

Acting with pictures¹

Klaus Sachs-Hombach

Pictures are increasingly influential in all areas of society and even shape political discourse to a remarkable extent. In order to better understand why pictures are so powerful, the present article compares the affordances of using words and pictures for communicative purposes, thereby highlighting various similarities and differences between the two modes, and ultimately developing a pragmatic theory of picture use. The article's main thesis is that using pictures in a communicative context offers powerful affordances because understanding pictures involves a particularly intense engagement of our perceptual system. This can be formulated in terms of a predicative picture theory that describes pictures in analogy to predicators, as fulfilling a predicative function. At the same time, however, it seems that pictures are likely to be under-determined in various respects. And since their being under-determined allows that any change of context easily alters the effects pictures provoke, it becomes much more difficult to properly control the communicative effects of pictures.

KEYWORDS picture use, language, nomination, predication, illocution,
 pictorial act theory, perceptual realism, pictorial meaning

1. A short introduction: The power of pictures

Pictures are increasingly influential in all areas of society and meanwhile even shape politics to a remarkable extent. All of the controversial events during the last decades have been turned seemingly into a public debate only after the release of particular pictures that were able to win public attention by emotionally crystallizing the matter in question: remember for example the Abu Ghraib abuse photos or more recently the picture of a drowned Syrian boy on the shores of Greece.

Despite the intense research on visual communication during the last decades, there are still many questions to be answered in order to scientifically better understand how pictures function within communication. In the following, I would like to suggest and to discuss an approach that is oriented towards a pragmatic theory of communication similar to speech act theory but also different in some important respects. Using pictures, i.e., producing and presenting pictures, for communicative purposes is considered within such a framework as a special kind of action to make someone understand something or to motivate someone to behave in a certain way. There are, of course, various ways to do so, among them the use of spoken or written text as the most prominent way of communicating. But there are many other possibilities equally powerful, at least in some respect, like using gestures or pictures. Despite not employing words, those alternative communicative strategies have to follow similar rules on a more general communicative level. In order to communicate with pictures, we need to presuppose some of the communicative maxims speech act theory is presupposing for verbal communication. They of course must be complemented by some more specific rules that are able to account for the peculiarities of visual or pictorial communication.

The main thesis I put forward in this article is that using pictures in a communicative context offers a powerful option because understanding pictures involves a particularly intense engagement of our perceptual system. An upshot of that thesis is that it is much easier to arouse emotions with pictures, since emotions can at least partly be seen as some kind of evaluation of perceptual stimuli. The assumed higher impact of using pictures has some costs, though. There is always some trade-off when you are facing limited resources like attention, motivation or understanding. The negative effects in the case of using pictures are that the more directly you are able to win attention and to motivate for some action, the less complex the message normally has to be.² Therefore, pictures are effective communicative means only because they neglect some aspects thus emphasizing other aspects. A more cautious formulation might be: If pictures become effective (mass) communicative means, they are likely to be under-determined in various respects. Being effective makes it then also more difficult to properly control their use, since being under-determined allows that any change of context easily alters the effects pictures provoke. But let us start from the beginning and progress step by step.

2. A preliminary clarification: What is a picture?

According to my conception of a 'general image science' (cf. Sachs-Hombach 2003) I would like to suggest that we start our considerations with the area of external, i.e., material, pictures. I reserve the term "picture" for them and use the term "image" as a broader term including very different kinds of visual phenomena. More specifically, I am mainly interested in the field of representational pictures or depictions. Apart from pictures within art, this class of pictorial representations encompasses all kinds of pictures designed for practical use. An object then is a picture in this sense if it is (1) planar, artificial, and relatively durable, if it (2) serves as some kind of representation or illustration of real or fictional circumstances within a communicative act, and if it (3) is perceived in a way similar to the perception of the matters depicted. That definition describes what we usually regard as the core area of external pictures and what I address as "signs close to perception", e.g., portraits, holiday photographs, illustrations in magazines or press photographs.³

