

Gombrich on the Renaissance II

Symbolic Images

E.H.Gombrich

July 29–August 9, 2020

A picture says more than a thousand words. But does it? Yes and no. What is a picture? The word picture indicates that it is a case of a representation. A painting nowadays need no longer be a picture, it may not represent something definite, at least not something concrete and generally agreed on. Consider a half-way competent picture of a horse. It represent a horse but nothing else, not a house, not a mountain, not a lamp-post. If the picture is more technically accomplished, we may ask meaningful questions, such as what race of a horse, whether it is a unicorn with its horn removed (supposedly traces of the broken off horn should be visible). In a text it is different. A horse is represented by a meaningless combination of characters (or strokes such as in a Chinese script) which only acquires meaning through a shared convention. The sharing of the convention is clearly at a high meta-level above the concrete specks on a piece of paper. Of course the convention differs from language to language, but a pictorial representation of a horse is universally understandable (once again assuming that it is half-way competently executed). We need not go through a process of sharing conventions.

This is not the whole story. Gombrich is fond of referring to schemata when it comes to draw certain pictures of concrete objects, say such as horses. To draw a horse there are certain features you need to get right in order for it to be more or less immediately recognized as such by others. Of course within a schemata there is a great latitude in execution up to the discretion of the artist. To Gombrich schemata are crucial both the development of individual talent as well as the development of art, as far as we can talk in a meaningful way of the development of art in terms of improvement¹. Thus one can ask at a higher level, how much hidden shared conventions go into the literal interpretation of a picture. We will not pursue this here.

One can thus speak about the literal meaning of a picture. It represents a horse. Now, unlike language, when the word, or equivalently its visual representation on paper, implicitly demands of the reader to think about a horse in general, in quasi-platonic terms to think of the 'essence' of a horse. Thus as to language we can speak in general abstract terms, while any picture necessarily must be a representation of something specific. This problem was addressed by Berkeley who pointed out that it is impossible to draw a general triangle, every triangle has to be specific. One may then conclude that any mathematical argument in a geometric proof that refers to a picture of a triangle will be automatically, if not fallacious at least lamentably, incomplete. Hence the ambition to reduce mathematics to deductive pixels, making an argument independent of any visual props. Maybe a commendable ambition, and certainly with its uses, but somehow naive. Can you get

¹ This certainly can be done as to the problem of mimesis

an understanding of a triangle without seeing one? Pictures may by necessity to be restricted to the specific but they are interpreted by human observers who seem to have some mysterious ability of abstraction. An easy examples of that, which does not seem to be immediate, is the absence of intrinsic size². We have no problems of scaling a picture, there is no indication in a picture of its size. There is of course a size imposed by the picture as an object say of ink spread out on paper, but this has no relevance at all. If we look at a picture of a horse in a book we do not think of it as a miniature horse fitting on a page. And of course pictures are material objects which can be turned around and looked at closely and distantly, without changing the object, and hence nor its interpretation. We do get visual images of horses by looking at visual images of them, not by reading about them in a book – and here a picture indeed says more than a thousand words. Seeing a few pictures of a horse (and better still? seeing one in real life) allows you to recognize horses in pictures (or in real life) you have never seen before. The conventional word 'horse' simply points to this process.

