tion contrasts with denotation rather than with representation. We saw that fictive representation and also representation-as are matters of exemplification; and representation in the arts is seldom explicitly factual and otherwise purely denotational. Moreover, an aesthetic experience need not exhibit all four symptoms.

The four symptoms probably tend to be present rather than absent, and to be prominent in aesthetic experience: but any of them may be absent from aesthetic or present in nonaesthetic experience. The symbolic vehicle of the literary arts, for example, is not syntactically dense, while the gauging of weights or temperatures may be dense both syntactically and semantically. Absence of some aesthetic or presence of some nonaesthetic symptom does not make for an aesthetically less pure totality, nor is an experience the more aesthetic the higher the concentration of aesthetic symptoms. Yet if the four symptoms listed are severally neither sufficient nor necessary for aesthetic experience, they may be conjunctively sufficient and disjunctively necessary; perhaps, that is, an experience is aesthetic if it has all these attributes and only if it has at least one of them.

I am not claiming that this proposal conforms faithfully to ordinary usage. Presystematic usage of "aesthetic" and "nonaesthetic" is even less clearly established by practice, and more seriously infected with inept theorizing, than in the case of most terms. I am rather suggesting that we have here an appropriate use for a badly abused pair of terms. Density, repleteness, and exemplification, then, are earmarks of the aesthetic; articulateness, attenuation, and denotation, earmarks of the nonaesthetic. A vague and yet harsh di-

chotomy of experiences gives way to a sorting of features, elements, and processes. Classification of a totality as aesthetic or nonaesthetic counts for less than identification of its aesthetic and nonaesthetic aspects. Phases of a decidedly aesthetic compound may be utterly nonaesthetic; for example, a score and its mere reading are devoid of all aesthetic aspects. On the other hand, aesthetic features may predominate in the delicate qualitative and quantitative discrimination required in testing some scientific hypotheses. Art and science are not altogether alien.

The distinction here drawn between the aesthetic and the nonaesthetic is independent of all considerations of aesthetic value. That is as it should be. An abominable performance of the London Symphony is as aesthetic as a superb one; and Piero's Risen Christ is no more aesthetic but only better than a hack's. The symptoms of the aesthetic are not marks of merit; and a characterization of the aesthetic neither requires nor provides a definition of aesthetic excellence.

6. The Question of Merit

Folklore has it that the good picture is pretty. At the next higher level, "pretty" is replaced by "beautiful", since the best pictures are often obviously not pretty. But again, many of them are in the most obvious sense ugly. If the beautiful excludes the ugly, beauty is no measure of aesthetic merit; but if the beautiful may be ugly, then "beauty" becomes only an alternative and misleading word for aesthetic merit.

Little more light is shed by the dictum that while sci-

ence is judged by its truth, art is judged by the satisfaction it gives. Many of the objections urged earlier against satisfaction, yielded or anticipated, as a distinguishing feature of the aesthetic weigh also against satisfaction as a criterion of aesthetic merit: satisfaction cannot be identified with pleasure, and positing a special aesthetic feeling begs the question. We are left with the unhelpful formula that what is aesthetically good is aesthetically satisfactory. The question is what makes a work good or satisfactory.

Being satisfactory is in general relative to function and purpose. A good furnace heats the house to the required temperature evenly, economically, quietly, and safely. A good scientific theory accounts for the relevant facts clearly and simply. We have seen that works of art or their instances perform one or more among certain referential functions: representation, description, exemplification, expression. The question what constitutes effective symbolization of any of these kinds raises in turn the question what purpose such symbolization serves.

An answer sometimes given is that exercise of the symbolizing faculties beyond immediate need has the more remote practical purpose of developing our abilities and techniques to cope with future contingencies. Aesthetic experience becomes a gymnasium workout, pictures and symphonies the barbells and punching bags we use in strengthening our intellectual muscles. Art equips us for survival, conquest, and gain. And it channels surplus energy away from destructive outlets. It makes the scientist more acute, the merchant more astute, and clears the streets of juvenile delinquents. Art, long derided as the idle

amusement of the guiltily leisure class, is acclaimed as a universal servant of mankind. This is a comforting view for those who must reconcile aesthetic inclinations with a conviction that all value reduces to practical utility.

