Table of Contents

4. Intentionality

Ronald Brady

In chapter one I mentioned a colleague who had to "believe that something is out there." He apparently took the division between "out there" and "in here" to be unproblematic—as if this division was at least something definite. In subsequent discussions he argued that his belief was compelled by the way the world looked—clearly present to our senses and "out there." Although he knew his position had certain affinities with that of Kant, he saw no reason to be quite as perceptually agnostic as the philosopher. The most conservative position, to his mind, was to assume that the world was fairly close to the way it was perceived, even if we could not prove that. After all, the assumption had taken us far in science.

Unfortunately, "the way the world is perceived," if we look closely, is not at all as it is described in the "in here versus out there" version. All third-person accounts of this type describe the world as a "view from nowhere," but actual perception always includes the perceiver doing the viewing. The fiction entertained, of course, is that the perceiver does not need to do anything to perceive the world. Careful attention to our own perceiving shows the opposite, as I argued in chapter one: the perceiver must do a great deal. In fact, any close examination of direct perception must be, in large part, an account of our own activity. I learned this in a very direct manner.

I Believed the Column Was of Solid Granite

After I joined the Philosophy Department I continued my studies of Goethe, and among the philosophical texts I read were, particularly, those that purported to treat of experience. But still the perceived world seemed to escape whatever it pleased mere humans to think about it. The world was "out there," apart from me and my thinking, and whatever ideas I cared to weave about it were only that—hypotheses of thinking about a world that was not thought, and might have nothing in common with thought. In fact, I was reasoning about this impasse when, in a moment of inattention, I tripped.

It was a serendipitous mistake, although I could easily have been seriously hurt. I had been pacing a large foyer, my hands clasped behind my back, my steps on the marble floor slightly

echoing in the otherwise still place. As I approached one of the large granite columns, my profound demeanor was completely ruined by my own feet: I caught my right toe behind my left ankle and went straight over. My fall was so immediate that I could barely get my hands from behind my back in time to put them between me and the floor. They were certainly too late to ward off the column. I remember falling—it seemed like slow motion—and twisting to get my head and shoulder to one side of the column, since my hands were still coming from behind my back.

As I picked myself up off the floor I was still horrified at the approach of the column, that incredible tube of granite so huge that my skull felt like an eggshell before it. I could not dismiss the memory of that massive density approaching and just slipping by—a collision avoided by a fraction of an inch—and my sense that my head could not survive even a touch. I have no idea how long it would have haunted me had I not remembered, within moments of the experience, that my "massive density" was not a sensible report. I saw the column, but I did not touch it. How could I feel so acutely the mass of the column swinging by?

I would have dismissed the whole thing if that dense mass had not brought on such a flinch reaction that I could not get out of its grip. As the column went by it seemed frighteningly tangible. But how could it be? Here was something felt—that is, sensed—but not by the usual senses. It did not take long to realize that the intuition of solidity, of density, could not be identified with touch either. Mere touch does not reveal much about the occupation of the interior behind the touched surface. It occurred to me, however, that if I had previously been convinced that the column was a fake—a veneer of plastic manufactured for the camera—I would not have felt such a mass swing by, nor flinched so much. But I believed that the column was solid granite. Thus the intuited dense occupation of space fit my understanding of my surroundings exactly—it seemed to be my way of completing the sensible picture.

This insight was more than a little bit disturbing. The reality of solid objects for me was very much represented by the felt solidity of the space they occupy—this is what gives them real presence. But the actual senses of touch and sight could detect only the outer limit of a solid—they had no way of plumbing the interior depths that my intuitive activity had filled in. As I looked around in the world, no object was without some sort of "substance intuition"—stones were stony, wood woody, metal metallic, even though the metal was but a relatively thin sheet. Everything that was properly "solid," even if hollow, had to contain a finite volume of some substance capable of holding the rigid shape of the object. But this point makes another demand.

As I thought further, I noticed that in order to understand the world as material I had to grasp objects in terms of volumes—had to understand them as invisibly extending behind the visible front. The column I had felt to be so imposing could not be so if it did not actually occupy

a rather large space, which meant, of course, that it had to curve away from me as well as toward me, and the unseen rear curvature was as felt as the visible curve before me. Notice that this is quite different from saying that we can imagine how things would appear if we walked behind the column and looked. The rear curve is necessarily present to our understanding as we view the front, and is fundamental to our estimate of the extension. This form of completion seems to be needed by the world at all times. As I glance around the room, all objects present themselves to my eye according to the same law. Each is closed to its particular volume—the book, the box, the computer printer; each extends invisibly away from the eye as well as visibly toward it, providing a volume that is occupied, totally or in part, by an intuited substance. Otherwise it would not possess the concrete presence that it does.