An increasingly broader conception of pictures emerges if more and more of the conditions under (1) and (2) are abandoned. Thus, for instance, an object is a picture in the broader sense if it does not fulfill one, several, or all of the conditions listed under (1) despite falling under condition (2). Accordingly, sculptures or cloud pictures can be regarded as pictures in a broader sense. The essential condition they must share with the phenomena of the core area is the special way we perceive them. This kind of perception, which can be denoted "pictorial perception", is determined as follows: An object is perceived pictorially (i.e., is a sign close to perception) if its interpretation uses the intrinsic structure of the object as starting point for the same perceptually driven process of categorization that is necessary in the case of directly perceiving the matters depicted (cf. Sachs-Hombach 2003, 88ff).

Why choose the area of materially realized pictures in general and depictions in particular? The suggestion of such a focus presupposes that no satisfactory theory exists up to now that covers the entire phenomenological area or even just a segment considerably larger than the core area suggested. Given this presupposition, there is only one reason against a preliminary limitation of the topic: the danger that important, possibly irreversible preliminary decisions are unconsciously made for the further course of theory development. It shall be assumed here that theories regarding different phenomena as paradigmatic also presuppose different basic assumptions. The choice of a starting point, accordingly, is closely related to the respective theoretical orientation. It could be pointed out, for instance, that traditional resemblance theories primarily refer to objective, perspectival pictures

in their analyses whereas conventionalist picture theories find support in the multitude of forms in abstract and non-objective art, while approaches oriented towards phenomenology tend to assign a paradigmatic function to mental images.

In my assessment, three advantages speak in favor of taking depicting as a core area: 1) Their existence is unproblematic, contrary to other pictorial phenomena. 2) We can draw on an already extensive research with these pictures. 3) They can be considered as very early evidence of human existence. 4) Early evidence reflecting the phenomena of pictures are addressed in particular depictions (cf. Sachs-Hombach & Schirra 2013). Additionally, other areas (such as the area of aesthetically valuable pictures) are less apt as core areas, as especially pictures of art enclose aspects that are not genuinely pictorial. Being artistic certainly heightens the complexity and efficiency of pictures, but does not necessarily contribute to the understanding of a fundamental picture competence. Due to their complexity, pictures of art rather complicate the analysis whereas it seems more promising from an epistemological point of view to start with simple phenomena, and to then introduce additional parameters for more complex analysis.

3. Picture and communication: General preliminary remarks on nomination, predication, proposition, and illocution

The picture theory I favor can be conceived of as a predicative picture theory. For a starting point it chooses the phenomenon that pictures are often provided with picture titles, captions or explanatory notes, i.e., they are actually used as part of text-picture-compounds (cf. Stöckl 2004). In the case of structural pictures (like maps or diagrams), such an embedding is even indispensable for realizing the respective communicative intentions. This suggests that pictures do not – at least not automatically – fulfill communicative functions in an independent fashion, but do require an additional element in many cases. In order to better understand the nature of the complement assumed and the connection between picture and verbal language, the relevant basic concepts of communication theory may now be recapitulated as a first step. The initial focus of attention is here on language use. Subsequently, the question arises which of those basic concepts may also be helpful for an understanding of picture uses. Having thus determined the features shared by verbal language use and picture use, we can consider in a second step the differences between language use and picture use. This will then motivate the introduction of a predicative picture theory.

Let us therefore start from the elementary case of singular declarative sentences, say: ‘The late medieval city of Magdeburg has a conspicuous dome from the early Gothic period.’ The structure of such a declarative sentence can be divided into two components. On the one hand, we use this sentence to point at a concrete object, for instance late medieval Magdeburg; on the other, we assign this object a property, namely the property of having a conspicuous dome. These two components roughly correspond with the entities designated in linguistics as subject and predicate. Strictly speaking, however, this is not so much a question of the syntactic categories but rather of the pragmatic functions performed by these components: Here, language philosophy uses the terms of nomination and predication with reference to the two partial activities of the overall sign activities, those of nominator and predicator respectively with reference to parts of the linguistic signs by means of which those activities are enacted. In the case of the singular declarative sentence, the nominator designates an individual, usually spatio-temporal object. In the case of general declarative sentences, the only difference is that sets of objects are now thematic.

