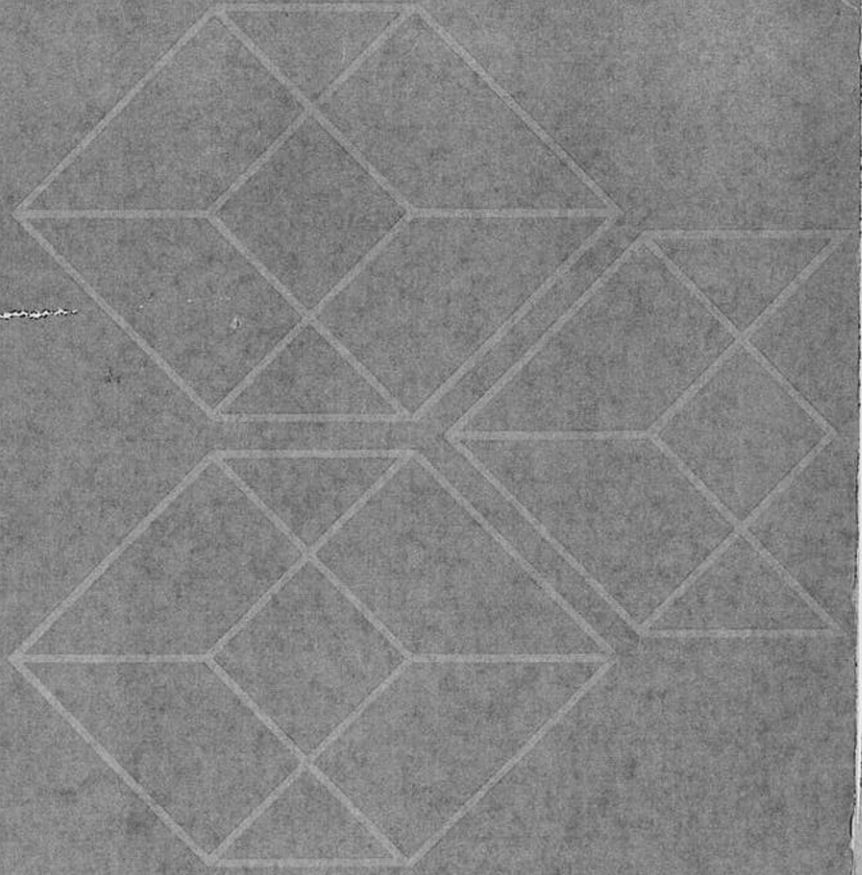


ART,
PERCEPTION,
AND REALITY
E.H. GOMBRICH
JULIAN HOCHBERG
MAX BLACK



E. H. GOMBRICH

the mask and the face: the perception of physiognomic likeness in life and in art

This essay¹ takes its starting point from a chapter in my book on *Art and Illusion*, the chapter entitled *The Experiment of Caricature*.² Caricature had been defined in the seventeenth century as a method of making portraits which aims at the greatest likeness of the whole of a physiognomy while all the component parts are changed. It could thus serve me for a demonstration of equivalence, the proof that the images of art can be convincing without being objectively realistic. I made no attempt, however, to investigate more precisely what was involved in the creation of a striking likeness. It does not look as if anyone has explored the whole vast area of portrait likeness in terms of perceptual psychology. There must be reasons for this omission even beyond the appalling complexity of

¹ An earlier version of this paper was read at a meeting on the psychology of art organized by Professor Max Black at Cornell University in September 1967.

² *Art and Illusion, A Study in the Psychology of Pictorial Representation*, The A. W. Mellon Lectures in the Fine Arts 1956, Bollingen Series XXXV, 5 (New York and London, 1960).

The standard books on portraiture are Wilhelm Wactzoldt, *Die Kunst des*

the problem. Somehow concern with likeness in portraiture bears the stamp of philistinism. It evokes the memory of quarrels between great artists and pompous sitters whose stupid wife insists that there is still something wrong around the mouth. These dreaded discussions, which may be much less trivial than they sound, have made the whole question of likeness a rather touchy one. Traditional aesthetics have provided the artist with two lines of defence which have both remained in vogue since the Renaissance. One is summed up in the answer which Michelangelo is reported to have given when someone remarked that the Medici portraits in the *Sagrestia Nuova* were not good likenesses—what will it matter in a thousand years' time what these men looked like? He had created a work of art and that was what counted.³ The other line goes back to Raphael⁴ and beyond to a panegyric on Filippino Lippi who is there said to have painted a portrait that is more like the sitter than he is himself.⁵ The background of this praise is the Neo-Platonic idea of the genius whose eyes can penetrate through the veil of mere appearances and reveal the truth.⁶ It is an ideology which gives the artist the right to despise the sitter's philistine relatives who cling to the outward husk and miss the essence.

Whatever the use or abuse to which this line of defence has been put in the past and in the present, it must be granted that

Portraits (Leipzig, 1908), and Herbert Furst, *Portrait Painting, Its Nature and Function* (London, 1927). A brief bibliography of the subject can be found in Monroe Wheeler, *Twentieth Century Portraits* (The Museum of Modern Art, New York, 1942); to this might be added Julius von Schlosser, "Gespräch von der Bildniskunst" (1906), *Präluudien* (Berlin, 1927); E. H. Gombrich, "Portrait Painting and Portrait Photography" in Paul Wengraf, ed., *Apropos Portrait Painting* (London, 1945); Clare Vincent, "In Search of Likeness," *Bulletin of the Metropolitan Museum of Art* (New York, April 1966); and John Pope-Hennessy, *The Portrait in the Renaissance*, The A. W. Mellon Lectures in the Fine Arts 1963, Bollingen Series XXXV, 12 (New York and London, 1966).

³ Charles de Tolnay, *Michelangelo*, III (Princeton, 1948), p. 68.

⁴ Vicenzio Golzio, *Raffaello nei documenti* (Vatican City, 1936), Letter by Bembo, 10th April 1516.

⁵ Alfred Scharf, *Filippino Lippi* (Vienna, 1935), p. 92.

⁶ Erwin Panofsky, *Idea*, Studien der Bibliothek Warburg (Hamburg, 1923; English translation, Columbia, 1968). For a recent statement of this point of view, see Ben Shahn, "Concerning 'likeness' in Portraiture," in Carl Nordenfalk, "Ben Shahn's Portrait of Dag Hammarskjöld," *Meddelanden från Nationalmuseum* No. 87 (Stockholm, n.d.).

here, as elsewhere, Platonic metaphysics can be translated into a psychological hypothesis. Perception always stands in need of universals. We could not perceive and recognise our fellow creatures if we could not pick out the essential and separate it from the accidental—in whatever language we may want to formulate this distinction. Today people prefer computer language, they speak of pattern recognition, picking up the invariants which are distinctive of an individual.⁷ It is the kind of skill for which even the most hardened computer designers envy the human mind, and not the human mind only, for the capacity of recognising identity in change which it presupposes must be built into the central nervous system even of animals. Consider what is involved in this perceptual feat of visually recognising an individual member of a species out of the herd, the flock, or the crowd. Not only will the light and the angle of vision change as it does with all objects, the whole configuration of the face is in perpetual movement, a movement which somehow does not affect the experience of physiognomic identity or, as I propose to call it, physiognomic constancy.

Not everybody's face may be as mobile as that of Mr. Emanuel Shinwell whose characteristic changes of expression during a speech were caught by the candid camera of the *London Times*, but the example would seem to justify the reaction that we have not one face but a thousand different faces.⁸ It might be objected that the unity in diversity here presents no logical or psychological problem, the face just shows different expressions as its mobile parts respond to the impulse of changing emotions. If the comparison were not so chilling, we might compare it to an instrument board with the mouth or the eyebrows each serving as indicators. This was indeed the theory of the first systematic student of human expression, Charles Le Brun, who based himself on Cartesian mechanics and saw in the eyebrows real pointers registering the character

⁷ Thanks to the kindness of Mr. J. R. Pierce and of the author I was allowed to see a preprint of a paper based on research at the Bell Telephone Laboratories, by Leon D. Harmon, "Some Aspects of Recognition of Human Faces."

⁸ This observation served Benedetto Croce as a convenient argument to deny the justification of any concept of "likeness" (*Problemi di Estetica*, (Bari, 1923), pp. 258-59). The English portrait painter Orpen took a similar line when his Portrait of the Archbishop of Canterbury was criticized: "I see seven Archbishops; which shall I paint?" (The anecdote was related by W. A. Payne, in a Letter to the *London Times*, March 5, 1970.)



