (Sonesson 1989a,I.1.), where I suggested that semiotics could perhaps best be viewed as a series of entangled strains of problem areas making up a continuous discussion extending through the centuries, and that is was only by taking a retrospective view of (some restricted part of) this mesh, that semiotics could be defined *a posteriori*, for instance as I did in earlier paragraphs. From an epistemological point of view, nothing would change. This research tradition would still be characterised by its peculiar point of view. And it would not be equivalent to a "doctrine of signs". It would be much more like a discussion: a network of problems branching out ever further through the centuries. In the following, when I talk about semiotics as a science, it should be understood in this sense. Indeed, I would like to claim that a science is simply a research tradition, in the above-defined sense, which has been institutionalised within society.

Meta-analyses in our time: Semiotics and Cognitive Science

To say that something becomes a science because of social reasons is not to suggest that those reasons are necessarily superficial, the result of power games and nepotism. In the case of semiotics, it may simply be the case that semiotics has so far failed to demonstrate it usefulness to wider groups within society. However, society as such is certainly also at stake: for some reason, the fortune of semiotics has been very different in Latin, and in particular Latin American, countries, than in the Anglo-Saxon, and more generally

Germanic, world. People in the latter part of the world would no doubt tend to think that this is so because Latin culture is more susceptible to intellectual fads. There may be some truth in this, if semiotics is identified with intellectual fashion statements such as structuralism, post-structuralism, and post-modernism. But this is a very limited, and uninteresting, way of looking at semiotics.

It might be useful here to contrast semiotics with another brand of "meta-analysis" which has met with more luck in the contemporary world, at least in the sphere under Anglo-Saxon influence: cognitive science. Like semiotics, cognitive science is often conceived as an interdisciplinary perspective that sometimes (no doubt more often than semiotics) has gained the position of an independent discipline. Curiously, it might be argued that cognitive science and semiotics cover more or less the same domain of knowledge – or rather, to apply the observations made above, take a very similar point of view of the world. This in itself is controversial, since semiotics and cognitive science offer very different characterisations of their domain (or, strictly speaking, the point of view taken on the domain). In some sense, however, both are concerned with the way in which the world described by the natural sciences appears to humans beings and perhaps also to other animals and some robots. Cognitive science puts the emphasis on the place of the appearance of this world, the mental domain (although some of its exponents would not even recognise the mind as such, but would rather talk about the brain and/or the computer), and on its characteristic operation, cognition; and semiotics insists on the transformations that the physical world suffers by being endowed with meaning. Indeed, in an earlier phase, cognitive science seemed more susceptible of being described by a simple model: the mind as computer. At present, however, even cognitive science has several models, one of which could be described as involving the mind as brain.

The disciplinary history of these two approaches has been very different. Cognitive science is often described as the result of joining together the knowledge base of rather disparate empirical disciplines such as linguistics, cognitive psychology, philosophy, biology, and computer science. Thus, instead of one research tradition connected through the ages, cognitive science represents a very recent intermingling of several research-traditions having developed separately until a few decades ago. Semiotics has, in a more classical way, developed out of the amorphous mass of philosophy, and still has some problems encountering its empirical basis. It might be suggested that the basic concept of semiotics is the sign, whereas that of cognitive science is representation – even though there is a long tradition in semiotics of rejecting the sign concept, and recent cognitive science has marked its distances to the notion of representation.[15] From the point of view of methods, semiotics is generally speaking stuck between the analysis of single "texts" and theory construction, whereas cognitive science is closer to relying on experimental methods (including, of course, computer simulation). These differences partly may explain why semiotics and cognitive science rarely are on speaking terms.

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15   If this seems a paradoxical statement, I must refer the reader to Lecture 2 for its elucidation.

On the other hand, there have recently been some encouraging developments within cognitive science which, no doubt with some exaggeration, may be qualified as a "semiotic turn": an interest in meaning as such, in particular as it has developed, ontogenetically and, in particular, phylogenetically, in the human species and, to some extent, in other animals and animal-like machines. Terrence Deacon (1997) is a researcher in neuroscience whose work has been particularly acclaimed within cognitive science. Yet he has chosen to express some of his main arguments in a terminology taken over from Peirce, who is perhaps the principal cultural hero of semiotics.[16] Not only Deacon, both other scholars interested in the specificity of human nature now put their emphasis on the concept of sign (which they normally term "symbol", using this word is a sense in which we will not employ it here). This is true, in a very general sense, of Donald's (1991) stages of episodic, mimetic, mythic and theoretical culture. It seems to apply even more to Tomasello (1999), less, in the end, because of his epigraphs taken from classical semioticians such as Peirce and Mead as well as Bakhtin and Vygotsky, than because of the general thrust of his analysis, which consists in separating true instances of interpreting actions as intentional from those which may merely appear to be such. Building on the aforementioned works, Jordan Zlatev (2002, 2003) is explicitly concerned with the conditions for the emergence of higher levels of meaning involving "mimesis" and language, from more basic ones, characteristic of all biological systems (life forms), such as "cues" and "associations.

In the end, then, what we do need, is some kind of meta-analysis: as Bouissac (1999a: 4) put is so well, we need a procedure which "consists in reading through a large number of specialised scientific publications, selected among the published literature in one or several domains of inquiry, and of relating the partial results within a more encompassing model than the ones that are held by the various specialists concerned". No doubt cognitive science, by definition, has been better at this than semiotics, because it is characterized by the confluence of various earlier research traditions, whereas semiotics has too long been hampered by the autonomy postulate, taken over from Sassurean and Chomskyan linguistics. For my part, I have always sided with cognitive science in this respect, even before it was invented. What cognitive science needs, however, is to take into account even more research traditions, one of which is no doubt semiotics. However, meta-analysis taking a semiotic as well as a cognitive point of view might perhaps better be called semiotics. In the end, there may be no meaning without cognition, and no cognition without meaning, at least given the wide definition of cognition characteristic of cognitive science.[17] It

16   Without trying in any way to diminish Deacon's contribution – in fact, I find him very convincing whenever he is not having recourse to semiotic terminology -, I have earlier expressed serious misgivings about his way of using Peircean terms, because this serves to obscure both the central issues of semiotics, and those introduced by Deacon. Cf. now Lecture 2 and 3.

17   According to the "language of thought" hypothesis (first formulated by Fodor) even categorical perception and other elementary perceptual operations are based on cognition. Contemporary representatives of cognitive sciences such as Lakoff and Johnson (on which more will be said in later lectures) would seem to think that also thinking in a more traditional science may be reduced to very simply operations, in which case "cognitive science" becomes a misnomer. "Cognition" appears to have changed meaning, standing simply

might perhaps be said that semiotics differs from cognitive science simply by putting the emphasis on meaning rather than cognition.