According to general understanding, a nominator can appear in three different varieties: as a proper name, as a designation and as a deictic expression. ‘Magdeburg’, in our example, is a proper name and thus a singular terminus. Therefore, the respective declarative sentence is a singular sen-

tence. The specification 'late medieval' merely provides a temporal limitation which we can ignore for the moment. Were we to apply a designation, we could alternatively speak of 'the city at the Elbe with an imperial stronghold of Otto the Great'. The complexity of designations can be freely chosen. Sometimes they contain a proper name onto which the nomination is fixed, as is, in the example, the case of 'Otto the Great'. This is not necessary, however, as illustrated by the example 'the most famous living philosopher'. Concerning the deictic nominators, there are once more various possibilities of specification, for instance by anaphoric structures or demonstrative pronouns, the latter in particular combined with pointing gestures. Deictic designations, such as 'this conspicuous dome', are a combination of the latter two varieties of nomination.

In contrast to the nominator, the predicator necessarily contains an expression denoting the assigned property (or relation). A simple example would be 'is mortal'; somewhat more complicated is 'has a conspicuous dome from the early Gothic period'. Predicators, too, can acquire any level of complexity by subsuming several properties. It is important to see that an expression can assume one function or the other, according to the utterance in which it occurs. In particular, expressions that denote properties and that might be labeled as "predicates" can also be used within a nominator. Take, for instance, the following two examples: 'Aristotle is Plato's student' and 'Plato's student is a famous philosopher'. In the first sentence, the expression 'Plato's student' serves within the predicator 'is Plato's student' as a characterization relative to the object denoted by means of a proper name, whereas in the second sentence, the very same expression indicates the object to which a property is assigned.

This structure of singular as well as general declarative sentences, consisting of one or several nominators and one predicator, constitutes the proposition. The proposition contains the declarative content or the sentential meaning of the utterance and is usually expressed "as such" in a *that*-phrase: 'that Aristotle is a student of Plato's'. Since Frege's analyses, the proposition is regarded as the smallest unit of the highly developed human verbal language. Thus it follows that, as a rule, we would be unable to convey meaning if we uttered only nominators or only predicators. Taken by themselves, predicators are unsaturated functional expressions that are in need of nominatory addition within a communicative situation. Were someone to utter the phrase 'is arrogant', we would justifiably ask whom he was talking about.

Within the framework of speech act theory, a further differentiation has been made which, to me, seems fruitful from a picture-theoretical viewpoint as well – namely the differentiation between propositional structure and illocutionary role. Whereas the proposition contains the content of a sentence, its illocutionary role arises from the attitude the speaker takes towards the content. We can *claim*, accordingly, that Aristotle is a student of Plato's, but we can also just *assume* this or *hope* for it. We can furthermore *inform* about this fact, *question* it or *declare under oath* its validity. These different possibilities are denoted as the respective illocutionary role of an utterance. They do not derive from the proposition itself but from the communicative activities, as well as the respective communicative intentions into which the proposition is embedded.

In conclusion therefore, it follows for verbal communication that the utterances of the central form, as a rule, always display at least three aspects: respectively, a nominatory, a predicatory and an illocutionary aspect. The first two at least are necessary in order to convey something concerning circumstances within the world, that is, for declarative sentences. Hereby, one object is picked out and – by means of the predicator – assigned a property (or several objects between which a relation is meant to be established correspondingly). Together, nominators and predicator form a proposition that may find use in various illocutionary functions (cf. with regard to language-philosophical basics in general Tugendhat 1982).

4. Picture use as a communicative action

Let us suppose that pictures, too, serve the purpose of conveying something to a communication partner, e.g., in order to inform him about the outward appearance of a particular object, to mobilize protest against a political deficiency, or just for the sake of entertainment. In all those cases (as well as in many others), we assume a communicative core function analogous to language use. The question then arises whether and to what extent this assumption entitles us to describe the use of pictures as being analogous to the use of language.

