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PREFACE

The lines of thought that joined my interest in the arts with my inquiries into the theory of knowledge began to emerge some ten years ago. An invitation a couple of years later to give the John Locke Lectures at Oxford in 1962 led to the organization of accumulated material into six lectures. These formed the basis for the present much revised and expanded chapters.

My indebtedness to institutions and individuals is uncomfortably high in relation to the results. A year at the Center for Cognitive Studies at Harvard University and subsequent support by the National Science Foundation (under grant GS 978) and the Old Dominion Foundation made possible a wider and more detailed investigation than could otherwise have been undertaken. As a philosopher squarely in the Socratic tradition of knowing nothing, I have depended upon experts and practitioners in fields where my study has had to intrude. Among these are:—in psychology, Paul A. Kolers; in linguistics, S. Jay Keyser; in the visual arts, Meyer Schapiro and Katharine Sturgis; in music, George Rochberg, Harold Shapero, and Joyce Mekeel; in dance and dance notation, Ina Hahn, Ann Hutchinson Guest, and Lucy Venable.

I have also profited from discussions with my graduate students and with philosophers and others at the University of Pennsylvania, Oxford, Harvard, Princeton, Cornell, and other universities where versions of some of these chapters have been given as lectures. Finally, such virtues and faults

PREFACE

as the book may have are in part due to the help of my research assistants, especially Robert Schwartz, Marsha Hanen, and Hoyt Hobbs. Much of the proofreading and the indexing has been done by Lynn Foster and Geoffrey Hellman.

Harvard University

Second Edition

This edition incorporates some important if not extensive changes. The definition of *density throughout* (IV, 2; IV, 5) is strengthened to preclude gaps that were inadvertently admissible under the earlier version. Suggestions by A. J. Ayer and Hilary Putnam helped here. The property of being representational (VI, 1) is now defined for symbol systems rather than symbol schemes. And incidentally, the reader may be as relieved as the author that some rewording (VI, 5), without change in theory, has banished the polysyllabic monstrosity: "exemplificationality".

1976

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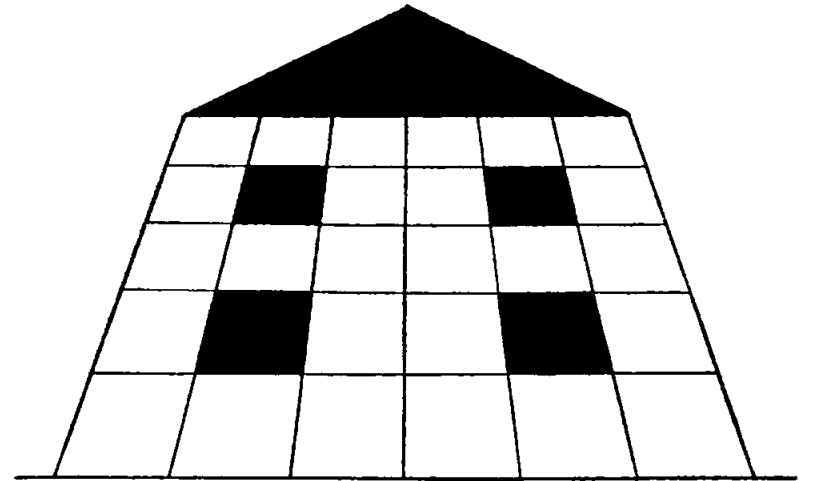
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Reverse

Drawing from Paul Klee's *Pädagogisches Skizzenbuch* (Munich, 1925; 2nd American edition, New York, Frederick A. Praeger, Inc., 1953), p. 41; reproduced here by permission of the publishers.

I

REALITY REMADE

*Art is not a copy of the real world. One of the damn things is enough.**

1. Denotation

Whether a picture ought to be a representation or not is a question much less crucial than might appear from current bitter battles among artists, critics, and propagandists. Nevertheless, the nature of representation wants early study in any philosophical examination of the ways symbols function in and out of the arts. That representation is frequent in some arts, such as painting, and infrequent in others, such as music, threatens trouble for a unified aesthetics; and confusion over how pictorial representation as a mode of signification is allied to and distinguished from verbal description on the one hand and, say, facial expression on the other is fatal to any general theory of symbols.

The most naive view of representation might perhaps be put somewhat like this: "A represents B if and only if A appreciably resembles B", or "A represents B to the extent that A resembles B". Vestiges of this view, with assorted refinements, persist in most writing on representation. Yet

* Reported as occurring in an essay on Virginia Woolf. I have been unable to locate the source.

more error could hardly be compressed into so short a formula.

Some of the faults are obvious enough. An object resembles itself to the maximum degree but rarely represents itself; resemblance, unlike representation, is reflexive. Again, unlike representation, resemblance is symmetric: *B* is as much like *A* as *A* is like *B*, but while a painting may represent the Duke of Wellington, the Duke doesn't represent the painting. Furthermore, in many cases neither one of a pair of very like objects represents the other: none of the automobiles off an assembly line is a picture of any of the rest; and a man is not normally a representation of another man, even his twin brother. Plainly, resemblance in any degree is no sufficient condition for representation.¹

Just what correction to make in the formula is not so obvious. We may attempt less, and prefix the condition "If *A* is a picture, . . .". Of course, if we then construe "picture" as "representation", we resign a large part of the question: namely, what constitutes a representation. But

¹ What I am considering here is pictorial representation, or depiction, and the comparable representation that may occur in other arts. Natural objects may represent in the same way: witness the man in the moon and the sheep-dog in the clouds. Some writers use "representation" as the general term for all varieties of what I call symbolization or reference, and use "symbolic" for the verbal and other nonpictorial signs I call nonrepresentational. "Represent" and its derivatives have many other uses, and while I shall mention some of these later, others do not concern us here at all. Among the latter, for example, are the uses according to which an ambassador represents a nation and makes representations to a foreign government.

even if we construe "picture" broadly enough to cover all paintings, the formula is wide of the mark in other ways. A Constable painting of Marlborough Castle is more like any other picture than it is like the Castle, yet it represents the Castle and not another picture—not even the closest copy. To add the requirement that *B* must not be a picture would be desperate and futile; for a picture may represent another, and indeed each of the once popular paintings of art galleries represents many others.

The plain fact is that a picture, to represent an object,² must be a symbol for it, stand for it, refer to it; and that no degree of resemblance is sufficient to establish the requisite relationship of reference. Nor is resemblance necessary for reference; almost anything may stand for almost anything else. A picture that represents—like a passage that describes—an object refers to and, more particularly, *denotes* it. Denotation is the core of representation and is independent of resemblance.

If the relation between a picture and what it represents is thus assimilated to the relation between a predicate and what it applies to, we must examine the characteristics of representation as a special kind of denotation. What does pictorial denotation have in common with, and how does it differ from, verbal or diagrammatic denotation? One not implausible answer is that resemblance, while no suffi-

² I use "object" indifferently for anything a picture represents, whether an apple or a battle. A quirk of language makes a represented object a subject.

³ Not until the next chapter will denotation be distinguished from other varieties of reference.

cient condition for representation, is just the feature that distinguishes representation from denotation of other kinds. Is it perhaps the case that if *A* denotes *B*, then *A* represents *B* just to the extent that *A* resembles *B*? I think even this watered-down and innocuous-looking version of our initial formula betrays a grave misconception of the nature of representation.