This easy automatic process of image recognition for humans has been notoriously difficult to implement on computers trying to make them visually intelligent. The classical approach is to set up certain criteria for what is an image of a certain kind (this may make you think of Gombrich theory of schemata referred to above). But this is not easy, and any attempt to make specific criteria is at the same time an invitation to evade it and fool the computer. The modern solution is built on enhanced learning (maybe the first example of which goes back to Antiquity finding the square roots of numbers by successive approximation, every proposed approximation being tested and accordingly modified). One may think of this as consisting of two components. Firstly, instead of coming up with concrete criteria one thinks in meta-terms of criteria presented in some kind of general pattern, typically coming with parameters which have, like the square roots above, to be successively fine-tuned. Secondly, this has to be fed by big data, and we are typically thinking of an amount of data that no human can process. One may think of it as an evolutionary process proceeding blindly in a huge configuration space subjected to certain constraints to avoid combinatorial explosion. Evolution is literally about rejection (just as in the successive approximations of square roots) and what it creates is just a (lucky) side-effect, and this I think is very important to emphasize. to bring out the element of unintended luck. The evolutionary approach comes with no guarantee of success. And what is success anyway? It lies in the eye of the beholder. How modern software actually recognizes objects, in particular human faces, is a mystery, the criteria which have been evolved may very well be opaque to human understanding. Thus such approaches should be thought of as experiments. A classical computer program is characterized by human intentions, more or less transparent, and designed with the specific purpose of obtaining a certain goal. In principle a human can understand what it does, because every single step has been designed, and thus predict that if successful, i.e. carrying out all the small steps correctly, will result in mission being accomplished. In the simple case of the square root process, we can immediately see that it will carry out what we want, and we can if we like easily write down error estimates and get precise rates of convergence and thus speed of approximation. Nothing of that is available to more sophisticated learning processes. But why does it work in specific instances? Due to flukes? The approach is expected to be universally available, due to the faith in the evolutionary processes (which pertains to widespread speculations of extra-terrestrial life and intelligence and thus the

² This ties in with the Greek distinction between quantities and numbers, which tends to be ignored by modern educators. There are no intrinsic units as to quantities, hence Weber's law

possibility of artificial intelligence beyond the control and scope of human³). While humans still can rival computers in face recognition it no longer can in games such as chess and go, where strategies, impenetrable to humans, are evolved. This ought to kill those games, at least as played by humans.. .

Gombrich book, written in the 60's, does not concern artificial intelligence but the meaning of pictures, in particular the meaning of Renaissance paintings. It concerns icons, signs and symbols, the modern study of which goes back to the mathematical philosopher C.S. Peirce; and consequently it forms a subset of Art history, referred to as iconology and iconographics, but of course any serious philosophical inquiry forces you to go back to the basics, which has the danger of redirecting your initial pursuit.

In short the problem that occupies the author is the duality between texts and paintings (visual works of arts including sculptures). Paintings and sculptures were at that time normally commissioned and the artist given instructions on what to depict. Language being abstract and paintings specific, this allowed the artist a lot of latitude for interpretation and play. Thus the picture will be an illustration of a text. But given the picture can you reconstruct the text, either as explicitly given by the commissioner or implicitly given by the intention of the artist himself (or a combination of both). Without further clues given by the context the task seems impossible, and usually is, but this does not stop people from trying. What we are talking about is the 'meaning' of the picture, and meanings come at different levels. There is of course the literal meaning, as in the picture by Leonardo, showing two women and a toddler, one of the women situated in the lap of the other and stretching her arms towards the toddler about to cuddle a lamb. So what? Why making such a painting? Our interest in the painting is going to be enhanced if we learn that the woman in the lap is the Virgin Mary and the lap belongs to her mother Anne, and the toddler is of course the infant Jesus. But who is the lamb? Do we need to know that? We have now established something which is as close to a fact as possible, never mind if all three personages are fictitious, and even if not, their representations are. But how could we assert this fact? We do not know how they looked like (if they looked at all) but we can compare them with our representations, including other works by Leonardo. Thus we are reduced to a shared culture and the bottom line being that there must be some documents linking a text with a picture. But we can go beyond this, and look for a 'higher' meaning. Thomas d'Aquina speaks about two meanings of a text; the literal on one hand, the spiritual on the other. As to the latter one needs to interpret a text, literal entities are mere things that stand for other things. Symbols so to speak. Yet one cannot set up a simple minded dictionary, just as one cannot set up a 1-1- correspondence between words in two different languages. A particular word can mean many things depending on the context, similarly something can be a symbol of many things, it all depends on context. During Medieval times the variety of texts available to monks was limited and they kept interpreting what they had in order to find out its deeper spiritual meaning.