There have already been some attempts to transfer linguistic terminology – and especially the speech act theoretical approach – to the area of pictures. In 1978, for instance, Kjølrup talks of ‘pictorial speech acts’ (Kjølrup 1978). Terminologically, it is of course quite problematic to denote the concrete applications of pictures as ‘speech acts’. Apart from the problem of adequate denotation, however, it seems correct to me to regard the use of pictures as a communicative action, as an act of painting or showing, intended to convey something to somebody by means of producing and presenting an object. This characterization of picture communication as an act of showing something to someone suggests at the same time similarities with and differences from verbal communication. The similarities refer to the communicative frame conditions, and thus to a very general model of communication, the differences to the respective way by which something is conveyed, in this case particularly to the specific aspect of showing in pictures, which is naturally connected to special mechanisms of understanding.

If the activity of picture presentation is described in analogy to speech acts, it is possible to ask first of all and in a very general way whether it makes sense to differentiate, as a further similarity, between the respective illocutionary role and propositional content in the case of pictures as well. When someone presents a picture in order to claim towards another person the particular visual character of an object not present in the presentation situation, the act of claiming must be considered as the illocutionary role of the communicative act, whereas that which is claimed (for instance, that an object has a certain outward appearance) corresponds to the propositional content.

The assumption that pictures have a propositional content, however, serves to point out some problems in our analogy. In contrast to the case of language, there seems to be no clearly defined proposition in the case of pictures. Furthermore, no grammatically supported assignment of single expressions to the corresponding functions is obvious. When it comes to pictures, the construction of complexes from single elements so characteristic of language is a lot less clearly defined. Thus, in analogy to which linguistic units are pictures to be understood? In analogy to which functions do we have to understand what sections of pictures? Here, a brief glimpse shows already that any unambiguous assignment remains problematic because pictures, depending on their respective application and context, can be defined in analogy to texts as well as to sentences or words.

Let us go through the analogy of picture and sentence in greater detail by means of an example, and let us limit our deliberations once more to representative pictures. We interpret the presentation of a picture, e.g., the presentation of a copperplate print of the medieval city of Magdeburg, as analogous to the utterance of a singular sentence. We may understand that presentation as the claim *that this particular city did have, at a particular time and viewed from a particular perspective, the respective visually characterized silhouette*. Leaving aside for now the illocutionary function, we are dealing here with a proposition (by analogy to a sentence) inasmuch as a particular object is assigned a particular property. Whether medieval Magdeburg did indeed possess this property (i.e. a particular outward appearance), and whether the picture can thus be regarded as true, is, for the time being, insignificant. It would even be a confirmation of our analogy between (the presentation of a) picture and (the utterance of a) sentence that the truth value of the picture can be doubted, for it is a principal and essential characteristic of propositions that they can be true or false. Let us therefore

determine that there certainly are many cases in which pictures can be understood to be analogous to single singular sentences.

Even in these cases, however, it remains unclear how pictures realize the supposed proposition. Taking seriously the analogy to sentences, we would have to assume that pictures can be divided into autonomous sub-units. At this point indeed, their basic differences from language begin to show, as pictures lack the division into nominators and predicators necessary for propositions in language. This is due to the fact that pictures can only be divided in a very limited way into autonomous sub-units that possibly allow for further division. A grammar of pictures, were there such a thing, is certainly no compositional grammar like, for instance, transformational-generative grammar. Moreover, there is no constant rule as to which functional role is assigned or should be assigned to a determined single picture element, whereas sentences normally indicate which part should be taken as nominator or predicator. Finally, with every functional division of a picture the question of internal syntactic structure arises, inasmuch as picture sections carrying meaning can be regarded as complete pictures in themselves.