More lighthearted and perhaps more simpleminded is the almost opposite answer: that symbolization is an irrepressible propensity of man, that he goes on symbolizing beyond immediate necessity just for the joy of it or because he cannot stop. In aesthetic experience, he is a puppy cavorting or a well-digger who digs doggedly on after finding enough water. Art is not practical but playful or compulsive. Dogs bark because they are canine, men symbolize because they are human; and dogs go on barking and men go on symbolizing when there is no practical need just because they cannot stop and because it is such fun.

A third answer, bypassing the issue over practicality versus fun, points to communication as the purpose of symbolizing. Man is a social animal, communication is a requisite for social intercourse, and symbols are media of communication. Works of art are messages conveying facts, thoughts, and feelings; and their study belongs to the omnivorous new growth called 'communications theory'. Art depends upon and helps sustain society—exists because, and helps ensure, that no man is an island.

Each of these explanations—in terms of gymnastics, play, or conversation—distends and distorts a partial truth. Exercise of the symbolizing skills may somewhat improve practical proficiency; the cryptographic character of symbol invention and interpretation does give them the fasci-

nation of a game; and symbols are indispensable to communication. But the lawyer or admiral improving his professional competence by hours in museums, the cavorting puppy, the neurotic well-digger, and the woman on the telephone do not, separately or together, give the whole picture. What all three miss is that the drive is curiosity and the aim enlightenment. Use of symbols beyond immediate need is for the sake of understanding, not practice; what compels is the urge to know, what delights is discovery, and communication is secondary to the apprehension and formulation of what is to be communicated. The primary purpose is cognition in and for itself; the practicality, pleasure, compulsion, and communicative utility all depend upon this.

Symbolization, then, is to be judged fundamentally by how well it serves the cognitive purpose: by the delicacy of its discriminations and the aptness of its allusions; by the way it works in grasping, exploring, and informing the world; by how it analyzes, sorts, orders, and organizes; by how it participates in the making, manipulation, retention, and transformation of knowledge. Considerations of simplicity and subtlety, power and precision, scope and selectivity, familiarity and freshness, are all relevant and often contend with one another; their weighting is relative to our interests, our information, and our inquiry.

So much for the cognitive efficacy of symbolization in general, but what of aesthetic excellence in particular? Distinguishing between the aesthetic and the meritorious cuts both ways. If excellence is not required of the aesthetic, neither is the excellence appropriate to aesthetic

objects confined to them. Rather, the general excellence just sketched becomes aesthetic when exhibited by aesthetic objects; that is, aesthetic merit is such excellence in any symbolic functioning that, by its particular constellation of attributes, qualifies as aesthetic. This subsumption of aesthetic under cognitive excellence calls for one more reminder that the cognitive, while contrasted with both the practical and the passive, does not exclude the sensory or the emotive, that what we know through art is felt in our bones and nerves and muscles as well as grasped by our minds, that all the sensitivity and responsiveness of the organism participates in the invention and interpretation of symbols.

The problem of ugliness dissolves; for pleasure and prettiness neither define nor measure either the aesthetic experience or the work of art. The pleasantness or unpleasantness of a symbol does not determine its general cognitive efficacy or its specifically aesthetic merit. Macbeth and the Goya Witches' Sabbath no more call for apology than do Pygmalion and the Botticelli Venus.