(a)



(b)



(c)

FIG. 1. Emanuel Shinwell making a speech, from the *London Times*, 7 October 1966

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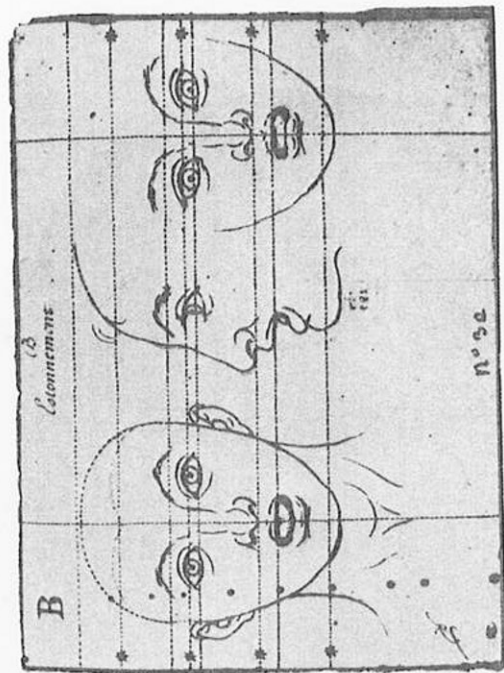


FIG. 2. Charles Le Brun, *Astonishment*, 1698

of the emotion or passion.⁹ On this reading of the situation, there is no more problem in our recognising Emanuel Shinwell in different moods than there is in recognising our watch at different hours. The framework remains and we quickly learn to separate the rigid bone structure of the head from the ripples of changes which play on its surface.

But clearly this explanation operates at best with a gross oversimplification. The framework does not remain static; we all change throughout our lives from day to day, from year to year. The famous series of Rembrandt's self-portraits from youth to old age shows the artist studying this relentless process, but it is only with the coming of photography that we have all become fully aware of this effect of time. We look at the snapshots of ourselves and of our friends taken a few years ago and we recognise with a shock that we all have changed much more than we tended to notice in the day-to-day business of living. The better we know a person, the more

⁹ Jennifer Montagu, "Charles Le Brun's *Conférence sur l'expression*," unpublished Ph.D. thesis, University of London, 1960. The full Cartesian implications of Le Brun's exposition were only brought out in this analysis.

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FIG. 3. Bertrand Russell at the age of four

often we see the face, the less do we notice this transformation except, perhaps, after an illness or another crisis. The feeling of constancy completely predominates over the changing appearance. And yet, if the time-span is long enough this change also affects the frame of reference, the face itself, which a vulgarism actually calls the "dial." It does so most thoroughly throughout childhood when proportions change and we first acquire a proper nose, but it also does so once more in old age when we lose our teeth and our hair. Yet all growth and decay cannot destroy the unity of the individual's looks—witness two photographs of Bertrand Russell, as a child of four and at the age of ninety. It certainly would not be easy to programme a computer to pick out the invariant, and yet it is the same face.

If we watch ourselves testing this assertion and comparing the two pictures, we may find that we are probing the face of the child trying to project into it, or onto it, the more familiar face of the aged philosopher. We want to know if we can see the likeness or,



FIG. 4. Bertrand Russell at the age of ninety, photographed by Lotte Meitner-Graf

if our mental set is one of scepticism, we want to prove to ourselves that we cannot see it. In any case those who are familiar with Bertrand Russell's striking features will inevitably read the comparison from right to left, and try to find the old man in the young child; his mother, if she could be alive, would look in the features of the old man for the traces of the child, and having lived through this slow transformation, would be more likely to succeed. The experience of likeness is a kind of perceptual fusion based on recognition, and here as always past experience will colour the way we see a face.

It is on this fusion of unlike configurations that the experience of physiognomic recognition rests. Logically, of course, anything can be said to be like any other thing in some respect, and any child can be argued to be more like any other child than like an old man, indeed any photograph can be argued to be more like any other photograph than any living person. But such quibbles are only helpful if they make us aware of the distance that separates

logical discourse from perceptual experience. Rationally we are free to categorise things in any number of ways and order them according to any quality they may have in common, be it weight, colour, size, function, or shape. Moreover, in this ordering activity we can always specify in which respect one thing is like another.

That physiognomic likeness which results in fusion and recognition is notoriously less easy to specify and analyse. It is based on what is called a global impression, the resultant of many factors which yet in their interaction make for a very particular physiognomic quality. Many of us would be unable to describe the individual features of our closest friends, the colour of their eyes, the exact shape of their noses, but this uncertainty does not impair our feeling of familiarity with their features which we would pick out among a thousand because we respond to their characteristic expression. Clearly we must not confuse this experience with the perception of contrasting expressions on a person's face. Just as we can generalise on a person's voice or on the duct of his handwriting through all the varieties of tone or line, so we feel that there is some general dominant expression of which the individual expressions are merely modifications. In Aristotelian terms it is his substance of which all modifications are mere accidents, but it can transcend the individual in the experience of family likeness so marvellously described in a letter by Petrarch. Petrarch discusses the problem of imitating the style of an admired author and says that the similarity should be like that between a son and his father, where there is often a great difference between their individual features "and yet a certain shadow, or what our painters call the *aria*, reminds us of the father as soon as we see the son, even though, if the matter were put to measurement, all parts would be found to be different."¹⁰

We all know such examples of family likeness, but all of us have also been irritated by the talk of visiting aunts about baby looking "exactly like" uncle Tom or uncle John, assertions which are sometimes countered with the remark "I cannot see this." For the student of perception such discussions can never be boring, the very disagreement about what they see is grist for the mill of those

¹⁰ Francesco Petrarca, *Le famigliari* XXIII, 19, 78-94. For the full text see also my paper on "The Style all' antica," *Norm and Form* (London, 1966).

of us who look at perception as a nearly automatic act of categorising in universals. What people experience as likeness throws light on their perceptual categories. Clearly we do not all have the same impression of a person's *aria* or characteristic face. We do see them differently according to the categories with which we scan our fellow creatures. This fact, perhaps, accounts for the central paradox in the field of physiognomic perception, the one which is implied in the distinction between the mask and the face: the experience of the underlying constancies in a person's face which is so strong as to survive all the transformations of mood and age and even to leap across generations, conflicts with the strange fact that such recognition can be inhibited with comparative ease by what may be called the mask. This is the alternative category of recognition, the

FIG. 5 (left). *Ruth Draper as the businessman's wife*, photographed by Dorothy Wilding

FIG. 6 (right). *Ruth Draper as the businessman's secretary*, photographed by Nicholas Murray



cruder type of likeness which can throw the whole mechanism of physiognomic recognition into confusion. The art which experiments with the mask is of course the art of disguise, of acting. The whole point of the actor's skill is precisely this: to compel us to see him or her as different people according to the different roles. The great actor does not even need the mask of make-up to enforce this transformation. A great impersonator such as Ruth Draper was able to transform herself from scene to scene with the simplest of means. The illustrations show her as two women in the life of one businesswoman, the haughty wife and the devoted secretary. The scarf, the costume, and the wig may help, but what really effected the transformation was the difference in posture. In the whole tonus of the persons represented.

Sociologists have increasingly reminded us of the truth that we are all actors, we all obediently play one of the roles which our society offers to us—even the "hippies" do. In the society with which we are familiar we are extremely sensitive to the outward signs of these roles and much of our categorisation proceeds along

Fig. 7. David Low, *Colonel Blimp*, 1936



these lines. We have learned to distinguish the types with which our writers and satirists keep us in touch: there is the military type, David Low's Colonel Blimp of blessed memory, the sporty type, the arty type, the executive, the academic type, and so all through the repertory of the comedy of life. Clearly this knowledge of the cast permits a great economy of effort in dealing with our fellow creatures. We see the type and adjust our expectations: the military red-faced man will have a booming voice, like strong drink, and dislike modern art. True, life has also taught us that we must be prepared for such syndromes to be incomplete. In fact whenever we meet the exception to this rule and find the perfect embodiment of a type we are apt to say, "this man is so much the typical Central European intellectual it just is not true." But it often is true. We model ourselves so much on the expectation of others that we assume the mask or, as the Jungians say, the *persona* which life assigns to us, and we grow into our type till it moulds all our behaviour, down to our gait and our facial expression. It seems there is nothing to exceed the plasticity of man except, of course, the plasticity of woman. Women work more consciously on their type and image than most men used to do, and often they try by means of make-up and hair style to shape themselves in the image of some fashionable idol of the screen or of the stage.¹¹

But how do these idols shape their image? The language of fashion gives at least a partial answer. They look for a distinctive note, for a striking characteristic that will mark them out and attract attention through a new kind of piquancy. One of the most intelligent of stage personalities, the late Yvette Guilbert, described in her memoirs how she deliberately set about in her youth to create her type by deciding that, since she was not beautiful in the conventional sense, she would be different. "My mouth," she writes, "was narrow and wide and I refused to reduce it through make-up, because at that time all the women of the stage had tiny heart-shaped mouths."¹² Instead, she emphasised her lips to contrast with her pale face and to bring out her smile. Her dress was to be simple as a shift, she wore no ornament, but she completed her striking silhouette by adopting the long black gloves which became famous.