2. Imitation

"To make a faithful picture, come as close as possible to copying the object just as it is." This simple-minded injunction baffles me; for the object before me is a man, a swarm of atoms, a complex of cells, a fiddler, a friend, a fool, and much more. If none of these constitute the object as it is, what else might? If all are ways the object is, then none is *the* way the object is.⁴ I cannot copy all these

⁴ In "The Way the World Is", *Review of Metaphysics*, vol. 14 (1960), pp. 48-56, I have argued that the world is as many ways as it can be truly described, seen, pictured, etc., and that there is no such thing as *the* way the world is. Ryle takes a somewhat similar position (*Dilemmas* [Cambridge, England, Cambridge University Press, 1954], pp. 75-77) in comparing the relation between a table as a perceived solid object and the table as a swarm of atoms with the relation between a college library according to the catalogue and according to the accountant. Some have proposed that the way the world is could be arrived at by conjoining all the several ways. This overlooks the fact that conjunction itself is peculiar to certain systems; for example, we cannot conjoin a paragraph and a picture. And any attempted combination of all the ways would be itself only one—and a peculiarly indigestible one—of the ways the world is. But what is *the* world that is in so many ways? To speak of ways the world is, or ways of describing or picturing the world, is to speak of world-descriptions or world-pictures, and does not imply there is a unique thing—or indeed

at once; and the more nearly I succeeded, the less would the result be a realistic picture.

What I am to copy then, it seems, is one such aspect, one of the ways the object is or looks. But not, of course, any one of these at random—not, for example, the Duke of Wellington as he looks to a drunk through a raindrop. Rather, we may suppose, the way the object looks to the normal eye, at proper range, from a favorable angle, in good light, without instrumentation, unprejudiced by affections or animosities or interests, and unembellished by thought or interpretation. In short, the object is to be copied as seen under aseptic conditions by the free and innocent eye.

The catch here, as Ernst Gombrich insists, is that there is no innocent eye.⁵ The eye comes always ancient to its work, obsessed by its own past and by old and new insinuations of the ear, nose, tongue, fingers, heart, and brain. It functions not as an instrument self-powered and alone, but as a dutiful member of a complex and capricious organism. Not only how but what it sees is regulated by need and prejudice.⁶ It selects, rejects, organizes, discriminates, as-

anything—that is described or pictured. Of course, none of this implies, either, that nothing is described or pictured. See further section 5 and note 19 below.

⁵ In *Art and Illusion* (New York, Pantheon Books, 1960), pp. 297-298 and elsewhere. On the general matter of the relativity of vision, see also such works as R. L. Gregory, *Eye and Brain* (New York, McGraw-Hill Book Co., 1966), and Marshall H. Segall, Donald Campbell, and Melville J. Herskovits, *The Influence of Culture on Visual Perception* (Indianapolis and New York, The Bobbs-Merrill Co., Inc., 1966).

⁶ For samples of psychological investigation of this point, see Jerome S. Bruner's "On Perceptual Readiness", *Psychological Review*, vol. 64 (1957), pp. 123-152, and other articles there cited; also William P.

sociates, classifies, analyzes, constructs. It does not so much mirror as take and make; and what it takes and makes it sees not bare, as items without attributes, but as things, as food, as people, as enemies, as stars, as weapons. Nothing is seen nakedly or naked.

The myths of the innocent eye and of the absolute given are unholy accomplices. Both derive from and foster the idea of knowing as a processing of raw material received from the senses, and of this raw material as being discoverable either through purification rites or by methodical disinterpretation. But reception and interpretation are not separable operations; they are thoroughly interdependent. The Kantian dictum echoes here: the innocent eye is blind and the virgin mind empty. Moreover, what has been received and what has been done to it cannot be distinguished within the finished product. Content cannot be extracted by peeling off layers of comment.⁷

All the same, an artist may often do well to strive for innocence of eye. The effort sometimes rescues him from the tired patterns of everyday seeing, and results in fresh insight. The opposite effort, to give fullest rein to a personal reading, can be equally tonic—and for the same rea-

Brown, "Conceptions of Perceptual Defense", *British Journal of Psychology Monograph Supplement XXXV* (Cambridge, England, Cambridge University Press, 1961).

⁷ On the emptiness of the notion of epistemological primacy and the futility of the search for the absolute given, see my *Structure of Appearance* (2nd edition; Indianapolis and New York, The Bobbs-Merrill Co., Inc., 1966—hereinafter referred to as SA), pp. 132-145, and "Sense and Certainty", *Philosophical Review*, vol. 61 (1952), pp. 160-167.

son. But the most neutral eye and the most biased are merely sophisticated in different ways. The most ascetic vision and the most prodigal, like the sober portrait and the vitriolic caricature, differ not in *how much* but only in *how* they interpret.

The copy theory of representation, then, is stopped at the start by inability to specify what is to be copied. Not an object the way it is, nor all the ways it is, nor the way it looks to the mindless eye. Moreover, something is wrong with the very notion of copying any of the ways an object is, any aspect of it. For an aspect is not just the object-from-a-given-distance-and-angle-and-in-a-given-light; it is the object as we look upon or conceive it, a version or construal of the object. In representing an object, we do not copy such a construal or interpretation—we *achieve* it.⁸

In other words, nothing is ever represented either shorn of or in the fullness of its properties. A picture never merely represents *x*, but rather represents *x* as a man or represents *x* to be a mountain, or represents *the fact that x* is a melon. What could be meant by copying a fact would be hard to grasp even if there were any such things as facts; to ask me to copy *x* as a soandso is a little like asking me to sell something as a gift; and to speak of copying something to be a man is sheer nonsense. We shall presently have to look further into all this; but we hardly need

⁸ And this is no less true when the instrument we use is a camera rather than a pen or brush. The choice and handling of the instrument participate in the construal. A photographer's work, like a painter's can evince a personal style. Concerning the 'corrections' provided for in some cameras, see section 3 below.

look further to see how little is representation a matter of imitation.

The case for the relativity of vision and of representation has been so conclusively stated elsewhere that I am relieved of the need to argue it at any length here. Gombrich, in particular, has amassed overwhelming evidence to show how the way we see and depict depends upon and varies with experience, practice, interests, and attitudes. But on one matter Gombrich and others sometimes seem to me to take a position at odds with such relativity; and I must therefore discuss briefly the question of the conventionality of perspective.

3. Perspective

An artist may choose his means of rendering motion, intensity of light, quality of atmosphere, vibrancy of color, but if he wants to represent space correctly, he must—almost anyone will tell him—obey the laws of perspective. The adoption of perspective during the Renaissance is widely accepted as a long stride forward in realistic depiction. The laws of perspective are supposed to provide absolute standards of fidelity that override differences in style of seeing and picturing. Gombrich derides “the idea that perspective is merely a convention and does not represent the world as it looks”, and he declares “One cannot insist enough that the art of perspective aims at a correct equation: It wants the image to appear like the object and the object like the image.”⁹ And James J. Gib-

⁹ *Art and Illusion*, pp. 254 and 257.

son writes: “. . . it does not seem reasonable to assert that the use of perspective in paintings is merely a convention, to be used or discarded by the painter as he chooses. . . . When the artist transcribes what he sees upon a two-dimensional surface, he uses perspective geometry, of necessity.”¹⁰

Obviously the laws of the behavior of light are no more conventional than any other scientific laws. Now suppose we have a motionless, monochromatic object, reflecting light of medium intensity only. The argument runs¹¹:—A picture drawn in correct perspective will, under specified conditions, deliver to the eye a bundle of light rays matching that delivered by the object itself. This matching is a purely objective matter, measurable by instruments. And such matching constitutes fidelity of representation; for since light rays are all that the eye can receive from either picture or object, identity in pattern of light rays must constitute identity of appearance. Of course, the rays yielded by the picture under the specified conditions match not only those yielded by the object in question from a given distance and angle but also those yielded by

¹⁰ From “Pictures, Perspective, and Perception”, *Daedalus* (Winter 1960), p. 227. Gibson does not appear to have explicitly retracted these statements, though his interesting recent book, *The Senses Considered as Perceptual Systems* (Boston, Houghton Mifflin Co., 1966), deals at length with related problems.