The dynamics of taste, often embarrassing to those who seek inflexible standards of immutable excellence, also become readily understandable. After a time and for a time, the finest painting may pall and the greatest music madden. A work may be successively offensive, fascinating, comfortable, and boring. These are the vicissitudes of the vehicles and instruments of knowledge. We focus upon frontiers; the peak of interest in a symbol tends to occur at the time of revelation, somewhere midway in the passage from the obscure to the obvious. But there is endurance

VI,6

and renewal, too. Discoveries become available knowledge only when preserved in accessible form; the trenchant and laden symbol does not become worthless when it becomes familiar, but is incorporated in the base for further exploration. And where there is density in the symbol system, familiarity is never complete and final; another look may always disclose significant new subtleties. Moreover, what we read from and learn through a symbol varies with what we bring to it. Not only do we discover the world through our symbols but we understand and reappraise our symbols progressively in the light of our growing experience. Both the dynamics and the durability of aesthetic value are natural consequences of its cognitive character.

Like considerations explain the relevance to aesthetic merit of experience remote from the work. What a Manet or Monet or Cézanne does to our subsequent seeing of the world is as pertinent to their appraisal as is any direct confrontation. How our lookings at pictures and our listenings to music ⁹ inform what we encounter later and elsewhere is integral to them as cognitive. The absurd and awkward myth of the insularity of aesthetic experience can be scrapped.

The role of theme and variation—common in architecture and other arts as well as in music—also becomes intelligible. Establishment and modification of motifs, abstraction and elaboration of patterns, differentiation and interrelation of modes of transformation, all are processes of constructive search; and the measures applicable are not those of passive enjoyment but those of cognitive efficacy: delicacy of discrimination, power of integration, and justice of proportion between recognition and discovery. Indeed, one typical way of advancing knowledge is by progressive variation upon a theme. Among modern composers, theme and variation along with all recognizable pattern is sometimes scorned, and maximum unpredictability is the declared aim; but, as C. I. Lewis pointed out, 10 complete irregularity is inconceivable—if no sequence is ever repeated in a given composition, that fact in itself constitutes a notable regularity.

Aesthetic merit, however, has by no means been my main concern in this book, and I am somewhat uncomfortable about having arrived at an incipient definition of what is often confusingly called 'beauty'. Excessive concentration on the question of excellence has been responsible, I think, for constriction and distortion of aesthetic inquiry.¹¹ To say that a work of art is good or even to say how good it is does not after all provide much information, does not tell us whether the work is evocative, robust, vibrant, or exquisitely designed, and still less what are its salient specific qualities of color, shape, or sound. More-

261

260

⁹ Music can inform perception not only of other sounds but also of the rhythms and patterns of what we see. Such cross-transference of structural properties seems to me a basic and important aspect of learning, not merely a matter for novel experimentation by composers, dancers, and painters.

¹⁰ Mind and the World Order (New York, Charles Scribner's Sons, 1929), p. 385.

¹¹ Cf. my "Merit as Means" in Art and Philosophy, ed. S. Hook (New York, New York University Press, 1966), pp. 56-57.

over, works of art are not race-horses, and picking a winner is not the primary goal. Rather than judgments of particular characteristics being mere means toward an ultimate appraisal, judgments of aesthetic value are often means toward discovering such characteristics. If a connoisseur tells me that one of two Cycladic idols that seem to me almost indistinguishable is much finer than the other, this inspires me to look for and may help me find the significant differences between the two. Estimates of excellence are among the minor aids to insight. Judging the excellence of works of art or the goodness of people is not the best way of understanding them. And a criterion of aesthetic merit is no more the major aim of aesthetics than a criterion of virtue is the major aim of psychology.

In short, conceiving of aesthetic experience as a form of understanding results both in resolving and in devaluing the question of aesthetic value.

7. Art and the Understanding

In saying that aesthetic experience is cognitive experience distinguished by the dominance of certain symbolic characteristics and judged by standards of cognitive efficacy, have I overlooked the sharpest contrast: that in science, unlike art, the ultimate test is truth? Do not the two domains differ most drastically in that truth means all for the one, nothing for the other?