Specialities such as pictorial semiotics can of course not be reduced to meta-analysis, because, in a fundamental sense, they have to start from zero (even though pictorial semiotics cannot do without perceptual psychology). So much may be accorded to Eco (and Prieto). But even though general semiotics must feature meta-analysis in an essential way, it should not be viewed as simply a tradition within philosophy. As Peirce said, we have to get out of the philosophical soup shops. But some philosophical residue will no doubt be left in the tureen.

From Phenomenology to Ecological semiotics

Just like (French) structuralism was semiotics with a particular epistemological slant, cognitive science so far often has been a study of cognition equipped with a particular epistemology. Basically, French structuralism was characterised by a positivistic conception of the world and of scientific method, taken over less from Saussure than coming out the subsequent development of linguistics prior to the advent of Chomsky and forming the background of distributionalism and behaviourism. As all French intellectual fads at the time, Structuralism (in this sense) obviously also had to take Freud and Marx into account, which could only be done by tempering the positivist conception, or rather, concomitantly rendering it rigid and inoperant. Something which is less well-known, however, is that Structuralism, appearing on the French in-

for that which may be simulated on a computer.

tellectual scene, also had to define itself in relation to (Husserlean) phenomenology, at least in its French, subjectivist, variety, known as Existentialism. At least the early work of such well-known French structuralists as Greimas, Barthes, and Foucault contains explicit phenomenological references. None of them really reflected on the epistemological incompatibility of phenomenology and positivism (though at least Foucault clearly marked his distances later). Some later semioticians, such as Jacques Fontanille and Jean Peititot, have later returned to the phenomenological tradition. At the same time, however, semiotics generally has largely grown out of the structuralist strait-jacket (although I feel rather lonely having tried to take into account the rich intellectual yield of structuralism, as well as showing what was wrong with this epistemological stance).

From this point of view, cognitive science still seems to remain at the stage of structuralist semiotics. It is a meta-analysis determined by the computer-metaphor, both as a way of constructing models, and (probably less) as a method of analysis known as simulation. No doubt, while early cognitive science was entirely dependent on the idea of the mind as a computer, functioning on the model of extant computer programs, recent decades has seen the advent of computer programs, called "neural networks", constructed so as to function as models of the mind, identified with the brain, or at least as models of some aspects of brain functioning. This is perhaps the sense in which Pinker (1997; 2002) suggests that the idea of the mind as computation is wider than the "computer metaphor". At least for some thinkers within this tradition, this has prompted the question of how

the mind relates to the brain, or, in other terms, the problem of explaining the "personal level" from the "subpersonal level". Some neurologists within the cognitive science framework have seen the necessity of accounting for "qualia", i.e. the mind as experienced by a subject (Edelman & Tonini 2000), and philosophers operating within the same frames have tried to map commonsense psychology to brain functioning, often in terms of computer models (Bermúdez 2005). This should really bring cognitive science closer to phenomenology, even though such as rapprochement has only been suggested in rare instances so far (Gallagher 2005). The lack of input from phenomenology and other philosophical traditions current during the turn of the 19th century is clearly apparent in the discussion between "simulation theory" and "theory theory" concerning the relation between Ego and Alter.[18]

The task of phenomenology, as Husserl saw it, was to explain the possibility of human beings having knowledge of the world; as a philosophical endeavour, phenomenology is about the way the world of our experience is "constituted". As a contrast, psychology is not about the world, but about the subject experiencing the world. However, every finding in phenomenological philosophy, Husserl claims, has a parallel in phenomenological psychology, which thus could be considered a tradition within psychological science (cf. Husserl 1962; Gurwitsch 1974). If consciousness is a relation connecting the subject and the world, then phenomenology is concerned with the objective pole and psychology is

about the subjective one. It is often forgotten that Husserl not only inspired but also himself was inspired by the Gestalt psychologists. Close followers of Husserl such as, most notably, Gurwitsch (1957, 1966), were as much involved with phenomenological psychology as with philosophy and discussed the findings not only of the psychology of perception but of contemporary contributors to neurobiology such as Gelb and Goldstein. Also the early Merleau–Ponty was, in this respect, an exponent of phenomenological psychology.

Being a neurologist, Edelman (1992) clearly does not discover the body from the horizon of consciousness, like a phenomenologist, but quite the opposite, he implies that the mind cannot be divorced from the body. In a sense, this is hardly controversial: unlike those hypothetical angels postulated by Max Scheler, human beings can only boast a mind as long as they have a body. But, if this is true in the order of existence, it is not necessarily so from the point of view of investigation. After all, Brentano (1885) did not use a scalpel, much less fMRI, to discover the property of intentionality (in the sense of directedness), which Edelman recognises as an irreducible characteristic of consciousness; nor did James (1890) find any of those "Jamesian properties" of consciousness repeatedly mentioned by Edelman in such a way. Indeed, far from being "a deliberately non-scientific set of reflections on consciousness and existence" (Edelman 1992: 159), phenomenology started out from the fact of intentionality and attempted to probe ever deeper into its ramifications, in order to rediscover and amplify those very Jamesian properties of consciousness mentioned by Edelman. Husserl and Gurwitsch may have

18   For a discussion of this tradition, which is useful even for those who are not able to agree with the Heideggeran conclusions (curious in this author), see Gurwitsch 1979 (written in 1931).

been wrong to think of phenomenology as a discipline completely separate from biology and psychology, but the relative disconnection of phenomenological reflections, like those of Brentano and James, from biological knowledge has no doubt borne rich intellectual fruit. If "a biologically based theory of mind" can in some respects "invigorate" phenomenology, the opposite is certainly just as true.

It is, no doubt, phenomenology on the sense of phenomenological psychology which is of relevance here: it is in this sense that I think that, together with semiotics, phenomenology should participate in the confluence of research traditions making up cognitive science. Personally, I also have some sympathy for phenomenology as a philosophical stance (though not in the sense of transcendental idealism), but this is less essential in the present context.

Phenomenology, like semiotics, takes as its point of departure the way things make sense to us, that is, how they mean. In this, very broad sense, phenomenology accomplishes a semiotical reduction: things are considered only from the point of view of their having meaning to us (which might be people of a particular culture or subgroup, or humankind in general). From a phenomenological point of view, there is, in a sense, no way of overcoming the divide between the mind and the world formulated by Descartes, for Descartes did not invent it: it is intrinsic to that phenomenon which, in Descartes' own words, is the most widely distributed in the world: common sense.

