

Reviews and Discussion

E.H. Gombrich. *The Sense of Order: A Study in the Psychology of Decorative Art.* Ithaca, N.Y.: Cornell University Press, 1979. 411 pp., illustrations. \$38.50.

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The Sense of Order and the Perils of Explanation¹

Would Martians have wallpaper? Perhaps they would, according to the deliberations of E. H. Gombrich in his intellectually and visually impressive new book, *The Sense of Order: A Study in the Psychology of Decorative Art*. Not that Gombrich ever writes about Martians. His explicit concern is with the human perceiver and maker of decorative design. Nonetheless, if we read Gombrich for his essential logic rather than only his earthbound subject, he seems to say something about Martians, too.

The first thing to be understood is that *The Sense of Order* undertakes several missions at once. It gives us a history of attitudes toward ornament, documenting many degrees of approbation and condemnation up to the severe verdict of Alfred Loos, who, in a 1908 essay, damned ornament as primitive, criminal, and degenerate and urged that functionalism govern appearance. *The Sense of Order* provides a tour of the variety of decoration, ranging from the simple and subtle statement of a Japanese bowl to the numbing intricacy of the Alhambra. The book samples the history of ornamentation, tracking the evolution of ornamental motifs; for example, the survival and spread of the modeled face of a lion with a ring in its mouth 2500 years ago in the mind of a Greek artist. Whatever the theme, the points are profusely illustrated by photographs and drawings in the text, an extensive section of larger black-and-white photographs, and a number of color plates. Gombrich is determined to have us see what he means.

But of all these missions, the most vigorous, and the one which subsumes the others, is the quest for explanation. Gombrich is a determined explicator. He wants to account for our responsiveness to ornament in terms of the nature of knowledge and the process of obtaining knowledge. He wants to explain the shift away from elaborate ornamentation with the advent of the machine age, which, by making mechanical reproduction possible devalued complexity. He wants to account for the heights of ornamental elaboration as products of an evolving craft rather than as the abrupt inventions of individuals. He even tries his hand at explaining why vertical stripes make for thinness, and horizontal for fatness. Gombrich by no means invents all such accounts; he often discourses on the ideas of others, making a judicious selection. But one way or

another, his commitment to explanation in an area as psychologically messy as the arts is striking.

In fact, this emphasis suggests an approach to understanding *The Sense of Order* better and appraising its success: What sorts of explanations are offered, and just how adequate are they? Such questions are best pondered after a brief explanation of explanation itself. Israel Scheffler (1963), in part of his *The Anatomy of Inquiry*, clarifies what an explanation ought to accomplish. Here, only the barest sketch can be given. In general, explanation means subsuming the event to be explained under laws or principles. On the one hand, the principles must be sound for a sound explanation. On the other, the principles, plus particular conditions specific to the occasion, should deductively imply the event. For example, the properties of phosphorus, plus conditions on the rate, force, and so on, of striking a match on a particular occasion, imply that the match would light, and so explain the event. In fact, informal explanations often are elliptical, omitting some conditions that would be required for strict deduction. Sometimes this merely signifies the absence of premises that could be provided readily enough; at others it signifies a fundamentally incomplete account, one which would require serious investigation to fill out and finally deny or affirm. Since Gombrich, of course, does not write in the formal language of logic, the question becomes whether his explanations, bolstered by reasonable and ready assumptions, really imply what they try to explain.

Gombrich's Basic Concepts

This obvious danger in a book with a title like *The Sense of Order* is that no good account could be given of so fuzzy-sounding a concept. Indeed, Gombrich himself runs shy of stating just what sorts of order he means:

I certainly would not venture to define the concept of order I use in the main title of this book, but I trust it will bring out the feature which interests me in decorative design. The arrangement of elements according to similarity and difference and the enjoyment of repetition and symmetry extend from the string of beads to the layout of the page in front of the reader, and, of course, beyond to the rhythms of movement, speech and music, not to mention the structures of society and the systems of thought. [p. x]

Instead of a definition we get a tour. However, vague boundaries or not, Gombrich's sense of order turns out to have a more substantial center to it than one might at first think.