¹¹ Substantially this argument has, of course, been advanced by many other writers. For an interesting discussion see D. Gioseffi, *Prospettiva Artificiale* (Trieste, Università degli studi di Trieste, Istituto di Storia dell'Arte Antica e Moderna, 1957), and a long review of the same by M. H. Pirenne in *The Art Bulletin*, vol. 41 (1959), pp. 213–217. I am indebted to Professor Meyer Schapiro for this reference.

any of a multitude of other objects from other distances and angles.¹² Identity in pattern of light rays, like resemblance of other kinds, is clearly no sufficient condition for representation. The claim is rather that such identity is a criterion of fidelity, of correct pictorial representation, where denotation is otherwise established.

If at first glance the argument as stated seems simple and persuasive, it becomes less so when we consider the conditions of observation that are prescribed. The picture must be viewed through a peephole, face on, from a certain distance, with one eye closed and the other motionless. The object also must be observed through a peephole, from a given (but not usually the same) angle and distance, and with a single unmoving eye. Otherwise, the light rays will not match.

Under these remarkable conditions, do we not have ultimately faithful representation? Hardly. Under these conditions, what we are looking at tends to disappear rather promptly. Experiment has shown that the eye cannot see normally without moving relative to what it sees¹³; apparently, scanning is necessary for normal vision. The

¹² Cf. Gombrich's discussion of 'gates' in *Art and Illusion*, pp. 250-251.

¹³ See L. A. Riggs, F. Ratliff, J. C. Cornsweet, and T. Cornsweet, "The Disappearance of Steadily Fixated Visual Objects", *Journal of the Optical Society of America*, vol. 43 (1953), pp. 495-501. More recently, the drastic and rapid changes in perception that occur during fixation have been investigated in detail by R. M. Pritchard, W. Heron, and D. O. Hebb in "Visual Perception Approached by the Method of Stabilized Images", *Canadian Journal of Psychology*, vol. 14 (1960), pp. 67-77. According to this article, the image tends to regenerate, sometimes transformed into meaningful units not initially present.

fixed eye is almost as blind as the innocent one. What can the matching of light rays delivered under conditions that make normal vision impossible have to do with fidelity of representation? To measure fidelity in terms of rays directed at a closed eye would be no more absurd. But this objection need not be stressed; perhaps enough eye motion could be allowed for scanning but not for seeing around the object.¹⁴ The basic trouble is that the specified conditions of observation are grossly abnormal. What can be the grounds for taking the matching of light rays delivered under such extraordinary conditions as a measure of fidelity? Under no more artificial conditions, such as the interposition of suitably contrived lenses, a picture far out of perspective could also be made to yield the same pattern of light rays as the object. That with clever enough stage-managing we can wring out of a picture drawn in perspective light rays that match those we can wring out of the object represented is an odd and futile argument for the fidelity of perspective.

Furthermore, the conditions of observation in question are in most cases not the same for picture and object. Both are to be viewed through a peephole with one transfixed eye; but the picture is to be viewed face on at a distance of six feet while the cathedral represented has to be looked at from, say, an angle of 45° to its façade and at a distance of two hundred feet. Now not only the light rays received but also the attendant conditions determine what and how

¹⁴ But note that owing to the protuberance of the cornea, the eye when rotated, even with the head fixed, can often see slightly around the sides of an object.

we see; as psychologists are fond of saying, there is more to vision than meets the eye. Just as a red light says "stop" on the highway and "port" at sea, so the same stimulus gives rise to different visual experience under different circumstances. Even where both the light rays and the momentary external conditions are the same, the preceding train of visual experience, together with information gathered from all sources, can make a vast difference in what is seen. If not even the former conditions are the same, duplication of light rays is no more likely to result in identical perception than is duplication of the conditions if the light rays differ.

Pictures are normally viewed framed against a background by a person free to walk about and to move his eyes. To paint a picture that will under these conditions deliver the same light rays as the object, viewed under any conditions, would be pointless even if it were possible. Rather, the artist's task in representing an object before him is to decide what light rays, under gallery conditions, will succeed in rendering what he sees. This is not a matter of copying but of conveying. It is more a matter of 'catching a likeness' than of duplicating—in the sense that a likeness lost in a photograph may be caught in a caricature. Translation of a sort, compensating for differences in circumstances, is involved. How this is best carried out depends upon countless and variable factors, not least among them the particular habits of seeing and representing that are ingrained in the viewers. Pictures in perspective, like any others, have to be read; and the ability to read has to be acquired. The eye accustomed solely to Oriental painting does not immediately understand a pic-

ture in perspective. Yet with practice one can accommodate smoothly to distorting spectacles or to pictures drawn in warped or even reversed perspective.¹⁵ And even we who are most inured to perspective rendering do not always accept it as faithful representation: the photograph of a man with his feet thrust forward looks distorted, and Pike's Peak dwindles dismally in a snapshot. As the saying goes, there is nothing like a camera to make a molehill out of a mountain.

So far, I have been playing along with the idea that pictorial perspective obeys laws of geometrical optics, and

¹⁵ Adaptation to spectacles of various kinds has been the subject of extensive experimentation. See, for example, J. E. Hochberg, "Effects of Gestalt Revolution: The Cornell Symposium on Perception", *Psychological Review*, vol. 64 (1959), pp. 74-75; J. G. Taylor, *The Behavioral Basis of Perception* (New Haven, Yale University Press, 1962), pp. 166-185; and Irvin Rock, *The Nature of Perceptual Adaptation* (New York, Basic Books, Inc., 1966). Anyone can readily verify for himself how easy it is to learn to read pictures drawn in reversed or otherwise transformed perspective. Reversed perspective often occurs in Oriental, Byzantine, and mediaeval art; sometimes standard and reversed perspective are even used in different parts of one picture—see, for example, Leonid Ouspensky and Vladimir Lossky, *The Meaning of Icons* (Boston, Boston Book and Art Shop, 1952), p. 42 (note 1), p. 200. Concerning the fact that one has to learn to read pictures in standard perspective, Melville J. Herskovits writes in *Man and His Works* (New York, Alfred A. Knopf, 1948), p. 381: "More than one ethnographer has reported the experience of showing a clear photograph of a house, a person, a familiar landscape to people living in a culture innocent of any knowledge of photography, and to have the picture held at all possible angles, or turned over for an inspection of its blank back, as the native tried to interpret this meaningless arrangement of varying shades of grey on a piece of paper. For even the clearest photograph is only an interpretation of what the camera sees."

that a picture drawn according to the standard pictorial rules will, under the very abnormal conditions outlined above, deliver a bundle of light rays matching that delivered by the scene portrayed. Only this assumption gives any plausibility at all to the argument from perspective; but the assumption is plainly false. By the pictorial rules, railroad tracks running outward from the eye are drawn converging, but telephone poles (or the edges of a façade) running upward from the eye are drawn parallel. By the 'laws of geometry' the poles should also be drawn converging. But so drawn, they look as wrong as railroad tracks drawn parallel. Thus we have cameras with tilting backs and elevating lens-boards to 'correct distortion'—that is, to make vertical parallels come out parallel in our photographs; we do not likewise try to make the railroad tracks come out parallel. The rules of pictorial perspective no more follow from the laws of optics than would rules calling for drawing the tracks parallel and the poles converging. In diametric contradiction to what Gibson says, the artist who wants to produce a spatial representation that the present-day Western eye will accept as faithful must defy the 'laws of geometry'.