Common sense is not notorious for being right: but if we ask ourselves how the body (and the rest of the world) makes sense to us, then common sense is our very

subject matter. Even so, common sense gives rise to an apparent contradiction: my body is necessarily experienced through my consciousness, but in my consciousness it is experienced as being outside of it.[19] All post-Cartesian mediations, from those of Husserl to those of Merleau-Ponty, have been concerned to account for this paradox. To do so, it is necessary to accomplish a painstaking analysis (of which there can by no better example than the posthumous papers of Husserl himself, together with the – also largely posthumous – works of Peirce) of all those structures of the mind that are normally at the margin of consciousness. Since this is a question of discovering the way in which that which has a meaning means, there is no other way of achieving it, even if it is an extremely fallible enterprise.

In this sense, as I have argued elsewhere (Sonesson 1989: 27ff), all human and social sciences which aspire to discover regularities, such as linguistics and other semiotic sciences, necessarily start out from phenomenology – and we should be happy if those phenomenological investigations sometime manage to be as meticulous as those of Husserl and Gurwitsch.

This common sense world from which all analysis of meaning must start out was characterised by Husserl as the Lifeworld, paraphrased by the later phenomenologist Alfred Schütz as the world taken for granted. The Lifeworld, in this sense, must comprise both what, in recent cognitive science, is known as "naive physics" (what we, as members of the human

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19   Strictly speaking, this is not the problem of our own body, nor of the other, but the more general one of the external world, as pointed out by Gurwitsch (1979: 26f): but it is quite sufficient for us to note that it also applies to the body.
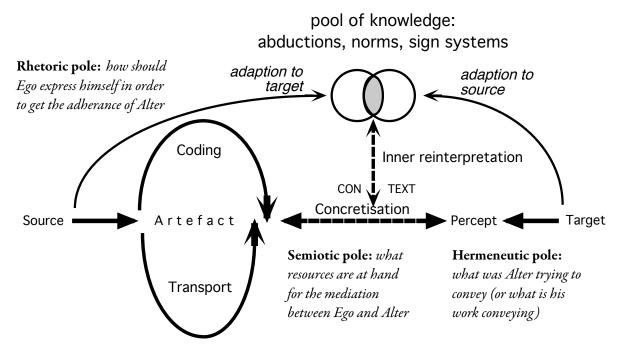
pool of knowledge:
abductions, norms, sign systems

Rhetoric pole: *how should Ego express himself in order to get the adherance of Alter*

adaption to target

adaption to source

Coding

Inner reinterpretation

CON   TEXT
Concretisation

Source → A r t e f a c t ← → Percept ← Target

Transport

Semiotic pole: *what resources are at hand for the mediation between Ego and Alter*

Hermeneutic pole: *what was Alter trying to convey (or what is his work conveying)*

Fig. 4. The communication model, as revised in Sonesson 1999b

race, mpt as students of the natural sciences, believe about the physical world) and "common sense psychology" (what we believe about ourselves other persons). The psychologist James Gibson, who sometimes repeated Husserl's very words in describing what he called "ecological psychology" (what we must take for granted about the environment in order to be able to perceive the world as we do), is more obviously concerned with the naive physics parts. Taking my clue from Gibson, I have called this kind of study, prefigured by both Husserl and Gibson, *ecological semiotics* (cf. Sonesson 1993a, 1994a, 1996a, 1997a, 2999a). However, as semioticians we still feel that something is lacking here: the world of signs itself. In the terms of Karl Popper (prefigured by many other authors), our experience is not only made up of subjects with consciousness (World 2) and the world of physics (World 1), but also of organism-independent structures such as languages and other semiotic resources (World 3). All access to these worlds is of course only possible from within World 2. And yet World 3 has its own existence, just as well as World 1.[20]

The three sciences of communication: rhetoric, hermeneutics, semiotics

Like semiotics, rhetoric and hermeneutics may be viewed as age-old research traditions in search of scientific status. The case of rhetoric is certainly somewhat different from the others: it was a kind of *epistemé* (that is a science, not simply an art, a *techné*), already in Antiquity, and it remained so through the Middle Ages, when it was part of the Trivium, and beyond that at least until the Enlightenment, when Vico, for instance, was a professor of rhetoric. More recently, is has again become a discipline occupying a position at the university, though, like in the Middle Ages, it tends to be reduced to a *techné*, in the Aristotelian

[20]   The nature and origin of organism-independent artifacts (which are of course independent of both matter and mind, both only in a limited sense) will be further discussed in Lectre 2.

sense, that is, merely a set of practical precepts which are taught to the students and not questioned, rather than a science transforming this "art" into explicit knowledge, as suggested by Aristotle. Only in the work of the two Belgian schools of new rhetoric, that of Perelman, and that of Groupe μ, which is semiotically informed, has rhetoric taken on some of the trappings of a science.[21]

As for hermeneutics, when it first emerged in Late Antiquity, and then again during the Middle Ages, it was certainly an art in the Aristotelian sense, featuring a series of guidelines for the interpretation of religious texts, to which later the canon of Antiquity was added. Hermeneutics in the Renaissance sense, on the other hand, remained a *techné*, but one which was alimented by historical and critical research, permitting the restitution of the true text. At least since Schleiermacher and Dilthey, however, hermeneutics rather seems to have been transformed into a philosophical tradition, particularly tainted by the Heideggerean conception of thinking, although it also has been given its own status within the social sciences, mainly thanks to the contribution of Habermas. Interestingly, within the recent hermeneutic tradition, hermeneutics and rhetoric have appeared as some kind of sister sciences (most explicitly perhaps in the work of Gadamer), though very little is generally said about the latter.[22]

I want to suggest that this sisterhood could more conveniently be expanded to as to comprehend also a third member, which is of course semiotics. The resulting trinity is not the one proposed by Popper (and even less that of Peirce): both hermeneutics and rhetoric are concerned with the Popperean World 2, that of the subjects, but semiotics is of course mainly concerned with World 3, that of organism-independent artefacts. Instead, rhetoric, hermeneutics, and semiotics occupy different positions in relation to the process of communication. They may be said to be different sciences of communication taking different points of view on the communication process. But in order to see this, we have to go beyond the model of communication propounded by the mathematical theory of information, which is too often taken for granted outside and inside of semiotics.

Even today all semiotic theory relies, more or less explicitly, on the communication model derived from the mathematical theory of information, which was designed to describe a few, by now rather old-fashioned, technological means of communication, telegraphy and radio, and in particular to devise remedies to the loss of information often occurring during transportation. Largely because of the influence of Jakobson (1960) and Eco (1976; 1977), this model has been used inside semiotics as a model of all communication, all signification, and of all kinds of semiosis.

This practice has produced at least two symmetrical, equally negative, consequences: by reducing all kinds of semiosis to the mass media kind, in particular to that employed by radio and telegraphy, we become unable to understand the peculiarity of more direct forms of communication;

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21   For the history of rhetoric, see, for instance, Conley 1990. More will be said about the two Belgian schools on new rhetoric in later lectures. An important theoretical contribution to rhetoric is of course also Ricœur (1975), although the author is more well-known form his phenomenological and hermeneutical inspirations.