³ A seductive argument often seen is that if X_1 can create an intelligence X_2 greater than itself, meaning that X_2 can do whatever X_1 can, and more! In particular it can create an intelligence greater than itself. Thus the process seeded by human intelligence can go in for ever. This is a very scholastic argument. If you remove the questionable meta argument, this idea is exactly what is implemented in the square root process

To this task they did not bring only a great amount of time and attention but also a lot of ingenuity. But where did they go wrong? Was it not just a house of cards liable to collapse at every moment? Gombrich admits that to read all those interpretations is very tedious. The higher the abstraction of an interpretation, the higher the level, the more fanciful and ungrounded. Can we really divine the intentions of an artists? Freud thought so, but was that anything but a beautiful conceit? The intentions to undertake a certain piece of art are hidden, and the motivations and reasons manifold and often irrelevant to the piece itself. The iconologist should be aware of his or her limitations and only endeavor to reveal one meaning at a modest level, anything beyond is pure speculation. It should not be thought of an artistic quest but as a forensic. One should rely only on available evidence, not on your irresponsible imagination. It is in short detective work, which has its own excitements and rewards. To go beyond this in interpretation can be an artistic pursuit by itself. Everyone is free to interpret a piece of art beyond the documentary intentions of the artist. A piece of art may allow many interpretations never intended by the artist, and those new interpretations make up a new piece of art. Shakespeare was in the habit of taking old stories and plots and developing them according to his fancy. In mathematics you may take a piece of work and develop it further beyond what the original author intended. This is how new works in mathematics often arise. A piece of Art does not belong to the artist, just as a piece of mathematics cannot be claimed and patented by a mathematician. It belongs to the world and can be reinterpreted and developed.

Obviously a text cannot replace a picture, although it can add valuable extra information, even if that is very terse⁴. But what about an explanation of a poem, or say a joke. Can those be replaced, or are there extra-textual features of them which need to be experienced? Surely there must, a poem and a joke is not just a text in compressed form, if it were there would be little need for them. What about mathematics. A theorem states mathematical facts, but can you speak about the meaning of them, as something distinct and beyond the precise mathematical statement. A proof certainly adds to the meaning of a statement, not just in the sense of justifying it. But the meaning of anything never emerges in isolation but need a context. It is the way mathematical statements are used in different context that gradually reveal their 'true' meaning. Something similar can of course be said for poems and jokes, which tend to interact with each other, but of course the phenomenon is most apparent in the case of mathematics. Then there is the general notion of an idea. An idea needs to be manifested in some way, typically by a text, but even a picture can convey an idea, sometimes more vividly than a text⁵. An idea expressed in a text say constitutes the essence of that text, but somehow hidden in it. The idea cannot be identified with the text which struggles to embody and project it, it cannot necessarily be expressed better in another text, just as one horse cannot necessarily illustrate 'horseness' better than another horse. An idea is somehow floating above texts, which can be seen as various attempts at reification. The phenomenologists speak about 'Fundierung', a text is just one of many ways of trying to pin it down, all efforts of which are elusive. Can robots understand ideas, as opposed to being programmed on the basis of them? An enhanced learner certainly extracts something tangible from processing a lot of data, but does that have anything to do with humans grasping an idea?

Gombrich ambition is more limited and hence more precise and focused. He wants

⁴ Given a street scene say. It s very much enhanced by a caption such as Budapest 1932.

⁵ I did not really understand blow-up until I saw a real picture of it, then it clicked

to find out who commissioned a picture and what the precise instructions were. This is a historical question which cannot be resolved by pure thinking and speculation, but certain documents have to be traced and linked to the picture. Once one has that, one can start interpreting a painting in earnest. He cautions the reader, before you start on the risky business of interpretation, you need to have a clear idea to what category a painting belongs to. If you think that a tragedy is a farce, you will find many passages whom you normally would have found terrifying merely amusing and ready to make you laugh. In all kinds of detective work, including that which in mathematics goes for deduction, you find the temptation to build a house of cards. One conclusion serving as a premise, enabling you to go higher and higher up. Houses of cards are liable to collapse, they are only as strong as the weakest link. Mathematics shows in that regard a remarkable resiliency unrivaled by any other pursuit. In the humanities you no longer can rely on such support and the trick is to stop in time, as Gombrich cautions the reader.