If all this seems quite evident, and neatly clinched by Klee,¹⁶ there is nevertheless impressive weight of authority on the other side,¹⁷ relying on the argument that

¹⁶ See the frontispiece to this chapter. As Klee remarks, the drawing looks quite normal if taken as representing a floor but awry as representing a façade, even though in the two cases parallels in the object represented recede equally from the eye.

¹⁷ Indeed, this is the orthodox position, taken not only by Pirenne, Gibson, and Gombrich, but by most writers on the subject. Some

all parallels in the plane of the façade project geometrically as parallels onto the parallel plane of the picture. The source of unending debate over perspective seems to lie in confusion concerning the pertinent conditions of observation. In Figure 1, an observer is on ground level with eye at *a*; at *b,c* is the façade of a tower atop a building; at *d,e* is a picture of the tower façade, drawn in standard perspective and to a scale such that at the indicated distances picture and façade subtend equal angles from *a*. The normal line of vision to the tower is the line *a,f*; looking much higher or lower will leave part of the tower façade out of sight or blurred. Likewise, the normal line of vision to the picture is *a,g*. Now although picture and façade are parallel, the line *a,g* is perpendicular to the picture, so that vertical parallels in the picture will be projected to the eye as parallel, while the line *a,f* is at an angle to the façade so that vertical parallels there will be projected to the eye as converging upward. We might try to make picture and façade deliver matching bundles of light rays to the eye by either (1) moving the picture upward to the position *h,i*, or (2) tilting it to the position *j,k*, or (3) looking at the picture from *a* but at the tower from *m*, some stories up.

exceptions, besides Klee, are Erwin Panofsky, "Die Perspektive als 'Symbolische Form'", *Vorträge der Bibliothek Warburg* (1924–1925), pp. 258ff; Rudolf Arnheim, *Art and Visual Perception* (Berkeley, University of California Press, 1954), e.g., pp. 92ff, 226ff, and elsewhere; and in an earlier day, one Arthur Parsey, who was taken to task for his heterodox views by Augustus de Morgan in *Budget of Paradoxes* (London, 1872), pp. 176–177. I am indebted to Mr. P. T. Geach for this last reference. Interesting discussions of perspective will be found in *The Birth and Rebirth of Pictorial Space*, by John White (New York, Thomas Yoseloff, 1958), Chapters VIII and XIII.

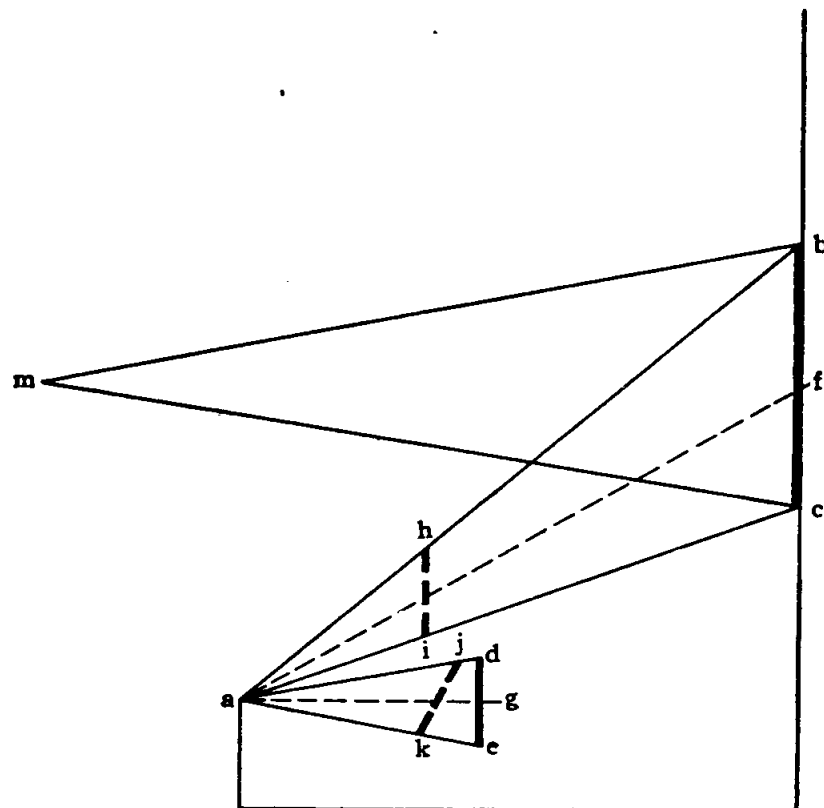


Figure 1

In the first two cases, since the picture must be also nearer the eye to subtend the same angle, the scale will be wrong for lateral (left-right) dimensions. What is more important, none of these three conditions of observation is anywhere near normal. We do not usually hang pictures far above eye level, or tilt them drastically bottom toward us, or elevate ourselves at will to look squarely at towers.¹⁸ With eye and picture in normal position, the bundle of light rays delivered to the eye by the picture drawn in standard perspective is very different from the bundle delivered by the facade.

This argument by itself is conclusive, but my case does not rest upon it. The more fundamental arguments advanced earlier would apply with full force even had the choice of official rules of perspective been less whimsical and called for drawing as convergent all parallels receding in any direction. Briefly, the behavior of light sanctions neither our usual nor any other way of rendering space; and perspective provides no absolute or independent standard of fidelity.

4. Sculpture

The troubles with the copy theory are sometimes attributed solely to the impossibility of depicting reality-in-the-round on a flat surface. But imitation is no better

¹⁸ The optimal way of seeing the tower facade may be by looking straight at it from *m*; but then the optimal way of seeing the railroad tracks would be by looking down on them from directly above the midpoint of their length.

gauge of realism in sculpture than in painting. What is to be portrayed in a bronze bust is a mobile, many-faceted, and fluctuating person, encountered in ever changing light and against miscellaneous backgrounds. Duplicating the form of the head at a given instant is unlikely to yield a notably faithful representation. The very fixation of such a momentary phase embalms the person much as a photograph taken at too short an exposure freezes a fountain or stops a racehorse. To portray faithfully is to convey a person known and distilled from a variety of experiences. This elusive conceit is nothing that one can meaningfully try to duplicate or imitate in a static bronze on a pedestal in a museum. The sculptor undertakes, rather, a subtle and intricate problem of translation.

Even where the object represented is something simpler and more stable than a person, duplication seldom coincides with realistic representation. If in a tympanum over a tall Gothic portal, Eve's apple were the same size as a Wine-sap, it would not look big enough to tempt Adam. The distant or colossal sculpture has also to be *shaped* very differently from what it depicts in order to be realistic, in order to 'look right'. And the ways of making it 'look right' are not reducible to fixed and universal rules; for how an object looks depends not only upon its orientation, distance, and lighting, but upon all we know of it and upon our training, habits, and concerns.