22   An extensive overview of the hermeneutical tradition is found in Ferraris 2002.

and by treating all semiosis as being on a par, we deprive ourselves of the means to understand the intricacies added to direct communication by means of different varieties of technological mediation. Beyond this, we may even discover a third, even more serious consequence: by projecting the communication model onto each and every form for conveying meaning, we lose sight of that which is really common to all kinds of semiosis

I will here suggest a model of communication which takes the basic operation of communicating to be, not transference in space, or translation into another code, but the act of interpretation, which supposes an active contribution on the part of the receiver, as well as on that of the sender, the receiver being sometimes more, and sometimes less involved than the sender (See Fig. 4). Indeed, the first result of a process of communication is to produce a task of perception for the receiver, who has to have the means of accomplishing this task. We could start be separating the process of communication into three acts which do not have to take place at the same time and/or in the same space: the act of producing the artefact, the act of presenting into to the receiver, and the act of receiving it. The whole of this process supposes there to be some pool of knowledge held in common by the sender and the receiver, or rather, one pool of knowledge of the sender and one pool of knowledge of the receiver which, even in the most favourable case, can only partly overlap. If the message is sender-adapted, it is the task of the receiver to recover the part of the message that is not given in his pool of knowledge. This is a typically hermeneutic task. On the other hand, if the message is receiver-adapter, it is the task of the sender to recover the part of the message possibly being understood by the receiver. This is an elementary rhetorical operation. Of course, rhetoric is also about recovering such elements of the message that may possibly be not only understood but also convincing to the receiver, but conviction is based on understanding (in some sense). There could also be a corresponding hermeneutical operation, if hermeneutics is taken to include the discovery of the most favourable interpretation.[23]

More simply, looked at from this angle, rhetoric is concerned with the way of creating the message, so as to win the adherence of the other, and hermeneutics is involved with the task of recovering what the other wanted to say (or what a particular work really may be taken to mean). In between the position of Ego and Alter, semiotics has to elucidate what resources are at the disposal of both participants in the process of communication. If rhetoric, semiotics and hermeneutic are sister sciences, it makes sense, however, to ask semiotics to take care of the other sisters. A semiotically informed rhetoric would ask what means are at our disposal for gaining the adherence of the other. Similarly, a semiotically informed hermeneutics would ask what recourses there are for construing the meaning of a certain sender and/or a certain work.

Could there then also be something like a hermeneutically and/or rhetorically informed semiotics? I think not. As research traditions, hermeneutics and rheto-

23   The conception of communication presented here is very much indepted to the theories of the Prague and Tartu schools of semiotics, in particular as discussed in Sonesson 1999b. More will be said about this in later lectures.

ric has a lot to teach semioticians. But they cannot redefine semiotics in an essential sense, in the way in which semiotics redefines hermeneutics and rhetoric. This is because, as against traditional hermeneutics (at least what is sometimes called the subjectist tradition), semiotics observes that nobody can be understood but through the semiotic resources offered by a given society (including the very structures of sociality). In the same way, semiotics points out, against rhetoric as it is often practiced nowadays (though it would concord, in spirit at least, with the so much criticised rhetoric tradition of the 16th to the 19th century, which was restricted to the taxonomy of expressive devices, or *elocutio*) that nobody can express himself, except by means of the semiotic resources given in a particular society. This means that, not only is communication only possible as an interaction between sender and receiver, addresser and addressee, but that even this interaction cannot take place but through the intermediary of signs and other meanings. But these meanings are really part of the world going beyond both addresser and addressee, the World 3 of Popperian ontology: that which is only given through consciousness, but has an existence independent of consciousness.

Summary

The present section has been taken up by a discussion about the nature of semiotics in general, as related to other disciplines. We pointed out that such familiar characterisations of semiotics as being a method, a model, an interdisciplinary perspective, or a philosophical movement could not be sustained. Semiotics itself comprehends many models, methods, and philosophical perspectives, and it is just one of the many enterprises which may be seen as occupying the space between the traditional sciences. Rather, we suggested, semiotics must be considered to be a science in its own right, defined by a particular point of view, rather than a domain of reality. But after realising that a science is at least as much a social institution as an epistemological position, we finally decided that, at the time being, semiotics must be seen as a research tradition, containing many issues worthy of discussion as well as a few provisional solutions. As such it is in many ways comparable to cognitive science, although from the point of view of the sociology of sciences, cognitive science has had more success. Cognition in the wide sense of cognitive science appears to be co-extensive with meaning. A distinct advantage of cognitive science is that it is by definition a confluence of different research traditions, whereas semiotics has long been hampered by the autonomy postulate. On the other hand, cognitive science stills seems to be stuck in an epistemological impasse, just as semiotics was at the time of structuralism. If we look upon semiotics as a research tradition of meta-analysis putting the emphasis on meaning, while cognitive science insists on cognitive operations, semiotics may also be compared to rhetoric and hermeneutics, which look at different ends of the process of communication, whereas semiotics is concerned with the intermediary space. We may therefore learn a lot from hermeneutics and rhetoric, if we integrate them into a semiotical perspective, which insists on all expression and all interpretation of meaning only being able to take place by means of the semiotic resources offered in a particular society and situation.

1.3. System and History: Beyond Barthes and Eco in Pictorial semiotics

Pictorial semiotics involves, of course, the study of pictures as particular vehicles of signification. Pictorial semiotics, I submit, is that part of the science of signification that is particularly concerned to understand the nature and specificity of such meanings (or vehicles of meaning) that are colloquially identified by the term "picture". In other words, pictorial semiotics is the science of depiction, as a peculiar mode of information and communication. Thus, the purview of such a speciality must involve, at the very least, a demonstration of the semiotic character of pictures, as well as a study of the peculiarities which differentiate pictorial meanings from other kinds of signification, and a assessment of the ways (from some or other point of view) in which pictorial meanings are apt to differ from each other while still remaining pictorial in kind. In differentiating pictorial meaning form other meanings, we should in fact be particularly interested in knowing how they are distinguished from other kinds of visual signification, such as sculpture, architecture, gesture, and even writing; or how they differ from other iconic signs, that its, from other signs motivated by similarity or identity.

