Perception and the Aesthetic Experience

R.L. Geyer

Human beings are entities which perceive, and perception is a process of both discovering and creating order in the world. As perceivers, we have a biological predisposition to find structure, or patterns, in sensory "input" and to recognize certain types of patterns easily. Research has indicated that very young infants will attend to patterned visual stimuli such as "bullseyes" [Fantz, 1961, pp 66-72] and larger humans have a persistent tendency to see human figures in just about everything, i.e. to anthropomorphize. This tendency, as common as bulleye-attention, demonstrates our ability (indeed, our propensity) to construct or invent in our pattern "recognition".

Another example of such perceptual construction occurred to me on a long driving trip as I periodically glanced at my odometer. I was especially attuned to my car, for I had owned it for years and had performed my own routine maintenance. But I began to think that some deeper empathy had developed, because each time I looked at the odometer the number would present an interesting pattern. It might have been '68086', with obvious symmetry, or '68724', in which the third number is numerically between the first two and the last two combined equal the first. Or it might have been '69238', which alternates even and odd numbers. I believed at the time that the connection between the car and myself was such that I would sense when the odometer would read a patternable number and only then would I look at it. I believed the pattern was in the number, and my role was simply one of recognition. However I now believe—because it better fits the pattern of my ever-expanding larger experience—that the numbers I saw were significantly random and that my I was rationalizing a pattern into them. In other words, I was inventing a pattern to fit whatever number I happened to see. Thus, the "discovery" of structure was as much from me as it was from the odometer reading. The pattern was really a relationship between the number and me. In fact, with some imagination virtually any number can be seen as exhibiting a pattern. Of course not everyone would be inclined to find patterns in odometer readings, but we all do seek patterns of many sorts.

This act of construction is what makes us perceivers rather than mere responders to stimuli. Though we begin with "objective" stimuli, we immediately construct an interpretation of it, and this act of construction is the act of perception. [See Gombrich, 1969] A pattern of dots which outlines the shape of an eye is not first seen as a mere bunch of dots and then recognized as an eye; it is seen spontaneously as an eye. The initial recognition is an interpretation of the information. When our perception errs (i.e. when our perceptual systems make an erroneous interpretation) and we realize our mistake, not just what we think changes but also what we actually see.

For example, a friend and I were walking one sunny day on a field where several remote-control model airplanes were being flown. The field was also near an airport, and my friend assumed that the planes overhead were full-sized planes at a distance. In the

course of our conversation she came to realize the truth and could no longer understand how she could have seen those models as full-sized planes. She now saw their jerky motion and heard their high-pitched whine—details she had not noticed before. When her interpretation changed so did her perception.

Perception must be distinguished from the more rudimentary sensory systems of most animals. The frog's visual system has been thoroughly examined and presents a useful example. Frogs have four types of visual receptors in the retinas of their eyes. One type responds to large contrast differences, another to changes in contrast, the third to changes in light intensity, and the fourth responds to small, dark, circular objects which are moving toward the frog. This last receptor is called the "bug detector", and when it is triggered the automatic response is for the frog's tongue to shoot out and catch the triggering object. [Lettvin, et al, 1959] The frog does not decide whether it is hungry or even whether the object is a bug, but just shoots out its tongue. All of the frog's visual processing is "peripheral, in the retina of the eye. This peripheral sensory apparatus is a rudimentary stimulus/response mechanism, as opposed to our complex, central interpreting system.

I do not know to what extent other animals, especially higher mammals, perceive, but what is important is that we do interpret our sensory information, and the act of interpreting is one of pattern formation and recognition. My friend in the field tried one pattern, on the basis of a certain set of (very reasonable) clues from the present and her experience, which was "airplane-at-a-distance". Most of the available clues fit this pattern very well, and she "edited out" or didn't consider the others. Then something happened which caused her to re-examine her interpretation, and she found that another pattern accounted for the same data and included more. Note that this is fundamentally the same process that science employs. A hypothesis is formed, based on certain, reasonable, data. It is tested against other data and modified or rejected depending upon how consistent it is with our other, more firmly rooted, hypotheses. If rejected, a new hypothesis is formed with additional data. Each successful hypothesis in science becomes part of our explanation of the world. Each successful hypothesis in perception becomes part of our awareness of the world.

The fact that my friend did not notice certain details, e.g. jerky movement and high-pitched whine, is not a fault but rather illustrates another characteristic of perception. We only "process" what information we need to fit a reasonable hypothesis, or pattern or expectation. Were we to attend to all sensory information, we would not be able to make any sense of the world. Were my friend to consider the texture of the grass, the distant car traffic noises, the wind on her face, etc. in her attempt to recognize those moving objects in the sky, she would have been most confused. Psychologists speak of the "cocktail party phenomenon" which addresses our ability—actually, again, our propensity—to screen out some sensory information and attend to some other. [See, for example, McKeachie and Doyle, 1970, pp 163-164] The name derives from those situations were many people around us are talking about different things, but we focus in on a particular conversation and do not hear the others. Such selective attention is essential to our survival in general, as well as at cocktail parties.

An interesting example of selective attention, provided by the philosopher, Nelson Goodman, concerns which properties of a tailor's sample book we notice. Clearly, we do

not attend to all of the sample book's properties. If we are choosing a material for a suit, we consider the color, weave and texture of the samples but not their size or shape. On the other hand, if we are considering what a tailor's sample book is, we will attend to the size and shape but not the color, weave and texture of the samples. [Goodman, 1976, p 230]

Which properties we address is dependent upon our inquiry—what we are interested in at the time. One inquiry concerns fabrics, and another concerns sample books. In yet another inquiry, we may be looking for an object just the thickness of this sample book to wedge under a leg of an unbalanced table, at which time only the book's thickness is relevant. As my friend and the airplane illustrated, we attend only to those properties which we imagine are relevant to our present inquiry.