Gombrich bases his sense of order on Karl Popper's analysis of scientific inquiry, opening his introduction with a quote from the philosopher: "It was first in animals and children, but later also in adults,

that I observed the immensely powerful *need for regularity*—the need which makes them seek for regularities” (p. 1). In Popper’s concept of inquiry, as adopted by Gombrich, understanding is a product not just of an order-seeking, but an order-presuming, process, in which simple orderings are hypothesized until disconfirmed by later experience. The world is known, so far as it can be known, through active exploration based on hypotheses revised only as they conflict with new data. Furthermore, it seems that organisms have to proceed in this way most of the time, for to behave otherwise would waste too much time and energy on needless hypothesizing or would ignore counterevidence. A third alternative, to depend on direct knowledge of the world, is ultimately unintelligible, no real alternative at all. Gombrich stresses, in company with contemporary psychologists interested in perception—Ulrich Neisser and Richard Gregory, for instance—that this hypothesis-making, order-oriented way of proceeding, and the love of order that accompanies it, must operate as much at the perceptual level as at the level of extended intellectual inquiry.

But, paradoxically, while order is precious, so is disorder. According to Popper, disconfirmation strongly informs, by decisively knocking out hypotheses, that confirmation can never inform by letting pass hypotheses which might later prove faulty. To make the most of its capacity to presume orderliness, the inquiring organism must be predisposed to seek out breaks in the order—to put the hypothesis at risk and see how it fares. This stands behind what Gombrich calls “the most basic fact of aesthetic experience, the fact that delight lies somewhere between boredom and confusion” (p. 9).

Returning to the question of explanation: Are the principles of order-hypothesizing and disconfirmation-seeking, which are founded, on a thoughtful account of the nature of knowledge, adequate to explain the human attraction to decorative design? No doubt there is room for debate, but at least the explanatory principles have some backing, and perhaps they do imply an attraction to decoration. The intelligent organism, like the most ignorant amoeba, will have to proceed according to Popper’s epistemology. We can assume that this intelligent organism will have drives, and accompanying emotions, which move it to apply the hypothesis-making strategy perceptually and in other ways, else it would never have become intelligent. We can assume the intelligent organism will have the power to arrange things and make things. So, for any intelligent organism, some sort of patterning would be bound to stimulate its Popperian mind simply as pattern, and, being intelligent, motivated, and capable, the organism would make such things to enjoy them. In short, Martians *would* have wallpaper, or some unearthly equivalent, though of course we humans might not like it at all.

Now I’m well aware that some of the assumptions leading to this conclusion could be challenged. But the important point here is that Popper’s epistemology does seem to imply Gombrich’s sense of order, especially the responsiveness to pattern that it articulates. If the implication is not strict, neither is it far-fetched, and Gombrich’s sense of order comes closer to satisfying the deductive requirement for explanation than at first seems probable.

Another explanatory concept Gombrich employs is habit. Gombrich notes that under the influence of habit decorations have changed slowly. Radical invention is nonexistent, considerable invention the exception, and the gradual evolution of decorative motifs, some of which can be traced back for millenia, the rule. Gombrich draws an analogy here to the role of schemata in representational art and their gradual development, as discussed in his *Art and Illusion*. But he notes a contrast as well. Where the quest for realism gave the development of those representational schemata a definite direction, the influences on decorative schemata have been much more diffuse, and a unified account of why decorations have changed as they have becomes difficult. Nonetheless, Gombrich explores various approaches.

Although habit extends Gombrich’s explanatory argument, it is more a corollary than an addition to it, for, as he points out, “The force of habit may be said to spring from the sense of order” (p. 171). Habit really amounts to a temporal sense of order analogous to the spatial sense of order exhibited in wallpaper and fluted columns for example. That today’s world will be more or less like yesterday’s is the hypothesis the perceiver projects, the hypothesis that allows him to make sense of a world which otherwise would be cluttered and confusing. “In the study of perception,” Gombrich says, “the force of habit makes itself felt in the greater ease with which we take in the familiar” (p. 171). Presumably, in analogy to the spatial sense of order, this hypothesis is also one which the perceiver expects will be a little bit disconfirmed.