The domain of pictorial semiotics

In the work of the pioneers, pictorial semiotics, even when it concerned itself with advertisement pictures, tended to make its own the traditional conception of art history and literary history alike, according to which the object to be studied was the individual, purportedly unique, work of art. Many scholars have merely searched for a practical way of mapping an individual picture onto a verbal description, while retaining a minimum of confidence in the objectivity of the procedure. Although some scholars developed models of analysis which embodied hypotheses about wide-ranging regularities found in pictorial semiosis, there has been little awareness, until recently, that pictorial semiotics, if it is to be a part of general semiotics, must be concerned with all kinds of pictures, and formulate principles applicable to all empirically occurring picture kinds, and even to all objects potentially recognisable as pictures. Such a conception, although extended to the wider domain of visual semiosis, is implied (but not explicitly stated) in Saint-Martin's (1987) recent work. Arguments to the effect that pictorial semiotics should be a general science of depiction, or of visual images, are only presented in the recent books by Groupe μ (1992: 11ff), Sonesson (1989a:9ff), and O'Toole (1994:169ff).

To elucidate the meaning of pictorial semiosis must mean, among other things, to find out in what respects pictures are like other signs, and how they differ from them, most notably perhaps how they are differentiated from other signs of such sign categories to which they undoubtedly belong: the category of visual signs, and the category of iconic signs. Such as task, and even the very specificity of pictorial semiotics, obviously dissolves itself if we accept the idea of the Greimas school, according to which all meaning is of a kind, or is identical in nature as far at it is pertinent to

semiotic theory (cf. Floch 1986b).[24]

Curiously, Floch (1984: 11, 1986a: 12f) who defends this theory, also argues, on the other extreme, that semiotics should not concern itself with middle-range categories like "photography" and "painting",

described as "socio-cultural", but should instead attend to the minute details of an individual picture. Groupe μ (1992:12) follows suit in denying the pertinence of these same categories, which the group conceives of as being "sociological" or "institutionalised". Whatever the sociological status of photography and painting, how-

24   Thürlemann 1990, on the other hand, conceives of pictorial semiotics merely as an ancillary of art history.

ever, it seems to me that they are also, and primarily, particular varieties of the picture sign, embodying a particular principle of pertinence, which serves to rely expression and content, and as such they should be of interest to semiotic theory.

A division of the pictorial signs founded on everyday language may thus result in four categories of picture categories (Sonesson 1992a*): construction categories,* defined by what is relevant in the expression in relation to what is relevant in the content, which, among others, differentiates the photograph from the painting; *function categories,* that are divided according to the social effects anticipated, for example, the publicity picture which has as its goal to sell products, the satirical picture which serves to ridicule somebody, the pornographic picture, which is supposed to produce sexual stimulation; and the *categories of circulation* characterised by the channels through which the pictures circulate in a society, which makes the bill-board into something different from the newspaper picture or the postcard into something different from poster; and, finally, *organisation categories*, which depend on the conformation of the configuration occupying the expression plane of the picture.

This is of course a primary source of visual rhetoric: by means of the mixture of different construction categories, function categories, or circulation categories, a rupture of our expectations is produced (Sonesson 1993;1994a; 1996a). Among well-known blends of construction categories may be counted the Cubist collages, whose materials are heterogeneous. A mixture of function categories is present in the well-known Benetton publicity, in which a news picture has been curiously blended into a publicity picture. A more abundant source of the rupture of the norm is, nevertheless, the expectations, which we entertain that there will be certain *correlations* between categories of construction, categories of function and categories of circulation (or perhaps also categories of organisation). A great part of Modernism (as well as Postmodernism) has consisted in breaking, in ever new forms, with the prototype of the art work that was current in the XIX century: an oil painting (construction category) with aesthetic function (function category) that circulates through galleries, museums and exhibition halls (circulation category). In this sense Modernism has been a gigantic rhetorical project, as Postmodernism was later to be.

However, even the very history of mass media and sign systems serves to undo the anticipated connections between pictorial kinds. This is valid also on a more general level: xylography already implies that the pictorial sign stops being absolutely bound to manual distribution; but only the computerised picture consummates the rupture with a construction realised by hand.

Pictorial semiotics, then, could well be conceived as that particular branch of semiotics which is concerned to determined in which way the picture sign is similar and different from other signs and meanings, in particular as far as its relationship to other iconic and/or visual meanings are concerned; and which is also called upon to analyse the systematic ways in which signs which are pictures may yet differ form each other, thus, for instance, as to construction, socially intended effects, channels of circulation, and configurational kinds.

From Panzani pasta to the theory of iconicity

Although pictures are mentioned, and compared to verbal language, already by such precursors of semiotics as Lessing and Degérando, and in spite of the fact that Saussure, and even more Peirce, refer to pictorial signs repeatedly, pictorial semiotics must be considered a recent discipline indeed: the Russian formalists have little to say about pictures, and the Prague school merely uses them to illustrate general principles of semiosis. Only with the advent of French structuralism did a body of knowledge particularly geared to the elucidation of general principles underlying the organisation of the picture sign start to emerge.

[25]The history of pictorial semiotics begins with two false starts, which are nevertheless immensely important, since everything that has happened since has emerged from the criticism of those two initial attempts: Barthes' article on Panzani publicity, and Eco's critique of iconicity.

First and foremost among the pioneers of pictorial semiotics must be mentioned Roland Barthes, whose article "La rhétorique de l'image", stands at the origin of two diverging developments within the semiotic field, the semiotics of publicity, represented by George Péninou and many others; and the semiotics of visual art, represented by, among others, Louis Marin, Hubert Damisch and Jean-Louis Schefer. In spite of the confusion to which Barthes testifies in his employment of linguistic terms, and although the usage to which he puts these terms is in itself incoherent, his

article marks a real breakthrough in pictorial semiotics. There could be some intrinsic reasons for this, for the article may well constitute the first attempt to employ a simple model permitting to fix the recurring elements of pictorial signification. Yet the importance of the work is mainly due to the influence it was to exercise on almost all later analyses, either directly, the Barthesian terms being applied as a matter of course, or by way of reaction, when the authors took pains to dissociate their approach from that of Barthes.

Not only did Barthes and his followers try to reduce all meaning to the linguistic kind, employing a model inspired in structuralist linguistics, but in so doing, they unfortunately misunderstood the import of most linguistic terms. What is confused in Barthes' work tends to become even more so in that of his followers, who, moreover, inherit his exclusive attention to the content side of the pictorial sign, or more exactly, to the extra-signic referent and its ideological implications in the real world, even to the point of ignoring the way in which the latter are modulated within the sign. The socio-critical strand of the Panzani analysis gave rise to several national traditions, differently integrated with other scholarly conceptions, which have seemed to be fairly immune to later developments in semiotics, such as, in the sixties and seventies, the work of Hermann Ehmer and others in Germany, that of Peter Larsen in Denmark, and that of Gert Z. Nordström in Sweden, as well as, to some extent, the more recent publications by Gunther Kress, David Hodge, and Theo van Leeuwen in Britain. The same errors of linguistic understanding are also found in Damisch's (1979) refutation of the linguis-

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25   What follows is only a historical overview. The theoretical problems raised by the different models will be discussed in later lectures. It is thus not necessary to understand all the concepts and terms invoked.

tic model, identified with semiotics *tout court*, which, moreover, testifies to a much more serious confusion in comparing the merely intuitive, pre-theoretical notion of the picture with the concept of language as reconstructed in linguistic theory (just as Metz did in the case of the notion of film; cf. Sonesson 1989a,I.1.2.).