As a concrete example of Gombrich kind of study one may turn to the paintings by Botticelli, especially *Primavera*. It shows nine figures with scantily clad Venus at the centerpiece. Using the figures as mere symbols, you easily go astray adding one unwarranted supposition on top of another, each step appearing so seductively reasonable, as the human instinct, as William James observed, is to believe anything until contradicted, and in non-falsifiable settings, there is no need to abandon trust. As to symbolic interpretations Gombrich cautions the reader that there are no dictionaries, thus we are not strictly speaking about codes, in which one code can be translated into another, but about processes where a symbol can have different meanings depending upon the context.

Gombrich proceeds professionally, thus first establishing that the painting was intended for a cousin of Lorenzo de Magnifico, a namesake - Lorenzo di Pierfrancesco - much less known. He weaves a tale in which the painting was commissioned by a tutor to the young boy, to show him beauty in the flesh and thus to inspire him to lead a good and virtuous life; an abstract idea less likely to be conveyed by mere words than through a picture which was to speak directly to the emotions and imagination of a young teenage boy. The tutor he identifies as a certain Ficino a Neo-Platonist philosopher, whom Gombrich dismisses as not only non-original but not even consistent. The next step is to try and guess what the commission actually was. The author claims that it is based on the tale X to which the painter had been urged to interpret freely. It is a common observation that the imagination does not work in the void but needs obstacles and constraints within to work and struggle. Leonardo famously advised artists-to-be to look for clouds and ink spots and similarly random images in order to see faces or landscapes which then could be further elaborated onto the canvas.

A more elaborate discussion concerns the meaning of the Stanza della Segnatura of Raphael to be found in the Vatican palace, among them most famously the so called school of Athens. What is truly intriguing in such an exercise is the mixture of the Christian and the Pagan, the latter represented by the classical world, especially the Greek. While in early Medieval times the theme for paintings were Christian and Biblical, but with the Renaissance the mythologies of antiquity rivaled those of religion. Many claim that this is the essence of the Renaissance, the rediscovery of the ancient treasures. However, Pagan thought had had a crucial influence on the development of early Christianity, and the

latter is infused with Neo-Platonism, be it in a somewhat more literal way than was ever intended by Plato himself. Higher reality becomes a place to which humans can strive and find eternal repose, more poetical than philosophical. The classical world with its mythologies, so similar in spirit in many ways to Hinduism, provided a richer world to feed the thoughts of theologians than the scriptures. The presence of such secular works at the center of Catholicism is rather remarkable. The Popes when not outright scoundrels and power-players such as the * were sophisticated intellectuals, whose religion was more scholastic than populous.

The discussion, although loaded with erudition about to overflow, tends to be a bit tedious, as there seems to be no definite goal in mind, only a flow of volubility, pleasant to the orator, less so to the captive audience. Nothing of this so far pertains to paintings as paintings, whether they are crude or skilled, play little part in the elucidation; although they certainly would not have been painted in the first place, and at such prominent location ensuring continued survival until modern times, had it not been for their purely painterly virtues. However, Gombrich takes the time to look for possible precedents and makes a rather convincing case that Rafael has allowed himself to be influenced by other painters and paintings and taken bits and pieces from each and subtly transformed them into new compositions greatly transcending the rather crude models. Creation never occurs in the void but with material ready-handed and that does not bespeak a lack of imagination nor originality because the former is not stimulated unless confronting obstacles and the latter becomes not manifest unless compared with something very similar. As William James remarked, what arouses our curiosity in a setting is what is familiar and can thus be directly related to.

The collection of essays ends with a very long and ambitious one on symbolism in painting and different levels of representation and abstraction, a subject rife with philosophical potential.

The main part of the concluding essay deals with Neo-Platonism, especially its rôle in Christian theology, and original Platonism, which of course has proved much more flexible than the more dogmatic Christian Neo-Platonism which has made a much more literal interpretation of Platonic ideas. As Gombrich notes, in Plato's Platonism there is no desire for the exalted realm of forms to wish humans to reach up to it, the whole approach is much less human centered, but needless to add, this does not deny that there are very strong links.