¹¹ Liselotte Strelow, *Das manipulierte Menschenbildnis* (Düsseldorf, 1961).
¹² Yvette Guilbert, *La chanson de ma vie* (Paris, 1927).

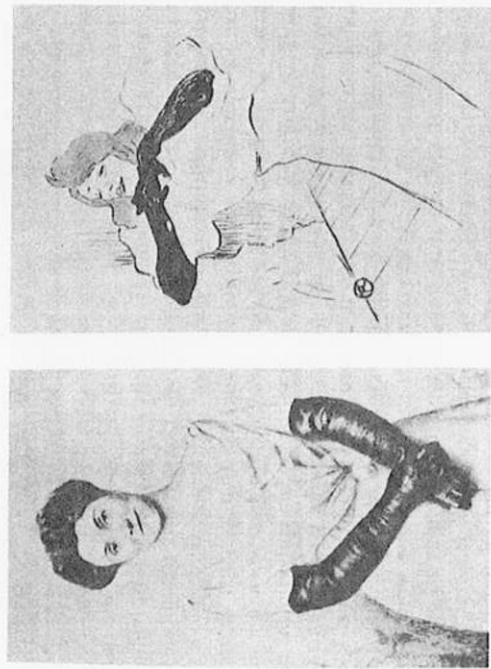


FIG. 8 (left). *Yvette Guilbert*, by Rennowitz von Loefen, 1899

FIG. 9 (right). *Yvette Guilbert*, lithograph by Toulouse Lautrec

Thus her image which was a deliberate creation met the artist half way, because it could be summed up in those few telling strokes we remember from the lithographs of Toulouse Lautrec.

We are approaching the area of caricature, or rather that borderland between caricature and portraiture which is occupied by images of stylised personalities, all the actors on the public stage who wear their mask for a purpose. Think of Napoleon's forelock and of that gesture of standing with the hand tucked into his waistcoat which the actor Talma is said to have suggested to him. It has remained a godsend to impersonators and cartoonists seeking a formula for a Napoleonic aspiration—and so have the other tricks adopted by the lesser Napoleons we have had to endure.

It hardly matters how trivial the distinctive trait may be which is taken up, provided it remains consistently identifiable. Hitler's financial wizard, Hjalmar Schacht, was apparently in the habit of wearing a relatively high starched collar. The collar itself somehow evokes the social type of the rigid Prussian moving in the company of upright executives. It would be interesting to find out by how

much the height of Schacht's collar exceeded the average of his class; at any rate, the deviation stuck and gradually the collar could replace the likeness of the man. The mask swallowed up the face.

If these examples have suggested anything, it is that we generally do take in the mask before we notice the face. The mask here stands for the crude distinctions, the deviations from the norm which mark a person off from others. Any such deviation which attracts our attention may serve us as a tab of recognition and promises to save us the effort of further scrutiny. For it is not really the perception of likeness for which we are originally programmed, but the noticing of unlikeness, the departure from the norm which stands out and sticks in the mind. This mechanism serves us in good stead as long as we move in familiar surroundings and have to mark the slight but all-important differences which distinguish one individual from another. But once an unexpected

FIG. 10 (left). "Kobbe," *Hjalmar Schacht*, M.M., *Der Montag Morgen*, 10 March 1924

FIG. 11 (right). Caricature of Schacht, *8 Uhr Abendblatt*, Berlin, 13 June 1932. Caption reads: "Look out! A high collar has

turned up again!"





FIG. 12. *Sir Samuel Garth*, by G. Kneller,
National Portrait Gallery, London

distinctive feature obtrudes itself the mechanism can jam. It is said that all Chinese look alike to Westerners and all Westerners to Chinese. This may not be strictly true, but the belief reveals an important feature of our perception. One might indeed compare the effect with what is known as the masking effect in the psychology of perception where a strong impression impedes the perception of lower thresholds. A bright light masks the modulations of the dim nuances in the vicinity just as loud tone masks subsequent soft modulations of sound. Such unaccustomed features as slanting eyes will at first rivet our attention and make it hard for us to attend to the subtle variations. Hence the effectiveness also of any striking and unusual mark as a disguise. It is not only all Chinese who tend to look alike to us but also all men in identical wigs such as the members of the eighteenth-century Kitkat Club displayed in the National Portrait Gallery in London.

How far do such portraits represent types or masks, and how



FIG. 13. *John Somers*, by G. Kneller,
National Portrait Gallery, London

far are they individual likenesses? Clearly there are two difficulties in answering this important question, one obvious, the other perhaps less so. The obvious difficulty is the same with all portraits of people before the invention of photography—we have very few objective controls about the sitter's appearance except occasionally a life—or a death—mask or a tracing of the shadow as a silhouette. We shall never know whether we would recognise Mona Lisa or the Laughing Cavalier if we met them in the flesh. The second difficulty springs from the fact that we ourselves are trapped by the mask and therefore find it hard to perceive the face. We have to make an effort to abstract from the wig to see how far these faces differ, and even then changing ideas of decorum and deportment, the social mask of expression, make it hard for us to see the person as an individual. Art historians often write of certain periods and styles that portraits at that time were confined to types rather than to individual likeness, but much depends on how one decides to use

these terms. Even the stereotypical images of tribal art have been known to embody an individual distinctive feature which would escape us since we neither know the person represented nor the stylistic conventions of the tribe. One thing is sure, moreover: it is almost impossible for us to see an old portrait as it was meant to be seen before the snapshot and screen spread and trivialised the likeness, for we can hardly recapture the full significance of an image commissioned and made to sum up the sitter's social status and career, and to hand down his features as a memorial to his descendants and as a monument to later ages. Obviously in such a situation the portrait had quite a different weight. The artist's reading of the sitter's features would impose itself during his life-time and would totally take over after his death in a manner we can neither hope for, nor need fear, since the multiplicity of records we have will always counter such a psychological take-over bid.

No wonder the coming of the camera found the artists and their friends in a bewildered and aggressive mood. Some of the arguments used against the possibility of a photographic likeness produced in the nineteenth century look surprising to us, for many now will prefer Nadar's splendid portrait of Franz Liszt which shows the great virtuoso, warts and all, to the rather theatrical painting by Franz Lenbach, but, again, we must admit that we have never known Liszt. Here the question is really whether we can even see photographs in the same way in which they were first seen. The candid camera and the television screen have completely changed our mental set towards the image of our contemporaries. Such intimate snapshots as those showing our modern Franz Liszt, Sviatoslav Richter, at rehearsals in shirtsleeves would not only have been technically impossible in the nineteenth century, they would also have been psychologically unacceptable, they would have struck our grandfathers as both indecorous and totally unrecognisable.

But though the snapshot has transformed the portrait it has also made us see that problem of likeness more clearly than past centuries were able to formulate it. It has drawn attention to the paradox of capturing life in a still, of freezing the play of features in an arrested moment of which we may never be aware in the flux of events. Thanks to the work of J. J. Gibson in the psychology of perception we have become increasingly aware of the decisive role

which the continuous flow of information plays in all our commerce with the visible world.¹³ Hence we also understand a little more wherein rests what might be called the artificiality of art, the confinement of the information to simultaneous cues. To put the matter crudely—if the film camera rather than the chisel, the brush, or even the photographic plate had been the first recorder of human physiognomies, the problem which language in its wisdom calls "catching a likeness" would never have obtruded itself to the same extent on our awareness. The film shot can never fail as signally as the snapshot can, for even if it catches a person blinking or sneezing the sequence explains the resulting grimace which the corresponding snapshot may leave uninterpretable. Looked at in this way, the miracle is not that some snapshots catch an uncharacteristic aspect, but that both the camera and the brush can abstract from movement and still produce a convincing likeness not only of the mask but also of the face, the living expression.

Clearly the artist or even the photographer could never overcome the torpor of the arrested effigy if it were not for that characteristic of perception which I described as "the beholder's share" in *Art and Illusion*. We tend to project life and expression onto the arrested image and supplement from our own experience what is not actually present. Thus the portraitist who wants to compensate for the absence of movement must first of all mobilise our projection. He must so exploit the ambiguities of the arrested face that the multiplicities of possible readings result in the semblance of life. The immobile face must appear as a nodal point of several possible expressive movements. As a professional photographer once told me with a pardonable overstatement, she searches for the expression which implies all others. A scrutiny of successful portrait photographs confirms indeed this importance of ambiguity. We do not want to see the sitter in the situation in which he actually was—having his portrait taken. We want to be able to abstract from this memory and to see him reacting to more typical real-life contexts.

The story of one of the most successful and most popular photographs of Winston Churchill as a war leader may illustrate this point. We are told by Yosuf Karsh how unwilling he found the

¹³ J. J. Gibson, *The Senses Considered as Perceptual Systems* (Boston, 1966).