One need hardly go further to see that the basic case against imitation as a test of realism is conclusive for sculpture as well as for painting.

5. Fictions

So far, I have been considering only the representation of a particular person or group of thing or scene; but a picture, like a predicate, may denote severally the members of a given class. A picture accompanying a definition in a dictionary is often such a representation, not denoting uniquely some one eagle, say, or collectively the class of eagles, but distributively eagles in general.

Other representations have neither unique nor multiple denotation. What, for example, do pictures of Pickwick or of a unicorn represent? They do not represent anything; they are representations with null denotation. Yet how can we say that a picture represents Pickwick, or a unicorn, and also say that it does not represent anything? Since there is no Pickwick and no unicorn, what a picture of Pickwick and a picture of a unicorn represent is the same. Yet surely to be a picture of Pickwick and to be a picture of a unicorn are not at all the same.

The simple fact is that much as most pieces of furniture are readily sorted out as desks, chairs, tables, etc., so most pictures are readily sorted out as pictures of Pickwick, of Pegasus, of a unicorn, etc., without reference to anything represented. What tends to mislead us is that such locutions as "picture of" and "represents" have the appearance of mannerly two-place predicates and can sometimes be so interpreted. But "picture of Pickwick" and "represents a unicorn" are better considered unbreakable one-place predicates, or class-terms, like "desk" and "table". We cannot reach inside any of these and quantify over parts of

them. From the fact that *P* is a picture of or represents a unicorn we cannot infer that there is something that *P* is a picture of or represents. Furthermore, a picture of Pickwick is a picture of a man, even though there is no man it represents. Saying that a picture represents a soandso is thus highly ambiguous as between saying what the picture denotes and saying what kind of picture it is. Some confusion can be avoided if in the latter case we speak rather of a 'Pickwick-representing-picture' or a 'unicorn-representing-picture' or a 'man-representing-picture' or, for short, of a 'Pickwick-picture' or 'unicorn-picture' or 'man-picture'. Obviously a picture cannot, barring equivocation, both represent Pickwick and represent nothing. But a picture may be of a certain kind—be a Pickwick-picture or a man-picture—without representing anything.¹⁹

¹⁹ The substance of this and the following two paragraphs is contained in my paper, "On Likeness of Meaning", *Analysis*, vol. 1 (1949), pp. 1-7, and discussed further in the sequel, "On Some Differences about Meaning", *Analysis*, vol. 13 (1953), pp. 90-96. See also the parallel treatment of the problem of statements 'about fictive entities' in "About", *Mind*, vol. 70 (1961), esp. pp. 18-22. In a series of papers from 1939 on (many of them reworked and republished in *From a Logical Point of View* [Cambridge, Mass., Harvard University Press, 1953]), W. V. Quine had sharpened the distinction between syncategorematic and other expressions, and had shown that careful observance of this distinction could dispel many philosophical problems.

I use the device of hyphenation (e.g., in "man-picture") as an aid in technical discourse only, not as a reform of everyday usage, where the context normally prevents confusion and where the impetus to fallacious existential inference is less compulsive, if not less consequential, than in philosophy. In what follows, "man-picture" will always be an abbreviation for the longer and more usual "picture representing a man", taken as an unbreakable one-place predicate that

The difference between a man-picture and a picture of a man has a close parallel in the difference between a man-description (or man-term) and a description of (or term for) a man. "Pickwick", "the Duke of Wellington", "the man who conquered Napoleon", "a man", "a fat man", "the man with three heads", are all man-descriptions, but not all describe a man. Some denote a particular man, some denote each of many men, and some denote nothing.²⁰ And although "Pickwick" and "the three-headed man" and "Pegasus" all have the same null extension, the second differs from the first in being, for example, a many-headed-man-description, while the last differs from the other two in being a winged-horse-description.

The way pictures and descriptions are thus classified into kinds, like most habitual ways of classifying, is far from sharp or stable, and resists codification. Borderlines shift and blur, new categories are always coming into prominence, and the canons of the classification are less clear than the practice. But this is only to say that we

need not apply to all or only to pictures that represent an actual man. The same general principle will govern use of all compounds of the form "—picture". Thus, for example, I shall not use "Churchill-picture" as an abbreviation for "picture painted by Churchill" or for "picture belonging to Churchill". Note, furthermore, that a square-picture is not necessarily a square picture but a square-representing-picture.

²⁰ Strictly, we should speak here of utterances and inscriptions; for different instances of the same term may differ in denotation. Indeed, classifying replicas together to constitute terms is only one, and a far from simple, way of classifying utterances and inscriptions into kinds. See further SA, pp. 359-363, and also Chapter IV below.

may have some trouble in telling whether certain pictures (in common parlance) 'represent a unicorn', or in setting forth rules for deciding in every case whether a picture is a man-picture. Exact and general conditions under which something is a soandso-picture or a soandso-description would indeed be hard to formulate. We can cite examples: Van Gogh's *Postman* is a man-picture; and in English, "a man" is a man-description. And we may note, for instance, that to be a soandso-picture is to be a soandso-picture as a whole, so that a picture containing or contained in a man-picture need not itself be a man-picture. But to attempt much more is to become engulfed in a notorious philosophical morass; and the frustrating, if fascinating, problems involved are no part of our present task. All that directly matters here, I repeat, is that pictures are indeed sorted with varying degrees of ease into man-pictures, unicorn-pictures, Pickwick-pictures, winged-horse-pictures, etc., just as pieces of furniture are sorted into desks, tables, chairs, etc. And this fact is unaffected by the difficulty, in either case, of framing definitions for the several classes or eliciting a general principle of classification.

The possible objection that we must first understand what a man or a unicorn is in order to know how to apply "man-picture" or "unicorn-picture" seems to me quite perverted. We can learn to apply "corn-cob pipe" or "stag-horn" without first understanding, or knowing how to apply, "corn" or "cob" or "corn-cob" or "pipe" or "stag" or "horn" as separate terms. And we can learn, on the basis of samples, to apply "unicorn-picture" not only without ever having seen any unicorns but without ever

having seen or heard the word "unicorn" before. Indeed, largely by learning what are unicorn-pictures and unicorn-descriptions do we come to understand the word "unicorn"; and our ability to recognize a stag-horn may help us to recognize a stag when we see one. We may begin to understand a term by learning how to apply either the term itself or some larger term containing it. Acquiring any of these skills may aid in acquiring, but does not imply possessing, any of the others. Understanding a term is not a precondition, and may often be a result, of learning how to apply the term and its compounds.²¹

Earlier I said that denotation is a necessary condition for representation, and then encountered representations without denotation. But the explanation is now clear. A picture must denote a man to represent him, but need not denote anything to be a man-representation. Incidentally, the copy theory of representation takes a further beating here; for where a representation does not represent anything there can be no question of resemblance to what it represents.