But does Gombrich’s basic idea really explain the role of habits? In particular, does it imply that habits are required? Why couldn’t some creature—our Martian, say—instead of relying on a repertoire of standard schemata, extrapolate the individual experiences of the past to directly comprehend current events, much as we, in perceiving the symmetry of a design, extrapolate from one side of the design to the other? The answer is practical, rather than epistemological. While the sense of order per se arises because the organism must, logically, proceed by hypotheses, habits arise because the organism must, in all practicality, crystallize some of those hypotheses into habits. The amount of computation required to match past experiences, unsorted, uncategorized, unschematized, against current ones for a “good fit” would be un-

manageable. Gombrich himself does not make this argument, but the basic explanatory construct again tends to imply the phenomena it is invoked to explain—the force of habit and, in turn, the gradual evolution of decorative designs.

Perhaps here is a good place to ask: Why all this philosophy? Why spend so many sentences examining the abstract force of Gombrich's explanatory apparatus? The reason is that I think this clarifies Gombrich's ambition, even though I have made it more explicit than he. Gombrich is very concerned to offer really basic explanations. He persistently tries to account for the perceptual phenomena associated with decorative design in terms fundamental to our understanding of what it is to be an intelligent organism. Gombrich in effect assaults the barrier between the touchy-feely world of aesthetics and the tough business of practical intelligence, seeking to root the one in the other, as of course other authors have done in their own ways. Furthermore, he has not done badly at it.

Some Points of Order

Of course, not all characteristics of human aesthetic response will stem from basic principles of intelligent information processing. For one thing, the human organism seems too much an accident, too much one intelligence among possible others that might use the same principles in different ways and prove responsive to somewhat different patterns. As noted before, the Martian's wallpaper needn't please us at all. Gombrich is well aware of such limits, and emphasizes how little one can predict about the effects on the viewer of a visual design: Bigger or smaller, chosen to be familiar or unfamiliar, presented in times of one fashion or another, the same design may inspire radically different reactions. Gombrich could, of course, have said that this, too, is part of the sense of order, order over time, within culture, and so on. But, laudably, he refrains. The problem is that any effects of size, culture, and so on could be accommodated just as well as any other. This is the same as saying that the implication condition emphasized earlier fails, the sense of vacuousness we get from such explanations apparently reflecting the failure.

The existence of such general problems does not mean that Gombrich refrains from offering explanations for particular phenomena, however. On the contrary, he usually tries. One interesting example is his notion of what he calls a "field of force," in metaphorical, but only metaphorical, reference to the thinking of the Gestaltists. Gombrich's field of force concerns arrangements with a center and a decorative border and emphasizes two effects: those things constituting a design in the border tend to lose their individual qualities and to direct attention toward the cen-

ter; those things in the center, on the other hand, tend to have their individual qualities emphasized. Gombrich illustrates this with numerous examples, perhaps most charmingly by a cake decorated with cherries. The cherries around the rim seem less flavorful morsels and more a frame. However, "The cherry in the centre of the cake is very much a cherry" (p. 156).

What about our principle of deduction? Does Gombrich's field of force concept pass this test of explanatory adequacy? Yes, it does. The field of force simply posits general characteristics of situations where there are a center and a border and makes deductive predictions in individual cases like the cake. The particular is subsumed under and implied by the general. Put this way, the field of force is simply a low-level inductive generalization, much narrower than Gombrich's overriding sense of order, and not grounded in the basic character of an intelligent organism. But explanation it still is.

However, this will not do for Gombrich. He is determined to relate the field of force to his sense of order. His efforts afford a good opportunity both to explore cautiously the vertical architecture of his concepts and to test whether the details are as sturdy as the broad structure seems. So again, we start from the field of force. The weakened identity of elements on a border is in fact one example of a more general phenomenon: the weakened identity of any repeated unit in a large design. Gombrich discusses this phenomenon extensively, noting, for example, how the multiple faces of Andy Warhol's *Marilyn Monroe* become drained of identity. Gombrich elsewhere asserts a related notion, that scanty apprehension of individual parts is inherent to the nature of design. "To expect that we read every motif in the Alhambra as we read a book is not only unrealistic. It is contrary to the spirit of decoration, which offers us a feast for the eye without demanding that we should taste of every dish" (p. 103). Gombrich has this to say about how the perceiver normally encounters a design: "Faced with an array of identical objects . . . we rapidly form the preliminary hypothesis that we are confronted with a lawful assembly, and we need only sample the elements for redundancies by sweeping our eye along the whole series and just taking in one repeating component" (p. 151). All of this, of course, relates to the overarching Popperian view.