Starting out from a few general observations, Barthes' pioneering article rapidly turns into a regular text analysis concerned with one particular photograph (Figure 5, defined both as to its means/ends category (publicity) and, somewhat more loosely, its channel division (magazine picture). The photograph under analysis shows samples of Panzani products, i.e. spaghetti, Italian tomato sauce, and grated cheese, together with a selection of vegetables presented in a string bag, which is held up by an invisible hand outside the picture. The brand name is to be read on the Panzani products, and there is also a short text below the depiction of the string bag. Barthes first comments on the importance of the linguistic part of the message, and then, in the main part of the essay, goes on to specify a series of "connotations" supposedly appearing partly in the verbal text and partly in the picture.

It is here (as well as in Barthes 1961) that Barthes proclaims his famous paradox, according to which the picture is a message deprived of a code. The term "image" in fact alternates in the same paragraph with the more particular term "photograph", as if this were the same thing, but later on the photograph is opposed in this respect to the drawing. Yet many followers of Barthes retain the wider interpretation, using it to defend the inanalysability, or ineffability, of paintings and other works of art.

Actually, neither Barthes, nor his followers makes any real attempt to analyse the picture: they are discoursing all the time on the referent, that is, on the depicted scene. Lindekens (1971) already recognised that a "rhetoric of the referent", not of the picture sign, was at stake in the Panzani article.

Another fundamental *parti pris* of the Panzani essay, which has left its imprint on pictorial semiotics, is the idea of no picture being able to convey information by itself or, alternatively, containing so much contradictory information that a verbal message is needed to fix (or "anchor") its meaning. No matter which interpretation we choose (and the latter one may have more support in the text), pictorial meaning is supposed to depend on linguistic meaning. Pictures certainly offer much less *linguistic* information than verbal texts, except in those cases in which the picture itself contains the reproduction of written messages, as is the case of the Panzani publicity; but it could be argued that the picture much better conveys another kind of information that resembles the one present in the perceptual world (cf. Sonesson 1989a: 114ff).

The second most influential figure in early pictorial semiotics was no doubt Umberto Eco, who defined two of the basis issues of the domain, and whose resolution of these issues was hardly contested until recently. Probably because only conventional signs, according to Saussure, were of interest to semiotics, Eco set out to show that pictures are as conventional as linguistic signs. In terms well-known within semiotics, Eco claimed that there were no iconic signs, that is, no signs motivated by similarity. Pursuing even further the analogy with linguistic signs, Eco

went on to suggest that pictures could be analysed into elementary signs, which, in turn, could be dissolved into features having no meaning of their own. Although Eco himself was to quality this latter idea ever more through the years, one or other version of his conception continues to be accepted by many scholars in the field. Eco himself thus ended up rejoining the argument of the philosopher Nelson Goodman (1968), who thought pictures were similar to verbal language in being conventional, but different from them in not being made up of smaller units.

During the late eighties and nineties, Eco's conception of the picture sign was heavily criticised by a number of scholars, notably by Paul Bouissac, Groupe μ, and the present author. My own argument, which relied both on evidence from perceptual psychology, and on a refutation of logical arguments, showed that, quite contrary to what had been claimed by Eco and Goodman, pictures were not fundamentally conventional, whereas they were indeed analysable into features, albeit of a very different kind from those found in linguistic signs. My conclusion was that there were both a *primary iconicity*, found mainly in pictures, in which it is the perception of similarity between the item serving as expression and the item serving as content which is one of the condition for the postulation of the sign character of the sign, and a *secondary iconicity,* in the case of which it is our knowledge about the sign character which first permits us to discover the similarity between the two items involved (Sonesson 1989a; 1994b; 1995a; 1997a; 1998b, c; 2000). Taking stock of this strain of criticism, Eco (1997) in his latest books seems to pass to the other extreme, embrac-

ing something similar to the conception of the early Barthes, according to which the expression and content of (at least some) iconic signs are "tautologous".

Less influential than Barthes and Eco, but certainly as important for the development of pictorial semiotics, René Lindekens in his two early books (1971; 1976) discusses questions pertaining to the basic structure of the pictorial sign (e.g., conventionality and double articulation), using photography as a privileged example. His theoretical baggage is complex: Hjelmslevian semiotics, of which he has a much more solid knowledge than Barthes, combined with an inkling of the Greimas school approach; phenomenology, which, however, affected him in the subjectivist reinterpretation of the existentialists; and the experimental psychology of perception, mainly derived from the Gestalt school. Yet, the different theoretical strands remain badly integrated, and much knowledge present in these perspectives is insufficiently exploited (cf. Sonesson 1989a)

In order to demonstrate the conventionality of pictures, and to show how they are structured into binary features, Lindekens (1971) suggests, on the basis of experimental facts and common sense, the existence of a primary photographic opposition between the shaded-off and the contrasted; at the same time, he also turns to experiments involving geometric drawings which have the function of brand marks, in order to discover the different plastic meanings (which Lindekens calls "intra-iconic") of elementary shapes. In fact, Lindekens would seem to argue for the same conventionalist and structuralist thesis as the early Eco (1968), but while the latter tends to ignore the photograph as the most embarrass-

ing counter-example, Lindekens attacks its frontally from the beginning.

The emergence of pictorial semiotics

In the late seventies and in the eighties, pictorial semiotics made something of a new start, or, rather, produced several fairly different, new beginnings: one, which is associated with the Greimas school, and whose main representatives are Jean-Marie Floch and Felix Thürlemann, and more recently also Jacques Fontanille; another, which comes out of the "general rhetoric" defended even earlier by the Liège group known as "Groupe μ"; and, finally, a development centred around Fernande Saint-Martin and her disciples in Montréal and Québec. To this could be added, following the distinction made by Saint-Martin and Carani, "the Swedish" or "ecological school", and also, in my view, another recent tradition (with two brands) rooted in the "social semiotics" of M.A.K. Halliday.