Despite rife doctrine, truth by itself matters very little in science. We can generate volumes of dependable truths at will so long as we are unconcerned with their importance; the multiplication tables are inexhaustible, and empirical truths abound. Scientific hypotheses, however true, are worthless unless they meet minimal demands of scope or specificity imposed by our inquiry, unless they effect some telling analysis or synthesis, unless they raise or answer significant questions. Truth is not enough; it is at most a necessary condition. But even this concedes too much; the noblest scientific laws are seldom quite true. Minor discrepancies are overridden in the interest of breadth or power or simplicity. Science denies its data as the statesman denies his constituents—within the limits of prudence.

Yet neither is truth one among competing criteria involved in the rating of scientific hypotheses. Given any assemblage of evidence, countless alternative hypotheses conform to it. We cannot choose among them on grounds of truth; for we have no direct access to their truth. Rather, we judge them by such features as their simplicity and strength. These criteria are not supplemental to truth but applied hopefully as a means for arriving at the nearest approximation to truth that is compatible with our other interests.

Does this leave us with the cardinal residual difference that truth—though not enough, not necessary, and not a touchstone for choosing among hypotheses—is nevertheless a consideration relevant in science but not in art? Even so meek a formulation suggests too strong a contrast.

VI,7

¹² See my "Science and Simplicity" in *Philosophy of Science Today*, ed. S. Morgenbesser (New York, Basic Books, Inc., 1967), pp. 68-78.

Truth of a hypothesis after all is a matter of fit—fit with a body of theory, and fit of hypothesis and theory to the data at hand and the facts to be encountered. And as Philipp Frank liked to remind us, goodness of fit takes a twoway adjustment-of theory to facts and of facts to theory -with the double aim of comfort and a new look. But such fitness, such aptness in conforming to and reforming our knowledge and our world, is equally relevant for the aesthetic symbol. Truth and its aesthetic counterpart amount to appropriateness under different names. If we speak of hypotheses but not of works of art as true, that is because we reserve the terms "true" and "false" for symbols in sentential form. I do not say this difference is negligible, but it is specific rather than generic, a difference in field of application rather than in formula, and marks no schism between the scientific and the aesthetic.

None of this is directed toward obliterating the distinction between art and science. Declarations of indissoluble unity—whether of the sciences, the arts, the arts and sciences together, or of mankind—tend anyway to focus attention upon the differences. What I am stressing is that the affinities here are deeper, and the significant differentia other, than is often supposed. The difference between art and science is not that between feeling and fact, intuition and inference, delight and deliberation, synthesis and analysis, sensation and cerebration, concreteness and abstraction, passion and action, mediacy and immediacy, or truth and beauty, but rather a difference in domination of certain specific characteristics of symbols.

The implications of this reconception may go beyond philosophy. We hear a good deal about how the aptitudes and training needed for the arts and for the sciences contrast or even conflict with one another. Earnest and elaborate efforts to devise and test means of finding and fostering aesthetic abilities are always being initiated. But none of this talk or these trials can come to much without an adequate conceptual framework for designing crucial experiments and interpreting their results. Once the arts and sciences are seen to involve working with-inventing, applying, reading, transforming, manipulating-symbol systems that agree and differ in certain specific ways, we can perhaps undertake pointed psychological investigation of how the pertinent skills inhibit or enhance one another; and the outcome might well call for changes in educational technology. Our preliminary study suggests, for example, that some processes requisite for a science are less akin to each other than to some requisite for an art. But let us forego foregone conclusions. Firm and usable results are as far off as badly needed; and the time has come in this field for the false truism and the plangent platitude to give way to the elementary experiment and the hesitant hypothesis.

Whatever consequences might eventually be forthcoming for psychology or education would in any case count as by-products of the theoretical inquiry begun here. My aim has been to take some steps toward a systematic study of symbols and symbol systems and the ways they function in our perceptions and actions and arts and sciences, and thus in the creation and comprehension of our worlds.