Gombrich's conceptual notions certainly relate to one another and certainly help us assemble a coherent conception of the perceptual response to decorative design. However, they do not quite relate to one another in an explanatory way. Consider, for example, the connection between the field of force and the more general vitiation of identity that comes with patterned repetition. The latter implies the weakened individuality of the border elements in the field of force, but does not at all imply the enhancement of the center. Gombrich makes an effort to bridge this gap, suggest-

ing that the enhancement of the center might follow from the tendency of the viewer to survey the order in the most effective way: "In the kaleidoscope the radial symmetry pulls the eye toward the centre from which redundancies are most easily surveyed." The suggestion seems to be that Gombrich's general concepts, plus an efficiency principle, send the eye to the center. But are redundancies in fact most efficiently surveyed from the center? Symmetries seem most easily sampled by skipping the center and fixating the sides alternately. To sample the redundancies of cyclic repetition in the border design, one would best scan around the periphery rather than making multiple trips from the center to various points on the border. True, the entire border is kept in peripheral view best by fixating the center. Perhaps that peripheral view provides all the sample the perceiver needs, but this is hard to say, since nothing in the general concepts predicts how much is needed. The pull toward the center referred to by Gombrich seems real enough, but not explained by, because not plausibly implied by, the aim of efficiently sampling the redundant border.

For another example, consider how the vitiating effect of repetition in general relates to Gombrich's broader point, that we need not and do not inspect decorations for their details. Certainly, the latter doesn't imply the former. It's not just that we don't need to scrutinize the individual elements, but that the display resists our doing so, even when we try. Gombrich tries to relate this resistance to his general concepts by positing a kind of rivalry: "There must be a conflict, or at least a tension, between the two functions of perception to which we referred at the outset, the perception of things and the perception of order" (p. 151). But Gombrich's general concepts, even with this conflict added, still do not imply the repetition phenomenon, in particular that "thingness" would be the loser in cases of conflict. Why "thingness" is the loser, or indeed whether it always has to be, remains uncertain. Furthermore, Gombrich's proposal of conflict is confusing in another way. He seems to forget here what he maintains in discussing habit, that the perception of things also is part of the perception of order. The conflict is not between order and thing so much as between one kind of order, design narrowly taken, and another, familiarity.

Such difficulties arise not infrequently throughout *The Sense of Order*. Many explanations are not so readily filled out to yield plausible deductive accounts, and sometimes, as above, we have outright inconsistencies. Although Gombrich's particular and general concepts make a coherent overall picture, they do not lock together into a seamless explanatory structure.

Such flaws should not be viewed as ruinous, however. On the contrary, one would hardly expect a tight scientific account of such a complex domain. Gombrich no doubt wrote his book somewhat like a decora-

tive design, not to be scrutinized detail by detail anyway, and even incomplete explanations do valuable service in pointing the way to further inquiry. Moreover, a more conservative and cautious Gombrich might be one less worth having, if it costs the drive toward explanation, even though not always solid explanation, which so infuses *The Sense of Order*. And Gombrich himself is frank about the limits of what he attempts: "I am fully aware of the fact that speculations, as yet unsupported by controlled experiments, cannot qualify as psychological theories. But what starts as a mere 'hunch' can sometimes be turned into a scientific hypothesis in expert hands, and I have been so fortunate as to see this happen with informal suggestions I have put forward in the past" (p. ix). So Gombrich has issued this *caveat emptor*, and the reader should take heed.

A Note of the Explanandum

The explanandum in an explanation is the thing to be accounted for. It is, in Gombrich's *The Sense of Order*, a range of phenomena concerned with decorative design. But why this explanandum? Is this where we would like to see E. H. Gombrich investing his time and intelligence? To put the question that way is to show how unfair a question it is: Can an author not choose his own work? But to address the question anyway is to provide a little more perspective on what *The Sense of Order* attempts and what it eschews.