FIG. 14. *Franz Liszt*, photographed by Nadar

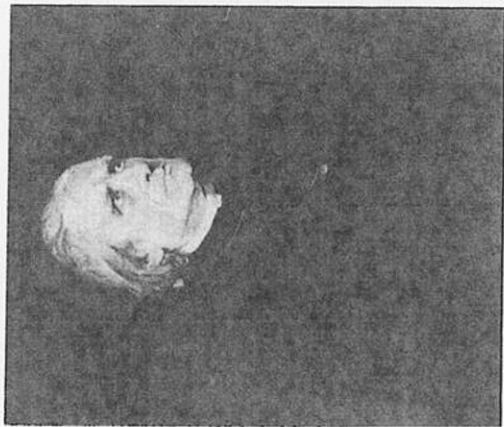


FIG. 15. *Franz Liszt*, painting by Franz Lenbach, Budapest, Museum of Fine Art

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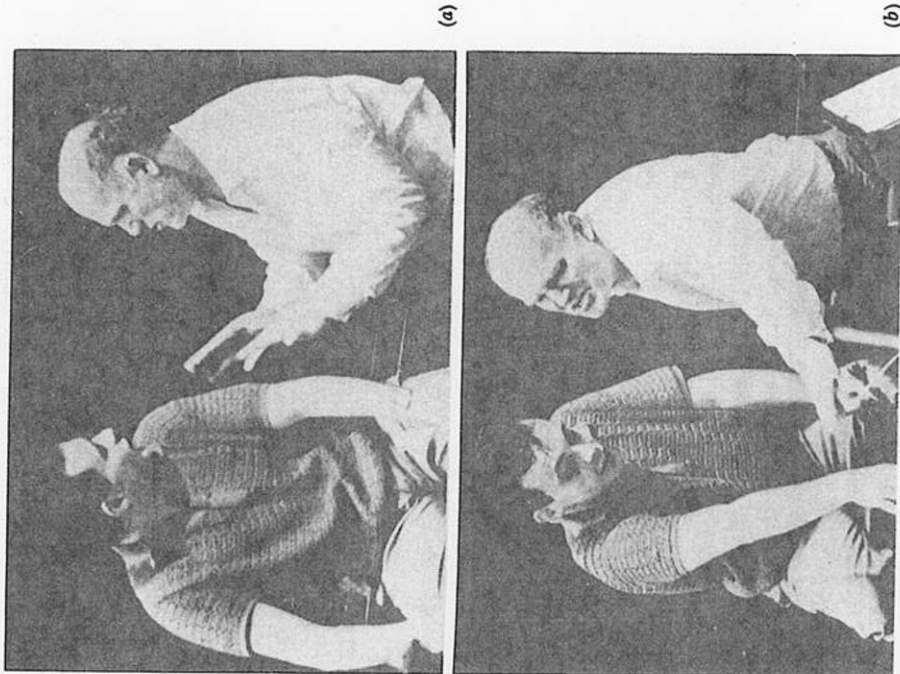


FIG. 16. *Svatoslav Richter*, photographed during rehearsal, Photo Ellinger, Salzburg

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FIG. 17. *Winston Churchill*, photographed by Karsh, Ottawa

busy Prime Minister to pose for this photograph during a visit to Ottawa in December 1941. All he would allow was two minutes as he passed from the chamber of the House to the anteroom. As he approached with a scowl, Karsh snatched the cigar from his mouth and made him really angry. But that expression which was in reality no more than a passing reaction to a trivial incident was perfectly suited to symbolise the leader's defiance of the enemy. It could be generalised into a monument of Churchill's historic role.¹⁴

Admittedly it is not very usual for photographers to exploit the ambiguity or interpretability of an angry frown. More often they ask us to smile, though folklore has it that if we say 'cheese' this produces the same effect around the mouth. The arrested smile is

¹⁴ Yusuf Karsh, *Portraits of Greatness* (Edinburgh, 1959).

certainly an ambiguous and multi-valent sign of animation which has been used by art to increase the semblance of life ever since archaic Greece. The most famous example of its use is of course Leonardo's *Mona Lisa*, whose smile has been the subject of so many and so fanciful interpretations. Maybe we can still learn more about this effect by comparing common-sense theory with unexpected but successful practice.

Roger de Piles (1635-1709) to whom we owe the first detailed discussion of the theory of portrait painting advises the painter to attend to expression:

It is not exactness of design in portraits that gives spirit and true air, so much as the agreement of the parts at the very moment when the disposition and temperament of the sitter are to be hit off. . . .

Few painters have been careful enough to put the parts well together: Sometimes the mouth is smiling, and the eyes are sad; at other times, the eyes are cheerful, and the cheeks lank; by which means their work has a false air, and looks unnatural. We ought therefore to mind, that, when the sitter puts on a smiling air, the eyes close, the corners of the mouth draw up towards the nostrils, the cheeks swell, and the eyebrows widen.¹⁵

Now if we compare this sound advice with a typical eighteenth century portrait such as Quentin de la Tour's charming pastel of his mistress Mile Fel, we see that her eyes are by no means closed as in a smile. And yet the very combination of slightly contradictory features, of a serious gaze with a shadow of a smile results in a subtle instability, an expression hovering between the pensive and the mocking that both intrigues and fascinates. True, the game is not without its risk, and this perhaps explains the degree to which the effect froze into a formula in the eighteenth century portraits of polite society.

The best safeguard against the "unnatural look" or the frozen mask has always been found in the suppression rather than the employment of any contradictions which might impede our projection. This is the trick to which Reynolds referred in his famous analysis of Gainsborough's deliberately sketchy portrait style which I quoted and discussed in *Art and Illusion*. Photographers such as Steichen

¹⁵ Roger de Piles, *Cours de Peinture par Principes* (Paris, 1708), p. 265. I quote from the English translation (London, 1743), pp. 161-62.



FIG. 18. *Mademoiselle Fel*, pastel by Maurice Quentin de la Tour, Musée a Lécuyer, St. Quentin

have aimed at a similar advantage by a combination of lighting and printing tricks, to blur the outline of a face and thus to mobilise our projection, and graphic artists, such as Felix Vallotton in his portrait of *Mallarmé*, have also aimed at similar effects of simplification, much discussed at the turn of the century.¹⁶

We enjoy this game and we rightly admire the painter or the caricaturist who can, as the saying goes, conjure up a likeness with a few bold strokes, by reducing it to essentials. But the portrait painter also knows that the real trouble starts when you have to proceed in the opposite direction. However skilful he may have been with the first rough outline, he must not spoil the sketch on the way to the finished portrait, because the more elements he has to handle, the harder it is to preserve the likeness. From this point of view the experience of the academic portrait painter is almost more interesting than that of the caricaturist. A remarkably circum-spect and revealing report on the problem of catching a likeness can

¹⁶ See the dialogue on portraiture by J. von Schlosser, quoted above, note 2.

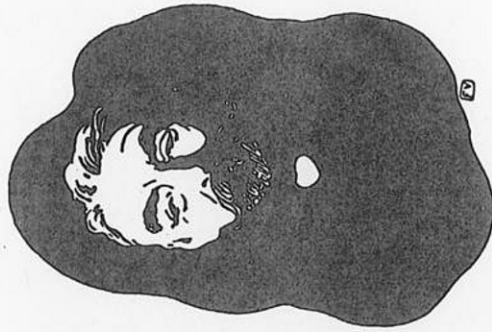


FIG. 19. Felix Vallotton, *Mallarmé*

be found in a book on the practical problems of the portrait painter by Janet Robertson whose paintings belong to the tradition of formal portraiture:

... there are certain errors one learns to look for as the possible cause of untrue expression. Does there seem too "sharp" a quality? Check carefully that the eyes are not too close together; is the look, on the other hand, too "vague"? Make sure they are not too far apart—often, of course, the drawing can be correct, but overemphasis or underemphasis of shadows may seem to draw the eyes together or widen the distance between them. If, in spite of a conviction that you have drawn the mouth correctly, it still somehow looks wrong, check the surrounding tones, especially that on the upper lip (i.e., the whole region between nose and mouth); an error in the tone of this passage can make all the difference in bringing the mouth forward or sending it back, a matter that affects expression at once. If you feel there is something wrong and you cannot locate it, check the position of the ear... Now, if the ear is placed wrongly it alters the whole impression of the facial angle and you may remedy a jowly look or a weak look by correcting that error without touching those features with the expression of which you have been struggling in vain.¹⁷

¹⁷ Janet Robertson, *Practical Problems of the Portrait Painter* (London, 1962).