How should a symbol be interpreted? As a mere convention or as having a deeper meaning which it is the purpose to reveal? Platonism clearly favors the latter, symbols are not just signs with no intrinsic meaning, only carrying the meaning through the context it finds itself in, a more Platonic interpretation exhorts the observer to discover the essential quality of the symbol and thus divulge what it really refers to. Plato discerns three ways of gaining knowledge. The lowest is through the senses, e.g. by sight, than comes knowledge through reasoning, as in deductive mathematical reasoning, which is a linear process, and finally the highest form which is a kind of intuition that enables you to see everything in a flash. In mathematics gaining knowledge by reasoning is essentially a local understanding, only when you see how different things fit together and you can go from one to another rapidly, have you obtained mathematical understanding (which of course can be done at

many different levels). This is something Galileo understood and Gombrich refers to him with some lengthy excerpts. The irony is that 'seeing' is used in two different senses. One on the level of seeing by your eyes, receiving sensual input, one in a sense of synthesizing visual sense data to a comprehensive whole, to have it 'pop' up and 'flash' before you so you can take it all in in an instant, and 'seeing' has been used as a metaphor for 'understanding' since antiquity. Thus there is a difference taking things in by the eye or by the ear, in the latter case it is sequential and a process that takes time ⁶. For that reason pictorial representations of ideas can be so much more effective and also easier to fix in memory. But of course it is not so easy to represent abstract ideas pictorially and hence the need for visual symbols. Classical mythology can either be treated as literal stories, and then it becomes quite puzzling; how could Greek culture, so sophisticated, be satisfied with what to our modern eyes seem rather obtuse soap-operas? One explanation of course is that it should all be taken symbolically, and thus it becomes entertaining and easier to remember, and from the view of modern visual art, it lends itself to pictorial representation.

This leads to the topic of metaphors which you usually connect to language. Language is invented (by evolution?) to deal with the world, and as Aristotle explained, in order to do so you need a systematic categorization; whether that categorization is merely conventional and hence accidental, or does correspond to something 'natural' is another question. Aristotle thought of metaphors as moving across categorical boundaries, which Gombrich takes exception to. As he notes, referring to an old teacher. The problem with language is not what it means to be a metaphor, but rather what it means to be literal. According to the author language thrives on metaphors, and is actually built up by metaphors, as there is a compelling need to invent them, and in fact if you look closely at language you will find it abounding in dead metaphors. While there are plenty of words for concrete things there are few for processes and thus they need to be improvised, if 'lucky' they can become permanent addition to the language. Idiomatic expressions, is another kind closely related to metaphors, and should be thought of as single words.

Gombrich concludes with a brief historical survey of how symbols are treated by artists and would be scientists. He notes that artists as Blake took symbols in a Platonic sense as being something discovered not invented. Goethe flirted with it, and hence gave it authoritative support; but of course the romantic idea of symbols was taken up by Freud and by extension Jung, who seriously tried to find the true meanings of symbols as they appeared in dreams. Gombrich cautions that when it comes to such explorations one should not abandon reason as pursued by speech, if you do so you run the risk of becoming inarticulate, even falling into insanity and worst of all producing mere inanities

⁶ This also happens physiologically when you look at a picture, in fact you scan it by letting the eye move in quick so called saccades over the pictorial surface but the process is almost exclusively subconscious, while in hearing you are aware of a different process which may require more conscious effort; the point is that you do not view a narrative, or a piece of music, as fixed in time. When it comes to relations between things, they become much clearer if given a spatial interpretation. As Gombrich notes, it is not obvious that the wife of your wife's father-in-law's nephew is a wife of one of your cousins, but if you represent the relations in a diagram the conclusion will be immediate. Similarly the way mathematical algebraic notation has been developed it can in most cases be taken in by the eye, even simple expressions become rather formidable when you just hear them spelled out in language.

masquerading as profundities.

August 9, 2020 **Ulf Persson:** *Prof.em, Chalmers U.of Tech., Göteborg Sweden* ulfp@chalmers.se