One thing Gombrich does *not* attempt is an account of aesthetic excellence in design. True, he describes the different attitudes which have prevailed toward such matters as functionalism, or as flatness versus three-dimensionality. True, he takes as central to quality a provocative balance between order and disorder. Certainly the abundant illustrations present to the reader many lovely examples of decoration. Yet Gombrich never tries to argue that this is superb and that abysmal according to the logic of his concepts. If Gombrich instructs us in the connoisseurship of decoration, it is in terms of what effects to see, not what values to apply. Some might consider this an appalling neglect of what is really important. But, instead, it might be considered the wisdom of explaining what can be explained and letting the rest go hang. As quoted earlier, Gombrich specifically acknowledges the difficulties of any general aesthetics of design. To this reviewer's mind, Gombrich is right: Particular differences in aesthetic quality defy any ready explanation by general principles. Rules of thumb can be given, of course, but as explanation, they fail the test of implication emphasized here, being too subject to exception.

Another thing Gombrich does *not* attempt is a general account of the visual phenomena of abstract art. True, Gombrich notes that the theories behind twenti-

eth-century abstract painting draw considerably on the debates about ornament in the nineteenth century. True, he occasionally offers contemporary abstractions as examples of some of the effects discussed. However, Gombrich draws a fundamental distinction between such matters and his aim: "Remembering my own normal reaction to decoration before I had embarked on this investigation, I was tempted to call this book 'The Unregarded Art.' . . . Painting, like speaking, implicitly demands attention whether or not it receives it. Decoration cannot make this demand. It normally depends for its effect on the fluctuating attention we can spare while we scan our surroundings" (p. 116). So Gombrich, no great fan of abstract painting (1963), has chosen to complement his study of realistic representation in *Art and Illusion* with a study not of those abstractions and semiabstractions that hang on the important walls of important museums and mansions, but of the ones that hug coffee spoons and architectural columns, the ones we take for granted.

One could regret this. I confess myself to a moment of regret when, halfway through *The Sense of Order*, I happened to visit the Fogg Art Museum at Harvard University. On display was a Calder piece, standing on the floor about chest high, its top a horizontal gesture of wires and metal plates pivoting on the base. For some reason, I found it wholly engaging. Not only did it allow, even compel, my regard, but it departed strikingly from the perceptual armamentarium of ornamental design. There was little repetition in a narrow sense. There was calculated asymmetry. The curvilinearities were complex, but within the reach of vision to know them one by one and all together, a feast for the eye where one *could* consume every dish, to reverse Gombrich's expression. "This," I said to myself, "has nothing to do with the sense of order."

But in the end there were no regrets. The old saying about gift horses seems relevant here. E. H. Gombrich has made us his gift, and there is no need to grumble about how he could have done this or could have done that. He has, in fact, chosen a neglected corner of our vision and sought to illuminate it for us. The point is nicely made by the way he frames his discussion—with a discussion of a picture frame. At the close of his introduction, Gombrich has a few remarks to make about an elaborate picture frame, circa 1700, surrounding the *Madonna della Sedia* by Raphael. Gombrich says, in part, ". . . on the face of it, it seems an extraordinarily pointless activity to expend so much skill and labour on carving and gilding these festoons with laurel leaves and berries, stretched between fictitious curly brackets of extraordinary elaboration, which fasten them between shell-shaped forms" (p. 15). But by the end of the last chapter, Gombrich is ready to return with his readers of more informed perception to this same frame. "To the reader who has shared this journey with me it should have looked pro-

gressively less puzzling. We recognize in it a version of the cartouche with four animated motifs oriented toward the field of force they enhance. They are progenies of Gorgon's heads . . ." And so on. Yes, the frame has become more meaningful, one's vision less naïve, in consequence of the rite of passage imposed by *The Sense of Order*.

Note

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That there is an essentially metaphorical component in many diverse realms of symbolic behavior has become a popular, and even fashionable, concept, and thus it seems particularly timely to consider some of the philosophical implications of the concept of metaphor itself. The publication of this latest collection of essays, which had originally appeared as an issue of *Critical Inquiry*, should serve to alert scholars to the richness of contemporary thinking on metaphor that can generally benefit discussions of symbolic phenomena. While much of the debate in this volume is aimed explicitly at problems in literary communication, this approach should not prevent a fruitful extension to related issues in other fields. Furthermore, the concept of metaphor is not only relevant to the objects we seek to understand but sheds considerable light on the very process of analysis. Metaphor, then, seems doubly relevant: It clarifies the structure of certain forms of symbolic communication and theories about communication as well.

Many readers, however, may encounter some difficulty in reading these essays: A good deal of knowl-