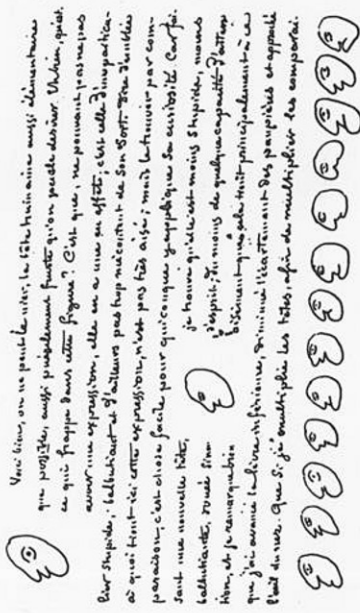


Fig. 20. Toepffer, *The Permanent Traits*, from the *Essay du Physiognomie*, 1845

This description by a painter who had the humility of listening to lay criticism is so instructive because it spells out certain relationships between the shape of the face and what the author calls its expression. What she means has less to do with the play of expressions than with what Petrarch called the *air* of the face. We remember that this expression is not the same as its expressions. The distance of the eyes or the angle of the face are, after all, a matter of bone structure which is unalterable, and yet, as the painter found, it radically influences that over-all quality one might perhaps call the dominant expression. The facts are not in doubt. Long before psychological laboratories were even thought of, artists made systematic experiments which established this dependence. I have paid tribute in *Art and Illusion* to the most thorough and sophisticated of these experimenters, Rodolphe Toepffer, who established what I have proposed to call Toepffer's law, the proposition that any configuration which we can interpret as a face, however badly drawn, with ipso facto have such an expression and individuality.¹⁸ Almost a hundred years after Toepffer, the psychologist Egon

¹⁸ R. Toepffer, *Essai de physiognomie* (Geneva, 1845). English translation by E. Wiese, under the title *Enter the Comics* (Lincoln, Nebraska, 1965).

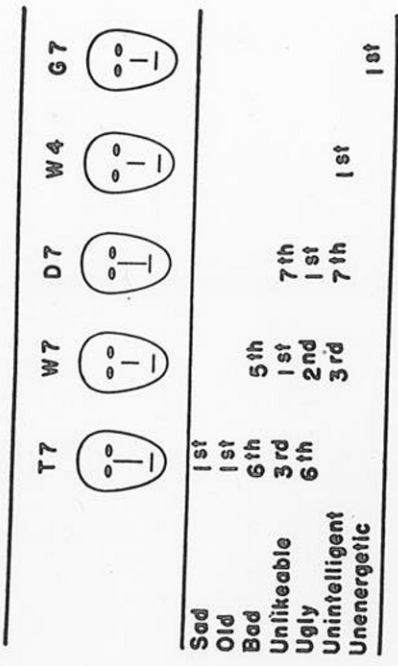


Fig. 21. Schematic heads, after Brunswik and Reiter

Brunswik in Vienna launched a famous series of experiments to probe this kind of dependence. His studies confirm the extreme sensitivity of our physiognomic perception to small changes; a shift in the distance of the eye which would perhaps be unnoticeable in a neutral configuration may radically affect the expression of the manikin, though how it will affect it is not always easy to predict.

Brunswik moreover in a subsequent discussion of his own and other people's findings was careful to warn against generalising his results:

Human appearance and especially the face, constitutes as tight a package of innumerable contributing variables as might be found anywhere in cognitive research.

He goes on reminding us that any new variable introduced may nullify the effect observed in the interaction of others. But—and this was the burden of his difficult methodological book—"the situation is the same for all high-complexity problems of life and behaviour."¹⁹

¹⁹ Egon Brunswik, *Perception and the Representative Design of Psychological Experiments*, 2nd ed. (Berkeley, 1956), p. 115.

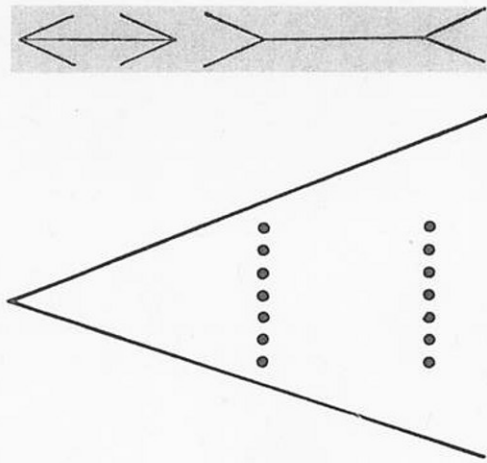


FIG. 22 (left). Contrast illusion, after M. D. Vernon

FIG. 23 (right). Müller-Lyer illusion, after M. D. Vernon

In a sense, one might say, Brunswik encourages the innocent humanist to rush in where angels armed with the tools of factor analysis fear to tread. The mutual interaction of variables in the face has been handled as we have seen, by portrait and mask makers alike. Brunswik refers his scientific readers to the book by a make-up expert. Indeed I would not be surprised if experience in these fields could throw light on unexpected places. Take the problem of headgear and the way it affects the apparent shape of the face. In widening the area around the face two conflicting psychological mechanisms might come into play. The effect of contrast exemplified in a well-known illusion might make the face look narrower. Alternatively we remember the Müller-Lyer illusion which suggests that the addition on either side must rather appear to broaden the face. Now if it is true that the slightest shift in the distance of the eyes results in a noticeable difference of expression and if Janet Robertson is right that eyes further apart give the face a vague expression, this observation might enable us to decide between these mutually exclusive alternatives. Let us try and screen



FIG. 24. Maria Anna of Austria, by Diego Velazquez, Paris, Louvre



FIG. 25. Maria Anna of Austria, as above, without coiffure

off the monstrous coiffure of one of Velazquez's portraits of a Spanish princess, whose appearance usually strikes one as sadly pudding-faced. Does not her gaze acquire more life, intensity and even intelligence when we remove the sideways extensions? The eyes, apparently, move together, which suggests that the effect conforms to the Müller-Lyer illusion.

It is in this area of the interaction between the apparent shape and the apparent expression that we must look for the solution of our problem, the problem of the artist's compensation for the absence of movement, his creation of an image which may be objectively unlike in shape and colour and is yet felt to be like in expression.

There is a telling account given by Mme Gilot of Picasso painting her portrait which supports this assertion to a striking degree. The artist, we hear, originally wanted to do a fairly realistic portrait, but after working a while he said: "No, it is just not your style, a realistic portrait would not represent you at all." She had been sitting down but now he said: "I do not see you seated, you are not at all the passive type, I only see you standing."

Suddenly he remembered that Matisse had spoken of doing my portrait with green hair and he fell in with the suggestion. "Matisse isn't the only one who can paint you with green hair," he said. From that point the hair developed into a leaf form, and once he had done that, the portrait resolved itself in a symbolic floral pattern. He worked in the breasts with the same curving rhythm. The face had remained quite realistic all during these phases. It seemed out of character with the rest. He studied it for a moment. "I have to bring in that face on the basis of another idea," he said. "Even though you have a fairly long oval face, what I need in order to show its light and its expression is to make it a wide oval. I'll compensate for the length by making it a cold colour—blue. It will be like a little blue moon."

He painted a sheet of paper sky-blue and began to cut out oval shapes corresponding in varying degrees to this concept of my head: first, two that were perfectly round; then, three or four more based on his idea of doing it in width. When he had finished cutting them out, he drew in on each of them little signs for the eyes, nose, and mouth. Then he pinned them onto the canvas, one after another, moving each one a little to the left or right, up or down, as it suited him. None seemed really appropriate until he reached the last one. Having tried all the others in various spots, he knew where he wanted it, and when he applied it to the canvas, the form seemed exactly right in just the spot he put it on. It was

28 GOMBRICH

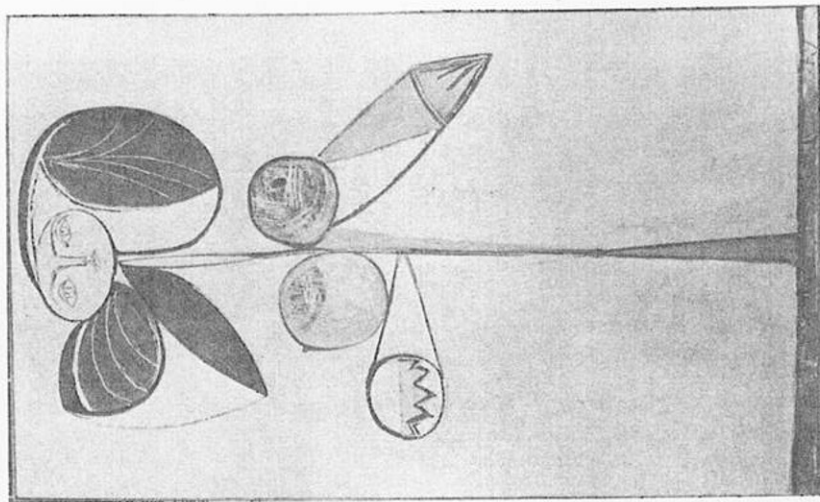


FIG. 26 (left). Françoise Gilot, Photo Optica
FIG. 27 (right). Françoise Gilot, "Femme Fleur" by Picasso

29 THE MASK AND THE FACE

completely convincing. He stuck it to the damp canvas, stood aside, and said, "Now, it's your portrait."²⁰

This record gives us some hints about the lines along which the transposition from life into image may occur. It is a balancing of compensatory moves. To compensate for her face not being really oblong but narrow, Picasso paints it blue—maybe the pallor is here felt to be an equivalent to the impression of slinness. Not that even Picasso felt able to find the exact balance of compensations without trying them out: he tested a number of cardboard shapes. What he was searching for is precisely the equivalent, equivalent at least for him. This, as the saying goes, is how he saw her, or as we should rather say, how he felt her. He groped for the solution of an equation between life and image, and like the conventional portrait artist he tried to catch it by playing with the interaction between shape and expression.