Jean-Marie Floch, Felix Thürlemann, and their followers accept the basic tenets of the Greimas school, and make use of its abundant paraphernalia, albeit with unusual restraint. Thus, like all contributions from the Greimasean camp, their articles employ an array of terms taken over from the linguistic theories of Saussure, Hjelmslev, Chomsky, and others, but given quite different meanings. The real problem resulting from this approach, therefore, is not, as it is often claimed, that it deforms pictures and other types of non-linguistic meanings by treating them as being on a par with language, but that, in attributing quite different significations to terms having their origin in linguistic theory, it renders any serious comparison between linguistic and non-linguistic meanings impossible. Moreover, Floch and Thürlemann agree with other Greimaseans in taking all knowledge about the object of study to be irrelevant to semiotics, so that they must refrain from using the knowledge base of, for instance, perceptual psychology.

The interest of this approach resides not only in the fact that it involves the application of a model having fairly well-defined terms, which, at least to some extent, recur in a number of text analyses, but also is due to the capacity of this model to account for at least some of the peculiarities of pictorial discourse. Thus, for example, Floch and Thürlemann have noted the presence of a double layer of signification in the picture, termed the iconic and plastic levels. On the *iconic* level the picture is supposed to stand for some object recognisable from the ordinary perceptual Lifeworld (which is of course a much more restricted notion of iconicity than that found in the Peirce tradition); while concurrently, on the *plastic* level, simple qualities of the pictorial expression serve to convey abstract concepts. Floch, it is true, has tried to generalise these notions to other domains, most notably to literature, but they seem much better adapted to pictorial discourse.

A second, more controversial aspect of, in particular, the work of Floch, is the idea that pictorial meaning is organised into contrasts, i.e. binary terms, one member of which is an abstract property and the other its opposite ("continuity" vs. "discontinuity", "dark colours" vs. "light colours", etc.), both of which are present in different parts of the same picture. Indeed, each analysis starts out from an intuitive division of the picture into two parts, which may then be repeated inside one or both the division

blocks. The remaining task of the analyst is thereafter to justify this segmentation, setting up long series of oppositional pairs, the members of which are located in the different division blocks resulting from the segmentation. Although Floch shows considerable ingenuity for discovering a binary division in all pictures studied, one may wonder whether such an analysis is equally adequate in all cases, and whether it remains on the same level of abstraction.

Thürlemann appears to have been very little active in semiotics in recent years, and Floch died a few years ago. Jacques Fontanille, who now is the principle exponent of Greimasean pictorial semiotics, has tried to introduce a phenomenological tinge to the models inherited from Greimas. The Greimas school is still very influential in France and Spain and, in particular, in Latin America.

Equally of seminal importance to pictorial semiotics, the Groupe μ, or Liege school has consisted of different members through the years, the most constant of which are the linguists Jean-Marie Klinkenberg and Jacques Dubois, the chemist Francis Edeline and the aesthetician Philippe Minguet. Starting in the late sixties, this Belgian group of scholars produced a book of "general" rhetoric, in which they analysed in a novel way the "figures" appearing in the elaborate taxonomies of classical rhetoric, using linguistic feature analysis inspired in the work of Hjelmslev, as well as the mathematical theory of amounts. As in classical rhetoric, a figure is taken to exist only to the extent that there is a deviation from a norm. The latter is understood as redundancy, and thus identified with the Greimasean concept of isotopy, which henceforth becomes one of the essential

building-blocks of the theory. At this stage, Groupe μ seems heavily dependent on a set of Hjelmslevian concepts (which they may not interpret quite correctly; cf. Sonesson 1988,II.1.3.7., and 1989a,II.3-4.), as well as on the notion of isotopy as conceived by Greimas (which in itself may be incoherent, cf. Sonesson 1988,II.1.3.5).

In spite of being general in import, the theory to begin with was mostly concerned with figures of rhetoric as they appear in verbal language. In a short study of a coffee pot disguised as a cat, Groupe μ (1976) tries to implement the theory also in the pictorial domain. Over the years, the theory has been continuously remodelled, so as to account better for the peculiarities of pictorial meaning. Recently, Groupe μ rhetoric appears to leave behind at least part of the linguistic strait-jacket inherited from Hjelmslev, in order to incorporate "a certain amount of cognitivism". Yet, the theory still seems far from integrating the perceptual and sociocultural conditions that constitute the foundations of all rhetorical modulations.

Like the Greimas school, Groupe μ recognises the difference between the iconic and plastic layers of the picture sign (again using a notion of iconicity which is much more restricted than that of Peirce). In this conception, iconic figures can be interpreted because of the redundancy of the iconic layer, and plastic figures acquires their sense thanks to a corresponding redundancy of the plastic layer (thus, for instance, we recognise the bottles substituted for the eyes of Captain Haddock as a figure, because of the context of his body; and we identify the geometrical shape substituted for the circle in one of Vasarely's works, because of the environment of repeated cir-

cles). More recently, Groupe μ (1992) also recognises iconico-plastic figures, which are produced in the plastic layers, while the redundancy occurs in the iconic one, or vice-versa (a comic strip personage which is like a human being but has blue skin would be of this kind, the bodily shape permitting recognition while the blue colour creates the deviation). Norms may be either general, valid for all pictures, or local, if they are created in a particular picture in order to be overturned: thus, the repetition of identical geometrical shapes in Vasarely's works is the backdrop on which another geometrical shape stands out as a deviation.

Contrary to the Greimas school, Groupe μ has never formed a closed movement. Instead, the group has inspired isolated followers in many parts of the world.

The third conception of importance in the domain of pictorial semiotics is the one propounded by Fernande Saint-Martin and her collaborators, sometimes termed the Quebec school. In a number of publications (1985, 1987a), Saint-Martin has been elaborating a theory of visual semiotics, which is based on the conviction that a picture, before being anything else, is an object offered to the sense of visual perception. Visual meaning, according to this conception, is analysable into six variables, equivalent to a set of dimensions on which every surface point must evince a value: colour/tonality, texture, dimension/quantity, implantation into the plane, orientation/vectorality, and frontiers/contours generating shapes. The surface points, specified for all these values, combine with each other, according to certain principles, notably those of topology, and those of Gestalt theory (cf. Saint-Martin 1980 and 1990). The principle merit of this approach

is to have systematised a series of analytical conceptions familiar from earlier art history and Gestalt psychology.

Much of the importance of the Quebec schools resides in its explicit criticism of the Greimasean approach, most clearly spelled out by Marie Carani, who is also the author of important studies concerned with pictorial abstraction and perspective, respectively (Carani 1987; 1988). As compared to the binary opposition, which is the regulatory principle of the Greimas school approach, as well as to the norm and its deviations, which determines the conceptual economy of Groupe μ rhetoric, the Quebec school offers a much richer tool-kit of conceptual paraphernalia, more obviously adapted to the analysis of visual phenomena. Yet this very richness also appears to constitute the basic defect of the theory: it is not clear whether it offers any restrictions on what may be taken as relevant in the picture sign, which means that no analytical direction has been presented.