The problem of separating the functional elements might possibly be evaded by presuming that the nominatory and predicatory functions are somehow blended. The identification of a particular object within a picture would then always bring into play as well the property that is to be assigned. In this case, we would not only use the picture to refer to a city but at the same time display the city's appearance visually, or, more precisely: we would refer to a particular city *by means of* putting on display certain visual properties. This idea exactly suggests a predicative picture theory, for the predicative function, the visual characterization of looking-so-and-so, prepares the basis for the nomination. Before I go on to explain this in more detail, we can state that the analogy of pictorial and verbal communication is appropriate insofar as overlapping aspects with regard to the functionality of both symbol systems can be pointed out; but the analogy no longer works once the manner comes into view by which these functions are realized. Hence, it is important for my approach to picture theory to describe the internal micro-functional structure of pictures in order to account for the peculiarities of the communicative use of pictures. This then provides at the same time an elaboration of predicative picture theory.

5. Predication as an elementary function of pictures

The central thesis of predicative picture theory is that pictures can be described in analogy to predicators, and accordingly do, in their elementary use, fulfill a predicative function. It is supposed here that such an elementary use of pictures – in analogy to elementary mathematical operations – can, firstly, not be reduced to other applications, and can, secondly, be proven to be constitutive for all other uses. The content of a picture is, by virtue of that thesis, a so-and-so-appearance (generated through the accentuation of particular visual properties of the picture vehicle). Accordingly, the production and/or the presentation of pictures in their elementary use is an act of visual characterization or illustration.

A predicative picture use of a more complex nature is already given when someone points out a photo of a wanted person accompanied by the words: 'The person we are looking for looks like *this*.' In this case, the expression '*this*' refers to the picture and thereby assumes a characterizing function within the communicative act. This function does not derive from the picture itself but from the contextual embedding. In contrast, the same photo of the wanted person would assume a nominatory function if it was connected to the following statement: 'This is the person unknown by name who is wanted for this and that offence'. In this second communicative context, the picture replaces the '*this*' and serves as the denotation of a particular person. The nominatory function that is performed

by means of the picture, however, nonetheless ensues via a visual characterization. The characterized properties are skillfully chosen in such a way that they are suitable for the denotation of an individual object in the respective context. The suitability of the characterization for the identification of a concrete object by no means changes the fact that the characterization itself appears in the sense of a denotation and may be understood as analogous to a predicate, in other words, to a general term.

The example of the mug shot is already a rather complex case, but still a special one. In order for the predicative picture theory to be plausible, it has to be made clear in what way it is supposed to be applicable to all cases of picture use. Initially, the central idea here is that no picture use can be found that dispenses with this predicative aspect. An additional theory would state that any picture use that is not primarily predicative necessarily depends on additional conditions external to the picture in question, usually through verbal additions or appropriate agreements or conventions.

To understand the predicative function as an elementary picture function therefore does not mean that picture communication only consists of illustration, but that more complex picture uses can also be derived from the predicative basic function. Here, four basic levels of complexity can be distinguished. On the elementary level – and thus, in analogy to a predicate – a picture merely illustrates properties. On this level, only the features of a concept that are deemed essential are brought into play: For instance, the concept of a parallelogram can be illustrated by means of four lines drawn accordingly. Thus, the elementary predicative picture function is basically reflexive of the concept: by means of illustration, the picture points us to specific aspects of the thematic concept. However, this happens in a very indirect manner, as merely the visual characterizations but not, at the same time, the thematic concepts are given. The latter have to be complemented cognitively. As elementary function, the predicative picture function is therefore an unsaturated form of utterance. Through it, we arrive at pictorial predicates only, but we are usually not consciously aware of this fact, as it involuntarily uses our cognitive system for classification and thus adds to it the relevant concept.

A more complexly layered case arises when visual properties are presented in such a way that the act of presentation serves as a visual pattern of certain classes of objects. This predicative application of pictures is made use of, for instance, in botanic classification books in which typical visual properties of a particular species of plant are illustrated in order to allow for a better detection and identification of concrete members of this species. Here, the nominatory partial aspect of the utterance is explicitly supplied, say, through a denotation such as “daffodil”. Thus, the predicative function of the picture is integrated into a complex act of utterance obtaining its nomination by the title of the picture.