The complexity of this interaction explains not only why women try on new hats in front of a mirror but also why likeness has to be caught rather than constructed; why it needs the method of trial and error, of match-mismatch to trap this elusive prey. Here as in other realms of art equivalence must be tested and criticised, it cannot be easily analyzed step by step and therefore predicted.

We are far removed from what might be called a transformational grammar of forms, a set of rules which allows us to refer the different equivalent structures back to one common deep structure as has been proposed in the analysis of language.²¹

But though such a transformational grammar will always prove a will-of-the-wisp, maybe the problem of portrait equivalence allows us still to go one or two small steps forward. If the problem of likeness is that of the equivalence of the dominant expression, this expression or air must remain the pivot around which all the transformations turn. The different sets of variables must combine to the

²⁰ Françoise Gilot and Carlton Lake, *Life with Picasso* (New York, 1964).

²¹ In a note to my paper on "The Variability of Vision" (C. S. Singleton, ed., *Interpretation, Theory and Practice* (Baltimore, 1969), pp. 62-63) I ventured to compare some interpretative processes in perception with linguistic phenomena investigated by N. Chomsky. I was all the more interested to see that Professor Chomsky was reported in *The New Yorker* of May 8, 1971, p. 65, to compare our disposition to understand facial expression with our linguistic equipment.

same result, it is an equation in which we are confronted with the product of y and x . (Increase y and you must decrease x , or vice versa, if you want the same result.)

There are many areas in perception where this situation obtains. Take size and distance which together produce the retinal size of the image; if other cues are eliminated we cannot tell whether an object seen through a peephole is large and far or near and small, we have no values for x and y , only for the product. Similarly with colour perception, where the resultant sensation is determined by the so-called local colour and the illumination. It is impossible to tell whether the patch of colour seen through a reduction screen is a dark red seen in bright light or a bright red in dim light. Moreover, if we call y the colour and x the light we never have any of these variables neat as it were. We cannot see colour except in light, and therefore that "local colour" which figures in books on painting as "variously modified by light," is a construction of the mind. Yet, though it is logically a construction, we feel quite confident in our experience that we do and can separate the two factors and assign their relative shares to colour and illumination. It is on this separation that the so-called colour constancy is pivoted, just as size constancy is pivoted on our interpretation of the object's real size.

I think that a somewhat analogous situation exists in the perception of physiognomic constancies, even though, as Brunswik told us, the number of variables there is infinitely larger. Granted that they are, I propose as a first approximation to isolate the two sets which I have mentioned before, the mobile and the static ones. Remember the crude analysis of the face as a dial or instrument board in which the mobile features serve as pointers to changing emotions. Toepffer called these features the impermanent traits which he contrasted with the permanent traits, the form or structure of the board itself. In one sense, of course, this analysis is quite unreal. What we experience is the global impression of a face, but in responding to this resultant I would suggest we separate in our mind the permanent (p) from the mobile (m). In real life we are aided in this, as we are aided in the perception of space and of colour by the effect of movement in time. We see the relatively permanent forms of the face standing out against the relatively mobile ones and thus form a provisional estimate of their interaction (pm).

It is this dimension of time, above all, we lack in the interpretation of a still. Like many pictorial problems, the problem of portrait likeness and expression is compounded here, as we have seen, by the artificial situation of arrested movement. Movement always assists in confirming or refuting our provisional interpretations or anticipations, and hence our reading of the static images of art is particularly prone to large variations and contradictory interpretations.

When somebody is disappointed we say "he pulls a long face," an expression vividly illustrated in a German caricature of 1848. Naturally there are people who have a long face, and if they are comedians, they can even exploit this disappointed look to good effect. But if we really want to interpret their expression we must

FIG. 28. Kaspar Braun, *The News of 1848*, in *Fliegende Blätter*

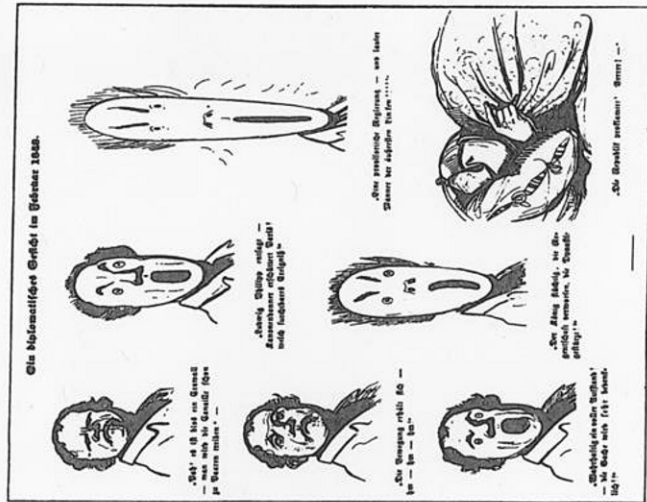


FIG. 29. *Antinous*, Roman sculpture, Naples Museum

assign any feature to one of the two sets of variables p or m , the permanent (p) or the mobile (m), and this separation may sometimes go wrong.

The difficulty in solving this equation may in fact account for the astonishing diversity of interpretations we sometimes encounter in relation to works of art. A whole book was written in the nineteenth century collecting the varying readings of the facial expression of the Roman portraits of Antinous.²² One of the reasons for this divergence may be the difficulty in assigning their place to my two variables. Is Hadrian's favourite slightly pouting his lips, or has he simply got such lips? Given our sensitivity to nuance in such matters the interpretation here will in fact alter the expression.

A glance at the history of physiognomics may help to clarify Ferdinand Laban, *Der Gemütsausdruck des Antinous* (Berlin, 1891). I have attempted to document the wide range of interpretation of works of art in "Botticelli's Mythologies," *Journal of the Warburg and Courtauld Institutes* VIII (1945), 11-12, reprinted in *Symbolic Images* (London, 1972), pp. 204-6; and in "The Evidence of Images," Singleton, ed., *Interpretation*, as quoted above, note 21.

this discussion a little further. Originally physiognomics was conceived as the art of reading character from the face, but the features to which it paid attention were exclusively the permanent traits. Ever since classical antiquity it had mainly relied on the comparison between a human type and an animal species, the aquiline nose showing its bearer to be noble like the eagle, the bovine face betraying his placid disposition. These comparisons, which were first illustrated in the sixteenth century in a book by della Porta,²³ certainly influenced the rising art of portrait caricature because they demonstrated the imperviousness of physiognomic character to a variation of elements. A recognisable human face can look strikingly "like" a recognisable cow.

There is no doubt that this pseudo-scientific tradition relies on a reaction which most of us have experienced. In one of Igor Stravinsky's less charitable conversations he talks of "a worthy woman who naturally and unfortunately looked irate, like a hen, even when in good humour."²⁴ One may quarrel whether hens look irate, maybe peevish would be a better word here, but no one would easily deny that they have an "expression" which an unfortunate woman may share. In terms of our first approximation we may say that the permanent shape of the head (*p*) is interpreted in terms of a mobile expression and that this is the psychological root of the physiognomic superstitution.

Humourists will always exploit this tendency of ours to project a human expression into an animal's head. The camel is seen as supercilious, a bloodhound with its wrinkled forehead looks worried, because if we were supercilious or worried our features would arrange themselves in this way. But here as always it is dangerous to equate inference or interpretation with a deliberate intellectual analysis of clues.²⁵ It is precisely the point that we respond to such configurations more or less automatically and involuntarily though we know perfectly well that the poor camel cannot help its supercilious looks. So deep-seated and instinctual is this response that it

²³ G. B. della Porta, *De humana Physiognomia* (1586).

²⁴ Igor Stravinsky and Robert Craft, *Themes and Episodes*, (New York, 1966), p. 152.

²⁵ See Paul Leyhausen, "Biologie von Ausdruck und Eindruck," in Konrad Lorenz and Paul Leyhausen, *Antriebe tierischen und menschlichen Verhaltens* (Munich, 1968), especially pp. 382 and 394.