The perceptual process of editing and interpreting is a search for structure. At a cocktail party we find a particular structure or pattern in the chaos of noise; my friend found one structure and then another in her flying-object information; I found structures in odometer readings; a number of different structures are found in the tailor's sample book.

Though the act of perceiving is a process of finding structure, we do not always attend directly to the structures that perception reveals. They are frequently the background conditions, rather than the focus, of our inquiries. For example, my friend was more interested in the airplane-status of her perception than in the particular patterns that yielded her perception, and I was more interested in spiritual commune with my car than in the particular patterns I realized in odometer readings.

In the aesthetic experience, on the other hand, we pursue structure for its own sake, for the structure is the abstract, perceptual goal. One assumes the existence of a structure and attempts to realize it (i.e. discover/invent it) in perception, which process is the aesthetic experience. If a pattern is actually found then the inquiry and the experience end. In aesthetic experience we are tantalized by a pattern, or ordering, which remains just out of reach, regardless of the depth of our attention. With each stride we make toward the realization of a final ordering, we discover a new wealth of information, necessitating still deeper consideration. Notice again the analogy between aesthetic and scientific pursuit: Each question that Science answers opens her eyes to further questions. Final answers are sought but remain tantalizingly beyond her grasp.

Another characteristic of aesthetic experience is commonly described as "disinterestedness". This particular expression, though, is difficult to unravel, so I will address the idea behind it through an analogy with ethics. Immanuel Kant, in the *Groundwork of the Metaphysic of Morals*, wrote that ethical behavior consists in treating all persons "never simply as a means" to some further end, "but always at the same time as an end" in themselves. [Kant, 1964, p 96] This emphasis on an end in itself is equally applicable to the quality of attention of the aesthetic experience. (Kant, himself, was one of the first philosophers to employ the notion of "disinterestedness". This adaptation of his ethics is my own doing.) One's attention, in aesthetic experience, is not directed toward any further employment of the object or any further experience. The positing of and search for a unifying structure are one's only concerns, irrespective of any other value that that structure might have. For example, the scientist might engage in aesthetic

inquiry by considering a theory independently of any future applications or problem-solving possibilities it may present. Aspects of the experience may include empirical awareness of the workings of the world, the simple yet general description of aspects of the world provided by the theory, and relations between the two. The pattern, or order, posited is some alignment of theory and world which, while suggested, is not fully realized—or quite denied. The scientist takes pleasure in the tantalizing suggestion of some larger order which unites theory and world. But this pursuit of order is not directed toward acclaim within the scientific community or even toward achieving an ultimate understanding of the world. In as much as the experience is aesthetic, it is just a pleasurable end in itself.

Aesthetic experiences involve a particular mode of perception wherein one seeks to unveil a unifying order, or structure, or pattern underlying the thing perceived. But the structure is sought purely for its own sake. It is not sought for any possible value in a further inquiry such as attention to molecular structure in order to understand physical objects, or attention to elements of a painting for the purpose of determining its monetary value. In aesthetic perception, structure is sought for the satisfaction of seeking structure.

Aesthetic experience may seem trivial compared to more usual modes of experience, and evolutionarily enigmatic. However, perception in general is a necessary function for human beings, and perception is a process of editing and ordering information from the senses. Thus seeking order is a biologically necessary operation, as essential to our survival as eating and reproducing. Aesthetic experience, as seeking order just for the sake of seeking order, is a celebration of perception. The pleasure in this experience is primal, as it is in eating when hungry and copulating. It is there to encourage a basic need. Evolution has favored perception in the aesthetic phenomenon.

Bibliography

Dewey, John, *Art as Experience*, New York: Capricorn, 1958.

Fantz, Robert L., "The Origin of Form Perception", in *Psychobiology*, San Francisco: W.H. Freeman, 1961

Gombrich, E.H., *Art and Illusion, Princeton*, N.J.: Princeton University Press, 1972.

Gombrich, E.H., "The Evidence of Images" in Charles S. Singleton, ed., *Interpretation: Theory and Practice*, Baltimore: Johns Hopkins Press, 1969.

Goodman, Nelson, *Languages of Art*, Indianapolis: Hackett, 1976.

Goodman, Nelson, *Ways of Worldmaking*, Indianapolis: Hackett, 1978.

Kant, Immanuel, *Critique of Judgment*, trans. By J.H. Bernard, New York: Hafner Press, 1951.

Kant, Immanuel, *Groundwork of the Metaphysic of Morals*, trans. By H.J. Patton, New York: Harper & Row, 1964.

Lettvin, et al, “What the Frog’s Eye Tells the Frog’s Brain”, in *Proceedings of IRE*, Vol. 47, 1959.

McKeachie, Wilbert and Doyle, Charlotte, *Psychology*, Addison-Wesley, 1970.

Quine, Willard Van Orman and Ullian, J.S., *The Web of Belief*, New York: Random House, 1978.

This paper is extracted from “In Search of the Aesthetic: A Study of Relevant Detail in Art”, presented to the State University of New York, College at Purchase, in partial fulfillment of the requirements of the degree of bachelor of arts in philosophy, May, 1983. Revised November, 1988.