Use of such examples as Pickwick-pictures and unicorn-

²¹ To know how to apply all compounds of a term would entail knowing how to apply at least some compounds of all other terms in the language. We normally say we understand a term when we know reasonably well how to apply it and enough of its more usual compounds. If for a given "—picture" compound we are in doubt about how to apply it in a rather high percentage of cases, this is also true of the correlative "represents as a —" predicate. Of course, understanding a term is not exclusively a matter of knowing how to apply it and its compounds; such other factors enter as knowing what inferences can be drawn from and to statements containing the term.

pictures may suggest that representations with null denotation are comparatively rare. Quite the contrary; the world of pictures teems with anonymous fictional persons, places, and things. The man in Rembrandt's *Landscape with a Huntsman* is presumably no actual person; he is just the man in Rembrandt's etching. In other words, the etching represents no man but is simply a man-picture, and more particularly a the-man-in-Rembrandt's-*Landscape-with-a-Huntsman*-picture. And even if an actual man be depicted here, his identity matters as little as the artist's blood-type. Furthermore, the information needed to determine what if anything is denoted by a picture is not always accessible. We may, for example, be unable to tell whether a given representation is multiple, like an eagle-picture in the dictionary, or fictive, like a Pickwick-picture. But where we cannot determine whether a picture denotes anything or not, we can only proceed as if it did not—that is, confine ourselves to considering what kind of picture it is. Thus cases of indeterminate denotation are treated in the same way as cases of null denotation.

But not only where the denotation is null or indeterminate does the classification of a picture need to be considered. For the denotation of a picture no more determines its kind than the kind of picture determines the denotation. Not every man-picture represents a man, and conversely not every picture that represents a man is a man-picture. And in the difference between being and not being a man-picture lies the difference, among pictures that represent a man, between those that do and those that do not represent him as a man.

6. Representation-as

The locution "represents . . . as" has two quite different uses. To say that a picture represents 'the Duke of Wellington as an infant, or as an adult, or as the victor at Waterloo' is often merely to say that the picture represents the Duke at a given time or period—that it represents a certain (long or short, continuous or broken) temporal part or 'time-slice' of him. Here "as . . ." combines with the noun "the Duke of Wellington" to form a description of one portion of the whole extended individual.²² Such a description can always be replaced by another like "the infant Duke of Wellington" or "the Duke of Wellington upon the occasion of his victory at Waterloo". Thus these cases raise no difficulty; all that is being said is that the picture represents the object so described.

The second use is illustrated when we say that a given picture represents Winston Churchill as an infant, where the picture does not represent the infant Churchill but rather represents the adult Churchill as an infant. Here, as well as when we say that other pictures represent the adult Churchill as an adult, the "as . . ." combines with and modifies the *verb*; and we have genuine cases of *representation-as*. Such representation-as wants now to be distinguished from and related to representation.

A picture that represents a man denotes him; a picture

²² I am indebted to Mr. H. P. Grice and Mr. J. O. Urmson for comments leading to clarification of this point. Sometimes, the portion in question may be marked off along other than temporal lines. On the notion of a temporal part, see SA, pp. 127–129.

that represents a fictional man is a man-picture; and a picture that represents a man as a man is a man-picture denoting him. Thus while the first case concerns only what the picture denotes, and the second only what kind of picture it is, the third concerns both the denotation and the classification.

More accurate formulation takes some care. What a picture is said to represent may be denoted by the picture as a whole or by a part of it. Likewise, a picture may be a soandso-picture as a whole or merely through containing a soandso-picture.²³ Consider an ordinary portrait of the Duke and Duchess of Wellington. The picture (as a whole) denotes the couple, and (in part) denotes the Duke. Furthermore, it is (as a whole) a two-person-picture, and (in part) a man-picture. The picture represents the Duke and Duchess as two persons, and represents the Duke as a man. But although it represents the Duke, and is a two-person-picture, it obviously does not represent the Duke as two persons; and although it represents two persons and is a man-picture, it does not represent the two as a man. For the picture neither is nor contains any picture that as a whole both represents the Duke and is a two-man-picture, or that as a whole both represents two persons and is a man-picture.

In general, then, an object *k* is represented as a soandso by a picture *p* if and only if *p* is or contains a picture that

²³ The contained picture may, nevertheless, denote given objects and be a soandso-picture as a result of its incorporation in the context of the containing picture, just as "triangle" through occurrence in "triangle and drums" may denote given musical instruments and be a musical-instrument-description.

as a whole both represents *k* and is a soandso-picture.²⁴ Many of the modifiers that have had to be included here may, however, be omitted as understood in what follows; for example, "is or contains a picture that as a whole both represents Churchill and is an adult-picture" may be shortened to "is an adult-picture representing Churchill".

Everyday usage is often careless about the distinction between representation and representation-as. Cases have already been cited where in saying that a picture represents a soandso we mean not that it denotes a soandso but that it is a soandso-picture. In other cases, we may mean both. If I tell you I have a picture of a certain black horse, and then I produce a snapshot in which he has come out a light speck in the distance, you can hardly convict me of lying; but you may well feel that I misled you. You understandably took me to mean a picture of the black horse as such; and you therefore expected the picture not only to denote the horse in question but to be a black-horse-picture. Not inconceivably, saying a picture represents the black horse might on other occasions mean that it represents the horse as black (i.e., that it is a black-thing-picture representing the horse) or that it represents the black thing in question as a horse (i.e., that it is a horse-picture representing the black thing).

The ambiguities of ordinary use do not end there. To

²⁴ This covers cases where *k* is represented as a soandso by either a whole picture or part of it. As remarked in the latter part of note 19 above, there are restrictions upon the admissible replacements for "soandso" in this definitional schema; an old or square picture or one belonging to Churchill does not thereby represent him as old or square or self-possessioned.

say that the adult Churchill is represented as an infant (or as an adult) is to say that the picture in question is an infant-picture (or an adult-picture). But to say that Pickwick is represented as a clown (or as Don Quixote) cannot mean that the picture is a clown-picture (or Don-Quixote-picture) representing Pickwick; for there is no Pickwick. Rather, what is being said is that the picture belongs to a certain rather narrow class of pictures that may be described as Pickwick-as-clown-pictures (or Pickwick-as-Don-Quixote-pictures).

Distinctions obscured in much informal discourse thus need to be carefully marked for our purposes here. Being a matter of monadic classification, representation-as differs drastically from dyadic denotative representation. If a picture represents *k* as a (or the) soandso, then it denotes *k* and is a soandso-picture. If *k* is identical with *h*, the picture also denotes and represents *h*. And if *k* is a suchandsuch, the picture also represents a (or the) suchandsuch, but not necessarily as a (or the) suchandsuch. To represent the first Duke of Wellington is to represent Arthur Wellesley and also to represent a soldier, but not necessarily to represent him as a soldier; for some pictures of him are civilian-pictures.

Representations, then, are pictures that function in somewhat the same way as descriptions.²⁵ Just as objects are classified by means of, or under, various verbal labels,

²⁵ The reader will already have noticed that "description" in the present text is not confined to what are called definite descriptions in logic but covers all predicates from proper names through purple passages, whether with singular, multiple, or null denotation.

so also are objects classified by or under various pictorial labels. And the labels themselves, verbal or pictorial, are in turn classified under labels, verbal or nonverbal. Objects are classified under "desk", "table", etc., and also under pictures representing them. Descriptions are classified under "desk-description", "centaur-description", "Cicero-name", etc.; and pictures under "desk-picture", "Pickwick-picture", etc. The labeling of labels does not depend upon what they are labels for. Some, like "unicorn", apply to nothing; and as we have noted, not all pictures of soldiers are soldier-pictures. Thus with a picture as with any other label, there are always two questions: what it represents (or describes) and the sort of representation (or description) it is. The first question asks what objects, if any, it applies to as a label; and the second asks about which among certain labels apply to it. In representing, a picture at once picks out a class of objects and belongs to a certain class or classes of pictures.²⁶

7. Invention

If representing is a matter of classifying objects rather than of imitating them, of characterizing rather than of copying, it is not a matter of passive reporting. The object does not sit as a docile model with its attributes neatly

²⁶ The picture does not denote the class picked out, but denotes the no or one or several members of that class. A picture of course belongs to countless classes, but only certain of these (e.g., the class of square-pictures, the class of Churchill-pictures) and not others (e.g., the class of square pictures, the class of pictures belonging to Churchill) have to do with what the picture represents-as.

separated and thrust out for us to admire and portray. It is one of countless objects, and may be grouped with any selection of them; and for every such grouping there is an attribute of the object. To admit all classifications on equal footing amounts to making no classification at all. Classification involves preferment; and application of a label (pictorial, verbal, etc.) as often *effects* as it records a classification. The 'natural' kinds are simply those we are in the habit of picking out for and by labeling. Moreover, the object itself is not ready-made but results from a way of taking the world. The making of a picture commonly participates in making what is to be pictured. The object and its aspects depend upon organization; and labels of all sorts are tools of organization.