On another, yet more complex level, a picture can also be employed to indicate that the illustration depicts a particular individual object that is meant to be made reference to or to be assigned particular properties. This can, like in the botanic classification book, ensue via an explicit nominator in the picture caption, or by means of choosing the visual properties displayed in the illustration in such a skillful way that the observer is involuntarily referred to an individual object. This second instance, which is principally prone to error (just think of two twins), not only illustrates particularly well the reason why I consider the nomination that comes into play here as a more complex process compared to the prior cases. It also demonstrates why visual predication should generally be regarded as more elementary than visual nomination: Nomination already presupposes, resp. entails, predication, since the reference to a concrete object arises here as a visual denotation and thus through the skillful combination of particular visual properties suitable, in this specific context, for the characterization of that individual object.

A final level of complexity is given when we exercise the various illocutionary functions by means of pictorial presentations. The presentation of a picture, for example, can be linked to an assertion or an appeal, i.e., it can generally convey an attitude towards an object. It must be assumed that the illocutionary role a picture should perform is not already determined by its picture-internal conditions,

even if suitable illocutionary markers suggest certain roles. Summarizing the central idea of predicative picture theory: since there is no equivalent to verbal proper names within the field of pictures, a nominatory function can only be realized by means of the predicative function as a visual equivalent of denotation. Accordingly, all complex picture applications depend on the predicative function and can be reconstructed in connection to the relevant picture-external conditions.

6. Semantic implications

My deliberations concerning predicative picture theory imply that the term 'picture meaning' may refer to some very different aspects: namely picture content, picture reference, symbolic meaning, and communicative meaning. In connection with these differentiations, which I shall only sketch out briefly, predicative picture theory allows for a description even of complex picture forms and picture uses.

The picture content is that which someone sees *within* the picture, not in the sense of a particular single object (which could be verbally identified by means of a nomination such as 'the Eiffel Tower'), but in the sense of a (possibly very complex) habitual distinction (which could be articulated by means of a predication, such as 'a great dark tower with four feet made from a dark material tapering upwards and...'). The picture content is processed via specific mechanisms of perception, especially those capabilities of differentiation that are activated in the process of perceiving the picture surface.

The picture content arises from the visual properties of the picture vehicle. However, it does not concur with the picture referent, nor does it presuppose such a thing, as fictional pictures demonstrate. The reference of a picture is principally unsure because different objects can, given certain perspectives, evoke the same perceptive impression. At most, the picture content conveys a necessary condition for the determination of the reference; by no means a sufficient one. Thus, picture reference is always a function determined contextually.

A third important phenomenon of meaning is symbolic meaning, which is assigned to a picture or a pictorial element by mediation of the content. The symbolic meaning is what a picture 'alludes' to or what it symbolizes. This kind of meaning, sometimes also referred to as 'connotation', is a frequent object of iconographic analysis. An understanding of the symbolic meaning (e.g., 'transiency') presupposes the determination of the picture content (e.g., 'being a bug'). Moreover, it demands considerable knowledge of the respective social and cultural context of production. Thus, the symbolic meaning by no means becomes apparent in a picture all by itself.

From the three phenomena of meaning named above – content, reference and symbolic meaning – the communicative meaning of a picture must be distinguished. The communicative meaning of a picture consists of the 'message' the picture is meant to convey, or, to put it differently, that which the use of the picture aims at. In speech act theory, the analogous linguistic phenomenon is referred to as 'utterance meaning'. Though the picture content does provide a necessary premise to make the communicative meaning of the presentation of a picture accessible, it is, as a rule, not sufficient in this case either. That fact derives from the predicative understanding of the picture inasmuch as the picture content provides a visual characterization, whereas the determination of the communicative meaning requires a complete propositional structure. In order to arrive at this structure, a contextual specification of the picture reference is necessary. Moreover, the illocutionary picture function referring to the propositional structure of the picture must first be determined.