FIG. 30. *Physiognomic Comparison*, after G. B. Porta, 1587

pervades one's bodily reactions. Unless introspection deceives me, I believe that when I visit a zoo my muscular response changes as I move from the hippopotamus house to the cage of the weasels. Be that as it may, the human reaction to the permanent features of non-human physiognomies which is so well documented in fables and children's books, in folklore and in art suggests very strongly that our reaction to our fellow creatures is closely linked with our own body image. I am here led back to the old theory of empathy which played such a part at the turn of the century not only in the aesthetics of Lipps and of Vernon Lee but also in the writings of Berenson, Wölfflin, and Worringer. This doctrine relies on the traces of muscular response in our reaction to forms; it is not only the perception of music which makes us dance inwardly, but also the perception of shapes.

Maybe the idea dropped out of fashion partly because people got tired of it, and partly because it was too vaguely and too widely applied. But as far as the perception of expression is concerned I personally have no doubt that our understanding of other people's facial movement comes to us partly from the experience of our own. Not that this formulation solves the mystery which lies in the fact

that we can imitate an expression. How does the baby which responds to its mother's smile with a smile translate or transpose the visual impression sent to its brain through the eyes into the appropriate impulses from the brain to move its own facial muscles in a corresponding way? I suppose the hypothesis would hardly be gainsaid that the disposition to perform this translation from sight to movement is inborn. We do not have to learn smiling in front of a mirror, indeed I would not be surprised if the varying styles of facial expression we all can observe in different nations and traditions were transmitted from generation to generation or from leader to follower by unconscious imitation, by empathy. All this tends to corroborate the hypothesis that we interpret and code the perception of our fellow creatures not so much in visual but in muscular terms.

It may seem somewhat perverse to approach this far-reaching hypothesis by way of our freakish response to the imagined expression of animals, but this would not be the only case where a mal-function has helped to reveal a psychological mechanism. We obviously were not endowed with our capacity for empathy in order to read the souls of the beasts, but to understand our fellow humans. The more they resemble us the more likely will we be able to use our own muscular response as a clue to understanding their moods and emotions. This resemblance is necessary precisely because we will go wrong if we cannot separate our two variables. We must know from experience and perhaps from inborn knowledge what is a permanent trait and what an expressive deviation.

But would this hypothesis help us also to solve the main problem we are after, the detection of that physiognomic constancy which we called the characteristic expression of a person and which Petrarch described as the *aria*? I think it may, if we are ready to amend our first approximation which only recognised the two variables of the permanent and the mobile traits. Once more we may here hark back to the history of physiognomics to gain a leverage. When the crude superstition of animal physiognomics first came under fire in the eighteenth century, its critics, notably Hogarth and his commentator Lichtenberg, rightly stressed the second of my variables.²⁶ It is not the permanent traits which allow us to

²⁶ For these discussions, see Ernst Kris, "Die Charakterköpfe des Franz Xaver Messerschmidt," *Jahrbuch der kunsthistorischen Sammlungen in Wien*, 1932.

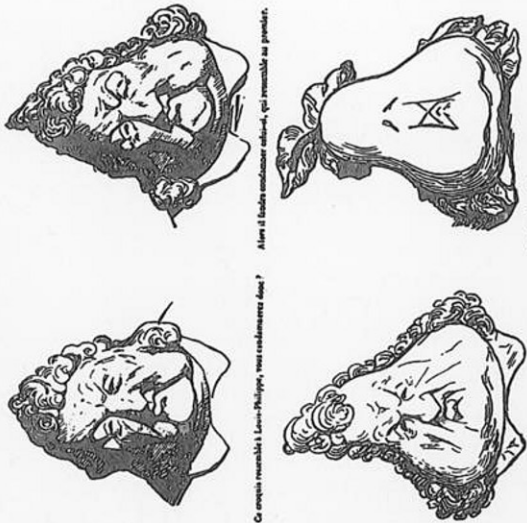
read a character but the expression of emotions. But these mobile expressions, so they argued, gradually mould a face. A person who is frequently worried will acquire a furrowed brow, while a gay one will acquire a smiling face because the transient will pass into permanence. There is something, perhaps, in this commonsense view but it savours too much of eighteenth century rationalism to be fully acceptable. Hogarth, in other words, regards the face in the same light as Locke regards the mind. Both are a *tabula rasa* before individual experiences write their story onto its surface. It would certainly never be possible to arrive from such a view at an explanation of physiognomic constancy. For what this account omits is precisely the object of our quest, whether we call it character, personality, or disposition. It is this all-pervasive disposition which makes one person more prone to worry and another more likely to smile—in other words, every one of these 'expressions' is embedded in an over-all mood or feeling tone. There is a difference between the smile of an optimist and that of a pessimist. Needless to say, these moods in their turn are subject to fluctuations, some are reactions to external events, some reflect inner pressures. But we now begin to see in what respect the two variables of our first approximation were too crude. They failed to take account of the hierarchy that extends from the permanent frame of the body to the fleeting ripple of a mobile expression. Somewhere within this hierarchic sequence we must locate what we experience as the more permanent expression or disposition that constitutes for us such an important element in the "essence" of a personality. It is this, I believe, to which our muscular detector is so suited to respond, for in a sense these more permanent dispositions are probably muscular in their turn.

Once more we may remember that the link between "character" and body build belongs to an age-old belief in human types and human "complexions." If these beliefs do so little justice to the variety and subtlety of human types, this is at least partly due to the poverty of linguistic categories and concepts for the description of the inner as opposed to the external world. We just have no vocabulary to describe the characteristics of a person's attitudinal framework, but that does not mean that we cannot code these experiences in any other way. What is so characteristic and distinctive of a personality is this general tonus, the melody of transition from

LES POIRES,

Étaient le seul d'actualité de Paris par le directeur de la Gazette.
 Vendues pour payer les 6,000 fr. d'amende du journal le *Charivari*.
 (CÉCILE AUBREY, GALERIE VIEUX-BOISY.)

Si pour reconnaître la caricature de Louis-Philippe, vous regardez d'abord le nez, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les yeux, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez la bouche, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les oreilles, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les cheveux, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez le front, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez le menton, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez le cou, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez le corps, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les pieds, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les mains, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les vêtements, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez tout, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire."



Si vous regardez le nez, qui ressemble à une poire, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les yeux, qui sont enfoncés, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez la bouche, qui est ouverte, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les oreilles, qui sont petites, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les cheveux, qui sont bouclés, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez le front, qui est large, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez le menton, qui est pointu, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez le cou, qui est court, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez le corps, qui est mince, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les pieds, qui sont petits, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les mains, qui sont petites, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez les vêtements, qui sont simples, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire." Si vous regardez tout, vous ne pouvez pas vous empêcher de dire: "C'est un nez de poire."

FIG. 31. Charles Philippon, *Les Poirés*, in *Le Charivari*, 1834

achieving this expression of the last phase only by knitting our brows and dropping our cheeks which corresponds to the feel of sluggish malice that belongs to the face from the first. The same is true of the corners of the mouth. In the first picture the mouth still smiles, but the heavy flesh pulls the sides down and creates a response in us—or at least in me—which is perfectly evoked by the scrawled features of the last picture, from which all traces of a false bonhomme have disappeared.

This role of our own bodily reaction in the experience of

given ranges of relaxation to forms of tenseness, and this in its turn will colour a person's speed of reaction, gait, rhythm of speech, and account for instance for that link between personality and handwriting we all feel to exist, whether or not we believe that it can be specified in words. If our own internal computer can somehow integrate these factors in a corresponding state we would know where to look for that invariant that normally survives the changes in a person's appearance. Here, in other words, we may have to look for that unwritten and unwritable formula which links for us Bertrand Russell at four and at ninety, for behind all these variations we sense a common signature tune. It is the same alertness, the same degree of tension and resilience we sense in both positions, and it is this which evokes in us the unique memory of that particular person. In a way, perhaps, the inability of many people to describe the colour of a person's eyes or the shape of a nose however well they may know him, constitutes a negative confirmation of this role of empathy.

If this hypothesis could be established, the same unity of response might also account for the experience of likeness in portrait and caricature across the variations and distortions we have observed. Indeed we may now be in the position to return to that paradigm of the caricaturist's trick which I discussed but did not explain in *Art and Illusion*.²⁷ It is the famous pictorial defence by the caricaturist Philippon who had been fined 6,000 F for having lampooned King Louis Philippe as a *poire*, a fathead, and pretended to ask for which step in this inevitable transformation he was to be punished? Though reactions of this kind are not easily verbalised it may still be possible to describe the likeness that is felt to exist between these stages in muscular rather than in purely visual terms.