Representation and description thus involve and are often involved in organization. A label associates together such objects as it applies to, and is associated with the other labels of a kind or kinds. Less directly, it associates its referents with these other labels and with their referents, and so on. Not all these associations have equal force; their strength varies with their directness, with the specificity of the classifications in question, and with the firmness of foothold these classifications and labelings have secured. But in all these ways a representation or description, by virtue of how it classifies and is classified, may make or mark connections, analyze objects, and organize the world.

Representation or description is apt, effective, illuminating, subtle, intriguing, to the extent that the artist or writer grasps fresh and significant relationships and devises

means for making them manifest. Discourse or depiction that marks off familiar units and sorts them into standard sets under well-worn labels may sometimes be serviceable even if humdrum. The marking off of new elements or classes, or of familiar ones by labels of new kinds or by new combinations of old labels, may provide new insight. Gombrich stresses Constable's metaphor: "Painting is a science . . . of which pictures are but the experiments."²⁷ In representation, the artist must make use of old habits when he wants to elicit novel objects and connections. If his picture is recognized as almost but not quite referring to the commonplace furniture of the everyday world, or if it calls for and yet resists assignment to a usual kind of picture, it may bring out neglected likenesses and differences, force unaccustomed associations, and in some measure remake our world. And if the point of the picture is not only successfully made but is also well-taken, if the realignments it directly and indirectly effects are interesting and important, the picture—like a crucial experiment—makes a genuine contribution to knowledge. To a complaint that his portrait of Gertrude Stein did not look like her, Picasso is said to have answered, "No matter; it will."

In sum, effective representation and description require invention. They are creative. They inform each other; and they form, relate, and distinguish objects. That nature imitates art is too timid a dictum. Nature is a product of art and discourse.

²⁷ From Constable's fourth lecture at the Royal Institution in 1836; see C. R. Leslie, *Memoirs of the Life of John Constable*, ed. Jonathan Mayne (London, Phaidon Press, 1951), p. 323.

8. Realism

This leaves unanswered the minor question what constitutes realism of representation. Surely not, in view of the foregoing, any sort of resemblance to reality. Yet we do in fact compare representations with respect to their realism or naturalism or fidelity. If resemblance is not the criterion, what is?

One popular answer is that the test of fidelity is deception, that a picture is realistic just to the extent that it is a successful illusion, leading the viewer to suppose that it is, or has the characteristics of, what it represents. The proposed measure of realism, in other words, is the probability of confusing the representation with the represented. This is some improvement over the copy theory; for what counts here is not how closely the picture duplicates an object but how far the picture and object, under conditions of observation appropriate to each, give rise to the same responses and expectations. Furthermore, the theory is not immediately confounded by the fact that fictive representations differ in degree of realism; for even though there are no centaurs, a realistic picture might deceive me into taking it for a centaur.

Yet there are difficulties. What deceives depends upon what is observed, and what is observed varies with interests and habits. If the probability of confusion is 1, we no longer have representation—we have identity. Moreover, the probability seldom rises noticeably above zero for even the most guileful *trompe-l'œil* painting seen under ordinary gallery conditions. For seeing a picture as a picture pre-

cludes mistaking it for anything else; and the appropriate conditions of observation (e.g., framed, against a uniform background, etc.) are calculated to defeat deception. Deception enlists such mischief as a suggestive setting, or a peep-hole that occludes frame and background. And deception under such nonstandard conditions is no test of realism; for with enough staging, even the most unrealistic picture can deceive. Deception counts less as a measure of realism than as evidence of magicianship, and is a highly atypical mishap. In looking at the most realistic picture, I seldom suppose that I can literally reach into the distance, slice the tomato, or beat the drum. Rather, I recognize the images as signs for the objects and characteristics represented—signs that work instantly and unequivocally without being confused with what they denote. Of course, sometimes where deception does occur—say by a painted window in a mural—we may indeed call the picture realistic; but such cases provide no basis for the usual ordering of pictures in general as more or less realistic.

Thoughts along these lines have led to the suggestion that the most realistic picture is the one that provides the greatest amount of pertinent information. But this hypothesis can be quickly and completely refuted. Consider a realistic picture, painted in ordinary perspective and normal color, and a second picture just like the first except that the perspective is reversed and each color is replaced by its complementary. The second picture, appropriately interpreted, yields exactly the same information as the first. And any number of other drastic but information-preserving transformations are possible. Obviously, real-

istic and unrealistic pictures may be equally informative; informational yield is no test of realism.

So far, we have not needed to distinguish between fidelity and realism. The criteria considered earlier have been as unsatisfactory for the one as for the other. But we can no longer equate them. The two pictures just described are equally correct, equally faithful to what they represent, provide the same and hence equally true information; yet they are not equally realistic or literal. For a picture to be faithful is simply for the object represented to have the properties that the picture in effect ascribes to it. But such fidelity or correctness or truth is not a sufficient condition for literalism or realism.

The alert absolutist will argue that for the second picture but not the first we need a key. Rather, the difference is that for the first the key is ready at hand. For proper reading of the second picture, we have to discover rules of interpretation and apply them deliberately. Reading of the first is by virtually automatic habit; practice has rendered the symbols so transparent that we are not aware of any effort, of any alternatives, or of making any interpretation at all.²⁸ Just here, I think, lies the touchstone of realism: not in quantity of information but in how easily it issues. And this depends upon how stereotyped the mode of representation is, upon how commonplace the labels and their uses have become.

²⁸ Cf. Descartes, *Meditations on the First Philosophy*, trans. E. S. Haldane and G. R. T. Ross (New York, Dover Publications, Inc., 1955), vol. 1, p. 155; also Berkeley, "Essay Towards a New Theory of Vision", in *Works on Vision*, ed. C. M. Turbayne (New York, The Bobbs-Merrill Co., Inc., 1963), p. 42.

Realism is relative, determined by the system of representation standard for a given culture or person at a given time. Newer or older or alien systems are accounted artificial or unskilled. For a Fifth-Dynasty Egyptian the straightforward way of representing something is not the same as for an eighteenth-century Japanese; and neither way is the same as for an early twentieth-century Englishman. Each would to some extent have to learn how to read a picture in either of the other styles. This relativity is obscured by our tendency to omit specifying a frame of reference when it is our own. "Realism" thus often comes to be used as the name for a particular style or system of representation. Just as on this planet we usually think of objects as fixed if they are at a constant position in relation to the earth, so in this period and place we usually think of paintings as literal or realistic if they are in a traditional²⁹ European style of representation. But such egocentric elipsis must not tempt us to infer that these objects (or any others) are absolutely fixed, or that such pictures (or any others) are absolutely realistic.