The relation between the different aspects of meaning, tension-filled as it might be occasionally, is, in my assessment, responsible for the ambivalence of pictures. One may even speak of a semantic anomaly of pictures: compared to a verbal utterance, the meaning of a picture is at the same time more clearly determined and more indeterminate. It is more clearly determined inasmuch as we

can evoke by means of pictures the impression of a scene (the perceptively conveyed content) with great immediacy. It is, however, more indeterminate at the same time inasmuch as in picture use (1) the factual nature of a real scene is not guaranteed (only perceptual realism is given), and (2) the communicative meaning often remains vague. The ambivalence thus ensues from the different processing mechanisms for the picture content (determined syntactically / perceptually) and the picture message (determined pragmatically / contextually).

7. On the scientific status of verbal descriptions of pictures

In conclusion, I would like to address the relation between picture and language (on this topic, also cf. Schirra & Sachs-Hombach 2007 & Schirra & Sachs-Hombach 2013). What in scientific analysis is special about that relationship? In search of an answer, it is helpful to differentiate between the different levels of object, description, and theory. In the case of image science, single concrete pictures make up the object area. These objects of consideration must first of all be perceived. Precisely speaking, every picture is necessarily constituted in a respective situation of reception only. For scientific analysis, it is furthermore necessary to make the perceived pictures available in an intersubjectively conveyable manner. On the elementary level, this is achieved by means of a description that captures the relevant (especially visual) properties of the picture. Of course it is in principle impossible in this area already to capture all the properties, because every object possesses an infinite number of properties. This is a general problem concerning all sciences, which must necessarily limit themselves to a finite number of relevant properties: The descriptive quality of a theory decisively depends on the degree to which it can capture or has captured phenomenal properties causally relevant in the respective research context.

The numerous questions concerning the evaluation of scientific description have been intensely discussed in the history of scientific theory under the heading of 'protocol statements', leading to the widely acknowledged result that every description can be regarded as charged or led by theory. Thus, the inductionist *understanding* of science, which assumed that it has a secure foundation in observations and descriptions, lost its base: since every description presupposes concepts that are themselves connected again to theoretical contexts, description and theory depend on each other. Even the most neutral phenomenal description therefore is never without condition. Accordingly, descriptions are reliable only to a limited degree, they are not suitable for the concluding confirmation of our theories. As a result of this, among other things, all empirical-scientifically formulated laws were assigned the status of hypotheses. This loss of certainty, however, has rather promoted the 'progress' of science than hindered it, since it has forced an intense occupation with scientific processes and claims to validity.

As a rule, science consists of the attempt to not only describe the observed circumstances but to find regularities between them and to formulate these as precisely as possible. Just as every other science, image science conveys theory and description via the conceptual instruments that, on the one hand, delimit and structure the object area. On the other, however, those instruments are embedded in theoretical contexts, as the explanation of a basic concept is always understandable only relative to its theoretical embedding: The making explicit of a concept is essentially the explanation of the position and the function that this concept possesses within a theory.

The conceptual-theoretical area, as a rule, receives most attention, also from cross-disciplinary perspectives. It is connected to intense discussions, which – not uncommonly – are ideologically charged. The question which theory is adequate for a particular object area can, according to the above deliberations, surely be decided not only on the basis of mere descriptions, as descriptions always already contain theoretical assumptions and a respective justification thus becomes circular. An appropriate theory should of

course not contradict the descriptions and, moreover, contribute to a better understanding of them. As a rule, however, competing theories are able to achieve this in any case if they lean on their own respective (theory-guided) description basis. As long as it remains impossible to purposefully bring about a decision by means of experiments, the fruitfulness of a theory has then to be adduced as a criterion for evaluating the theories. Thus, competing theories cannot easily be proven wrong. Not uncommonly, competing theories do also capture single aspects of a phenomenon quite correctly, so that the essential task occasionally consists of appropriately delimiting the application areas of the theories in order to be able to relate them to each other in a rational way.