Take the eyes which radically change their size, position, and even slant from the first picture to the last. Clearly by moving them together and increasing their steepness they are made to take over also the indication of the frowning forehead which increases in the third picture, only to be omitted as redundant in the last where we are made to feel the frown in the evil eyes of the *poire*. Regarding them as pointers for muscular movements, we can imagine ourselves

²⁷ See *Art and Illusion*, loc. cit.

equivalence may also help to account for the outstanding feature of caricature, its tendency to distortion and exaggeration: for our inner sense of dimensions differs radically from our visual perception of proportion. The inner sense always exaggerates. Try to move the tip of your nose downward and you will feel you have acquired a very different nose while the actual movement you achieved was probably no more than a fraction of an inch. How much the scale of our internal map differs from that of the eye is best (and most painfully) experienced at the dentist's when the tooth he belabours assumes rather gigantic proportions. No wonder the caricaturist or expressionist who relies on his inner sense will tend to alter the scales; he can do so without impairing the sense of identity if we can share his reactions in front of the same image.

Such a theory of empathy or sympathetic response does not preclude the misunderstanding of expressions. On the contrary, it helps to explain it. If Louis Philippe had been a Chinese, the slant of his eyes would have meant something different, but empathy might also have let us down in interpreting its exact nuance.

No doubt empathy does not offer a total explanation of our physiognomic reactions. It may not account for the impression of a narrow forehead as a sign of stupidity, nor is it clear whether this particular response is acquired or inborn, as Konrad Lorenz has postulated other physiognomic reactions to be.²⁸

But whatever the limitations of the hypothesis here put forward, the student of art can at least contribute one observation from the history of portrait painting which strongly suggests that empathy does play a considerable part in the artist's response—it is the puzzling obtrusion of the artist's own likeness into the portrait. When the Prussian ambassador to England, Wilhelm von Humboldt, was painted by Sir Thomas Lawrence in 1828, his daughter reported after a visit to the master's studio that the upper half of the face, forehead, eyes and nose were much better than the lower half which was much too rosy and which, by the way, resembled Lawrence, as (she found) did all his portraits.²⁹ It may not be easy

²⁸ For a summary and illustration, see N. Tinbergen, *The Study of Instinct* (Oxford, 1951), pp. 208-9.

²⁹ Gabriele von Bülow, *Ein Lebensbild* (Berlin, 1895), p. 222. For the same tendency, see also my paper "Leonardo's Grotesque Heads," in A. Marazza, ed., *Leonardo, Saggi e Ricerche* (Rome, 1954).

at this distance of time to test this interesting observation, but the situation is different with a great contemporary master of portraiture, Oskar Kokoschka. Kokoschka's self-portraits testify to his grasp of his essential features, the face with its long distance between nose and chin. Many of Kokoschka's heads have these proportions, including his impressive portrait of Thomas Masaryk whose photographs show a different relation between the upper and the lower half of the face. Objectively, therefore, the likeness may be faulted, but it may still be true that the same power of empathy and projection which is here at work also gives the artist special insights which are denied to artists who are less involved.

It is not frequent for an art historian to be in the position of offering supporting evidence for such a general hypothesis, but it so happens that I had the privilege of listening to Kokoschka when he spoke of a particularly difficult portrait commission he had received some time past. As he spoke of the sitter whose face he found so hard to unridle he automatically pulled a corresponding grimace of impenetrable rigidity. Clearly for him the understanding of another person's physiognomy took the way over his own muscular experience.

Paradoxically this involvement and identification here exerts the opposite pull from that we observed in the recognition and creation of types. Here it was the deviation from the norm, the degree of distance from the self that was found decisive. The extreme, the abnormal sticks in the mind and marks the type for us. Maybe the same mechanism operates in those portrait painters who are quick in seizing a characteristic trait without seeking much empathy. These would not be self-projectors like Kokoschka, but rather self-detachers or distancers (if there is such a word), but both of them could pivot their art on their self.

The very greatest of portrait painters probably must have access to both the mechanisms of projection and differentiation and have learnt to master them equally. It surely is no accident that a Rembrandt never ceased throughout his life to study his own face in all its changes and all its moods. But this intense involvement with his own features clarified rather than clouded his visual awareness of his sitter's appearance. There is an outstanding variety of physiognomies in Rembrandt's portrait oeuvre, each of his portraits capturing a different character.



FIG. 32. *Oskar Kokoschka*, photograph, Press Association Ltd.

Should we here speak of character? One of the leading portrait painters of our own day once remarked to me that he never knew what people meant when they talked about the painter revealing the character of the sitter. He could not paint a character, he could only paint a face. I have more respect for this stringent opinion of a real master than I have for the sentimental talk about artists painting souls, but when all is said and done a great portrait—including some by that painter—does give us the illusion of seeing the face behind the mask.

It is quite true that we know next to nothing of the character of most of Rembrandt's sitters. But what has captivated art lovers who have stood in front of the greatest portraits of our artistic heritage is the impression of life that emanates from them. A surpassing masterpiece, such as Velazquez's great portrait of Pope Innocence X, never looks arrested in one pose, it seems to change in front of our eyes as if it offered a large variety of readings, each of them coherent and convincing. And yet this refusal to freeze into a



FIG. 33. *Thomas G. Masaryk*, by Oskar Kokoschka, Pittsburgh Carnegie Institute



FIG. 34. *Thomas G. Masaryk*, photograph, 1935

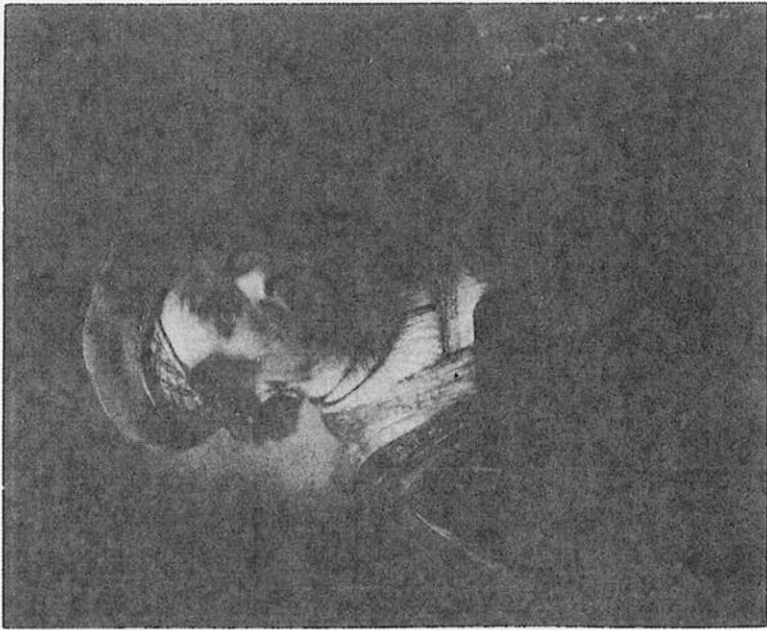


FIG. 35. *Rembrandt, self-portrait.*
Washington, D.C., National Gallery of Art, Widener
Collection

mask and settle into one rigid reading is not purchased at the expense of definition. We are not aware of ambiguities, of undefined elements leading to incompatible interpretations, we have the illusion of a face assuming different expressions all consistent with what might be called the dominant expression, the air of the face. Our projection, if one may use this chilling term, is guided by the artist's understanding of the deep structure of the face, which

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FIG. 36. *The Philosopher, by Rembrandt.*
Washington, D.C., National Gallery of Art, Widener
Collection

allows us to generate and test the various oscillations of the living physiognomy. At the same time we have the feeling that we really perceive what is constant behind the changing appearance, the unseen solution of the equation, the true colour of the man.³⁰ All

³⁰ What I wish to suggest, but cannot prove, is that Velazquez was able to solve the very problem which Orpen (quoted above, note 8) considered unsurmountable.

45 THE MASK AND THE FACE

JULIAN HUCHEBERG

the representation of things and people

The study of pictures and the study of psychology as a scientific inquiry have long been intertwined. As our understanding of the processes of perception and learning has increased, we have had to alter our view of how pictorial communication takes place; conversely, various pictures and sketches, ranging from the early experiments with perspective drawing, through the Gestaltists' explorations of the laws of grouping, to the inconsistent drawings of Escher and Albers, have had profound implications for the study of visual perception.

In this paper, I shall try to bring current perceptual theory to bear on some of the issues that have been raised in the context of pictorial theory. First, however, we shall go back to daVinci's early experiments on pictorial representations, and to the ways in which the two classical schools of perceptual theory dealt with the problems posed by those experiments. Leonardo offered the following method to discover the techniques by which pictures could be made:

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FIG. 37. *Pope Innocence X*, by Diego Velazquez.
Rome, Galleria Doria

these are inadequate metaphors, but they suggest that there may be something, after all, in the old Platonic claim, so succinctly expressed in Max Liebermann's retort to a dissatisfied sitter—"this painting, my dear Sir, resembles you more than you do yourself."