Shifts in standard can occur rather rapidly. The very effectiveness that may attend judicious departure from a traditional system of representation sometimes inclines us at least temporarily to install the newer mode as standard. We then speak of an artist's having achieved a new degree of realism, or having found new means for the realistic rendering of (say) light or motion. What happens here is

²⁹ Or conventional; but "conventional" is a dangerously ambiguous term: witness the contrast between "very conventional" (as "very ordinary") and "highly conventional" or "highly conventionalized" (as "very artificial").

something like the 'discovery' that not the earth but the sun is 'really fixed'. Advantages of a new frame of reference, partly because of their novelty, encourage its enthronement on some occasions in place of the customary frame. Nevertheless, whether an object is 'really fixed' or a picture is realistic depends at any time entirely upon what frame or mode is then standard. Realism is a matter not of any constant or absolute relationship between a picture and its object but of a relationship between the system of representation employed in the picture and the standard system. Most of the time, of course, the traditional system is taken as standard; and the literal or realistic or naturalistic system of representation is simply the customary one.

Realistic representation, in brief, depends not upon imitation or illusion or information but upon inculcation. Almost any picture may represent almost anything; that is, given picture and object there is usually a system of representation, a plan of correlation, under which the picture represents the object.³⁰ How correct the picture is under that system depends upon how accurate is the information about the object that is obtained by reading the picture according to that system. But how literal or realistic the picture is depends upon how standard the system is. If representation is a matter of choice and correctness a matter of information, realism is a matter of habit.

³⁰ Indeed, there are usually many such systems. A picture that under one (unfamiliar) system is a correct but highly unrealistic representation of an object may under another (the standard) system be a realistic but very incorrect representation of the same object. Only if accurate information is yielded under the standard system will the picture represent the object both correctly and literally.

Our addiction, in the face of overwhelming counter-evidence, to thinking of resemblance as the measure of realism is easily understood in these terms. Representational customs, which govern realism, also tend to generate resemblance. That a picture looks like nature often means only that it looks the way nature is usually painted. Again, what will deceive me into supposing that an object of a given kind is before me depends upon what I have noticed about such objects, and this in turn is affected by the way I am used to seeing them depicted. Resemblance and deceptiveness, far from being constant and independent sources and criteria of representational practice are in some degree products of it.³¹

³¹ Neither here nor elsewhere have I argued that there is no constant relation of resemblance; judgments of similarity in selected and familiar respects are, even though rough and fallible, as objective and categorical as any that are made in describing the world. But judgments of complex overall resemblance are another matter. In the first place, they depend upon the aspects or factors in terms of which the objects in question are compared; and this depends heavily on conceptual and perceptual habit. In the second place, even with these factors determined, similarities along the several axes are not immediately commensurate, and the degree of total resemblance will depend upon how the several factors are weighted. Normally, for example, nearness in geographical location has little to do with our judgment of resemblance among buildings but much to do with our judgment of resemblance among building lots. The assessment of total resemblance is subject to influences galore, and our representational customs are not least among these. In sum, I have sought to show that insofar as resemblance is a constant and objective relation, resemblance between a picture and what it represents does not coincide with realism: and that insofar as resemblance does coincide with realism, the criteria of resemblance vary with changes in representational practice.

9. Depiction and Description

Throughout, I have stressed the analogy between pictorial representation and verbal description because it seems to me both corrective and suggestive. Reference to an object is a necessary condition for depiction or description of it, but no degree of resemblance is a necessary or sufficient condition for either. Both depiction and description participate in the formation and characterization of the world; and they interact with each other and with perception and knowledge. They are ways of classifying by means of labels having singular or multiple or null reference. The labels, pictorial or verbal, are themselves classified into kinds; and the interpretation of fictive labels, and of depiction-as and description-as, is in terms of such kinds. Application and classification of a label are relative to a system³²; and there are countless alternative systems of representation and description. Such systems are the products of stipulation and habituation in varying proportions. The choice among systems is free; but given a system, the question whether a newly encountered object is a desk or a unicorn-picture or is represented by a certain painting is a question of the propriety, under that system, of projecting the predicate "desk" or the predicate "unicorn-picture" or the painting over the thing in question,

³² To anticipate fuller explanation in Chapter V, a symbol system (not necessarily formal) embraces both the symbols and their interpretation, and a language is a symbol system of a particular kind. A formal system is couched in a language and has stated primitives and routes of derivation.

and the decision both is guided by and guides usage for that system.³³

The temptation is to call a system of depiction a language; but here I stop short. The question what distinguishes representational from linguistic systems needs close examination. One might suppose that the criterion of realism can be made to serve here, too; that symbols grade from the most realistic depictions through less and less realistic ones to descriptions. This is surely not the case; the measure of realism is habituation, but descriptions do not become depictions by habituation. The most commonplace nouns of English have not become pictures.

To say that depiction is by pictures while description is by passages is not only to beg a good part of the question but also to overlook the fact that denotation by a picture does not always constitute depiction; for example, if pictures in a commandeered museum are used by a briefing officer to stand for enemy emplacements, the pictures do not thereby represent these emplacements. To represent, a picture must function as a pictorial symbol; that is, func-

³³ On the interaction between specific judgment and general policy, see my *Fact, Fiction, and Forecast* (2nd edition; Indianapolis and New York, The Bobbs-Merrill Co., Inc., 1965—hereinafter referred to as *FFF*), pp. 63–64. The propriety of projecting a predicate might be said to depend upon what similarities there are among the objects in question; but with equal truth, similarities among the objects might be said to depend upon what predicates are projected (cf. note 31 above, and *FFF*, pp. 82, 96–99, 119–120). Concerning the relationship between the 'language theory' of pictures outlined above and the much discussed 'picture theory' of language, see "The Way the World Is" (cited in note 4 above), pp. 55–56.

tion in a system such that what is denoted depends solely upon the pictorial properties of the symbol. The pictorial properties might be roughly delimited by a loose recursive specification.³⁴ An elementary pictorial characterization states what color a picture has at a given place on its face. Other pictorial characterizations in effect combine many such elementary ones by conjunction, alternation, quantification, etc. Thus a pictorial characterization may name the colors at several places, or state that the color at one place lies within a certain range, or state that the colors at two places are complementary, and so on. Briefly, a pictorial characterization says more or less completely and more or less specifically what colors the picture has at what places. And the properties correctly ascribed to a picture by pictorial characterization are its pictorial properties.

All this, though, is much too special. The formula can easily be broadened a little but resists generalization. Sculptures with denotation dependent upon such sculptural properties as shape do represent, but words with denotation dependent upon such verbal properties as spelling do not. We have not yet captured the crucial difference between pictorial and verbal properties, between nonlinguistic and linguistic symbols or systems, that makes the difference between representation in general and description.

What we have done so far is to subsume representation

³⁴ The specification that follows has many shortcomings, among them the absence of provision for the often three-dimensional nature of picture surfaces. But while a rough distinction between pictorial and other properties is useful here and in some later contexts, nothing very vital rests on its precise formulation.

with description under denotation. Representation is thus disengaged from perverted ideas of it as an idiosyncratic physical process like mirroring, and is recognized as a symbolic relationship that is relative and variable. Furthermore, representation is thus contrasted with non-denotative modes of reference. Some of these will be considered in the following chapter. Only much later shall I come back to the troublesome question of distinguishing representational systems from languages.