What meaning do these relatively general science-theoretical notes hold for the question of the relation between picture and language? As far as that question comes up in the light of picture-scientific research, it implies primarily that the verbal description of pictures by no means excludes their being captured *as pictures* appropriately. On the contrary, the ability to describe them in detail provides the prerequisite for the latter. Any accusation that we are not able to capture supposed essentials in “merely” describing a picture are irrelevant inasmuch as we principally do not possess any other possibility of scientifically accessing those essentials either. Verbally capturing, i.e. describing, pictures is thus an indispensable presupposition for scientifically understanding them. Moreover, I suspect that it is not in principle impossible to translate the various meanings of a picture into a verbal description, although this description would not, of course, have the same effects as the picture.

The relation of picture and language indeed becomes problematic, however, if we have incorrectly or insufficiently observed and/or described important properties. But what helps here is, as with all sciences, only the improvement of our observation process and our verbal means of articulation. The decisive question therefore should not be whether pictures can be translated appropriately into language, but rather what the criteria are exactly for an appropriate verbal description of phenomena. Since the criteria, however, are dependent again on the conceptual-theoretical condition, the evaluation of whether a description is adequate always ensues relative to the picture theory applied. Thus, our scientific engagement with pictures is in principal characterized by preliminaries. We therefore should not so much strive for the exclusion of competing theories but should rather look for sensible ways to connect them.

An appropriate description of the picture phenomenon must be distinguished from a complete description. It must further be distinguished whether a description is impossible in principle or impossible only at the moment due to currently insufficient verbal means. As far as we are considering the status of an *image science*, a complete verbal description is certainly neither possible nor required. Besides, it would be a misunderstanding to conclude from the possibility of verbal translation that the picture becomes replaceable or superfluous. Such a conclusion fails to recognize that the use of pictures is a very complex process, which is, for instance, also about specific atmospheric qualities linked to perception that are important especially for aesthetic phenomena. Although the atmospheric qualities can be characterized verbally as well, the respective descriptions of course no longer possess the emotionally enhanced immediacy of perceptive impressions. The scientific descriptions and the regularities formulated with their help are therefore not competing with the immediate experience of the phenomenon, but are meant to provide an explanation of them. A verbal description of pictures is in any case indispensable for scientific analysis. Without appropriate descriptions, there can be no image science. Descriptions, however, are always guided by a theory. Whenever there is an argument concerning the appropriateness of a certain description, an evaluation and a comparison of the underlying theories are under consideration as well.

NOTES

1. This article entails various ideas and whole passages already published in one of my earlier publications. See in particular Sachs-Hombach 2003, Sachs-Hombach 2011, Sachs-Hombach & Win-

- ter 2013, Schirra & Sachs-Hombach 2007. I would in particular like to thank Jörg R. J. Schirra with whom I discussed most aspects of the article and partly developed them together.
2. Pictures of art are naturally a special and very complex case. In the following, I will not discuss the artistic features of pictures.
 3. Thus, signs close to perception can be found in any mode of sense, not just the visual sense. Correspondingly, the expression 'picture' may be extended in that direction to include auditory pictures or olfactory pictures, though not in this article.

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Klaus Sachs-Hombach holds a chair for media science (emphasis on media change and media innovation) at the University of Tübingen. He co-founded the internet platform Virtual Institute for Image Science (VIB), the online journal IMAGE. Journal for Interdisciplinary Image Science, and the Society for Interdisciplinary Image Science (GIB) (see www.bildwissenschaft.org). His publications include *Das Bild als kommunikatives Medium. Elemente einer allgemeinen Bildwissenschaft* [Image Studies: Elements of a general image science] (von Halem 2003); (as editor): *Bildtheorien. Anthropologische und kulturelle Grundlagen des visualistic turn* [Picture theories: Anthropological and cultural foundations of the visualistic turn] (Suhrkamp 2009); (as editor with Jörg R. J. Schirra): *Origins of Pictures* (von Halem 2013); (as editor with Jan-Noël Thon): *Game Studies: Aktuelle Ansätze der Computerspielforschung* [Game Studies: Current Approaches to Video Game Studies] (von Halem 2015).