The constraints imposed by the grid taken oven from the linguistic theory of M.A.K. Halliday by, notably, Michael O'Toole (1994), are, in this respect, much more enlightening. According to this conception, every work realises some alternative from among the ideational, interpersonal and textual "macro-functions", renamed by O'Toole the representational, modal and compositional functions. The first function is involved with the relationships between the participants and processes in the real world, the second concerns the way in which this world is presented by the creator of the sign, and the third has to do with rules of internal patterning applying to the work as such. It is not clear why the functions are given other names, if they are

really analogous to the functions Halliday finds realised in language; and indeed, one may doubt that they actually correspond to these function in any very interesting sense. It is also very unfortunate that, in trying to specify by means of a cross-classification the different options available for the realisation of the different functions, O´Toole often employs traditional art-historical terms, which are notoriously vague and ambiguous, without O´Toole offering any specification of his own.

The pictorial semiotics proposed by Hodge & Kress (1988) and later by Kress & van Leeuwen (1996) also refers back to the linguistic theories of Halliday, but, in this respect truer to their master, they put much more emphasis the social framework of picture use, and thus on pictures used in society generally, more than in the art world. In the first book, the invocation of Halliday seems largely vacuous: the book is really inspired by Barthes' Panzani analysis, and shares all its defects. The second work, however, is interesting for having recourse to other aspects of Halliday's work, his semantic (as opposed to syntactic) analysis of sentence structure, thus pointing out parallels, as well as their absence, between linguistic and pictorial organisation, without necessary falling pray to the customary linguistic imperialism. In the end, however, it seems to me that Kress & van Leeuwen fail to make use of the most interesting contribution offered by Halliday, the analysis of thematic structure, and thus are unable to notice the really importance differences between pictures and verbal signs.

In this context, my own contributions to pictorial semiotics constitute a forth (or fifth) strand, attributed, by certain commentators, to the "Swedish school" (Saint-Martin 1994) or the "ecological school" (Carani 1998). In my main work (Sonesson 1989a), which is devoted to an critical review of earlier accomplishments in pictorial semiotics, I emphasise the basically perceptual nature of the picture sign, and expound some of the consequences of this observation, invoking the testimony of contemporary perceptual psychology, and of philosophical and phenomenological theories of perception. Contrary to, most notably the Greimas school, "the ecological school" thus shuns the autonomy postulate of semiotics, admitting that pictorial semiotics has a lot to learn from psychology and other sciences, while claiming that their results must be inserted into a specifically semiotic framework, which has evolved from the age-old tradition of this science. Critically reviewing the use of many linguistic and otherwise semiotic concepts, such as sign, feature, connotation, iconicity, and so on, I argue that these are useful only to the extent that their import are clearly spelled out, so that the specificity of pictorial meaning can emerge. This work has later been extended, by myself as well as by some students and collaborators, to pictorial rhetoric, photographic semiotics, cultural semiotics, and much else. In the following lectures, I will have occasion to go deeper into this work, as well as into the lessons offered by the other schools of pictorial semiotics, when critically acknowledged.[26]

Some contributions from

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26   Nothing have been said here about the orthodox Peirceans, who only recently seem to take an interest in pictures, mostly, however, in the spirit of a simple application of Peircean categories to a new domain of reality, pictures.

philosophy and psychology

At is present stage pictorial semiotics may well have less in common with Barthes' Panzani analysis than with that "linguistics of the visual image" invoked by the art historian E.H. Gombrich, or that "science of depiction" called for by the psychologist James Gibson; as well as with the studies of pictorial meaning initiated in philosophy by, for instance, Edmund Husserl, Ludwig Wittgenstein, Nelson Goodman, and Richard Wollheim. The most relevant reference, however, as will be seen in later lectures, may well be that to Gibson, who, together with such disciples and colleagues as Julian Hochberg, John Kennedy, and Margaret Hagen, has started to elaborate a psychology of picture perception – but psycholinguistics cannot do without linguistics, and, by the same token, we need to establish a more general, theoretical, framework for the study of the picture sign (cf. Sonesson 1989a).

From the point of view of semiotics, the problem with the work of Goodman and his followers is that it is explicitly normative: not only does Goodman not attend to the common sense notion of picture, which he claims is contradictory, instead of which he introduces his own definition, but he compares pictures, not with real-world language, but with the logically reconstructed language of analytical philosophy. Philosophers of the phenomenological school, as well as some ordinary language philosophers have made more directly relevant contributions, since they start out from our experience of the common sense world. As we shall see, Wollheim's characterisation of the picture as being a kind of "seeing-in", inspired by Wittgenstein's work, is very similar to the earlier analyses of "pic-

torial consciousness" elaborated by Husserl. Both contribute to our understanding of the specificity of the picture sign within the general category of iconicity.

Within perceptual psychology, Gestalt psychology has often had recourse to pictures in order to illustrate certain general principles of perception, and the same is true of many social constructivists, notable with reference to so-called "impossible pictures" (similar to the work of Escher and Reutersvärd). Only James Gibson realised the necessity of a particular study of pictorial perception, originally because he wanted to protect ordinary perception from the abusive generalisations suggested by pictorial examples. To perceive a picture is very different from the perception of the real, three-dimension world, already because the former is actually a surface, masquerading as part of the world of our experience. The work of Gibson, Kennedy, and Hochberg has been very important in pointing out the particularities of the picture as a sign.

Contrary to the other research traditions in pictorial semiotics, the ecological school does not defend any autonomy of semiotic knowledge. In the following lectures, we shall therefore delve deeper into the heritage of those philosophers and psychologists who have taken an interest in pictures. But we will replace their findings within a specifically semiotic framework.

Summary

In the light of the earlier discussion of semiotics general, we first studied the speciality of pictorial semiotics, claiming that it must be concerned with the specificity of the picture sign, which involves relating it to those higher order categories of which it

is a part, such as meanings, signs, iconical signs, visual signs, and so on, as well as scrutinising the different categories which it contains, such as construction types, function types, circulation types, and organisation types. After referring to the pioneering work of Barthes and Eco, which has been important mainly because of the critical reactions which they have spurred, this section characterised the most important research traditions within contemporary pictorial semiotics, such as the Greimas school, the Liege school, the Quebec school, two approaches developed out of the linguistics of Halliday, and, finally, the ecological school, associated with the work of the present author. We also noted the important contributions of some philosophers and psychologists, who are not normally identified as semioticians, but to which we will turn more fully in the following lectures. This historical parts thus finishes the first lecture, in which we have been involved with a characterisation of semiotics in general, and pictorial semiotics in particular, first with the help of some simple pictorial examples, with led on to an epistemological discussion, and finally to this last historical part.

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