Everyone Has Intuitions But They Confuse Them with the Senses

The concrete presence of an object was not a part of the world that I expected to be "filled in" by my own activity. The solid mass of a thing announces, to my experience, the reality that I must contend with—the reality that resists my will and forces me to recognize laws governing the phenomena as I understand them. This is the simple dumb facticity with which the physical objects around me occupy space and resist thought (being, as Descartes termed them, "extended" rather than "thinking" substance). Yet the conclusion was inescapable: while the sense report is forced upon me, suffered rather than made, the extension and substance of the object—and with them its "dumb facticity"—are not given in a sensible manner. The Cartesian belief in external, independent, solid objects was not based on an examination of perception, but was only the articulation of a conceptual representation. Immediate sense experience is otherwise.

In later reading I found that I was examining the contribution of what Johannes Mueller called attention and/or intention, and Edmund Husserl, in a quite independent development, also termed intention. But my interest was not a historical one. I had noticed a part of experience that seemed, before this time, always just out of focus—and for that matter, out of the official account. I saw now that objects of perception cannot be given to a passive mind, but show themselves only within a context of active understanding. This activity is a necessary element of phenomenal constitution: it gives us not only ideas about the appearances, but an aspect of the appearances themselves. In fact, if my intuitions can be said to be "in me," then the intuitive meanings that concretize the things around me appear to be these very things, speaking in me.

Of course, if the "dumb facticity" of the world was given though my own intuition, it need no longer be dumb. I was reminded at this point of a remark by Coleridge that "everyone has

intuitions, but they confuse them with the senses." I had not realized what he meant when I read it, but I saw now that he was simply pointing to an inattention. It is obvious (as a matter of conceptualization) that everything about us has volume, and thus must extend away even as it extends toward us. We know that, but do not notice that we also tangibly *perceive* objects in this way. That is, our conceptualization is already there in our perception. Nor do we notice that were we to depend on sight alone we would possess only images rather than objects (or perhaps only colors and degrees of brightness, darkness, and saturation), and that touch (including variable pressure, texture, and warmth or cold) never by itself delivers the character of the substance touched. Careful inspection can reveal these things by showing how the qualities of volume and substance are in fact acquired. We need only attend to the actual nature of our perception.

In the cases described above our mental contribution to the phenomena is quite clear because it cannot be confused with the report of the senses. The far side of objects is never available to sensible presentation, but must still be included in the whole presented to understanding. The interior is likewise beyond the actual sense contribution, but without this intuitive contribution the senses, particularly those of touch and sight, seem incapable of representing a world. In both cases we are permitted to examine our act of understanding while it is still being maintained, and observe the manner in which it completes each form. And in both cases we seem to be dealing with what Berkeley called the "ideas of touch."

Exercises in Attending: (1) Taking Notice

I want to go back now to a simpler approach, and begin to develop an idea of myself as agent in perception. The first step is to begin to observe the aspect we have ignored, namely, our own activity. Consider the earlier case of overlooking something "right under my nose." The usual explanation, and perhaps the best one, is that I was not paying attention to it. Even when I appear to synthesize several sense reports into one object, I am simply attending to the object and not to the sensations by which I perceive it. When I pick the flutes out of the orchestral sound I am paying attention to them rather than the rest of the instruments, which become mere background. And even the pain of a wound does not reach my consciousness when I am paying a consuming attention to some other matter. This sort of account at least recognizes that I cannot notice anything without some degree of attentive activity on my part. In fact, it treats "to attend to" as if it were synonymous with "to notice."

But just here the problem emerges. How do we go about "taking notice" of something? If someone tells you to look at the flowering bushes, you move your gaze across the visual field

and focus your eyes on the bushes. This account assumes that you had already noticed them in the periphery, for you experienced no surprise, and are simply placing your focal attention on them. But the task of moving your gaze and focusing your eyes has no parallel when you attend to the sounds of an orchestra. You can switch from the flutes to the violins without moving, or focusing, your ears.

Exercises in Attending: (2) Attending to the Focal Point

Mueller noted that he could fix his visual focus on a particular point in a pattern and, without changing the focus of his eyes, move his attention about that center, inspecting each peripheral element in turn. In this manner he satisfied himself that his attention moved independently of his eyes, although in normal sight the latter would always follow the former. The experiment is one we can easily perform—to a certain degree we have all done it—but performing it deliberately provides an actual experience of the distinction between attention, as an independent faculty, and the bodily organs.

At this point I must ask, however, that you actually perform it, for only direct experience can provide a grasp of our attending/intending activity, and for those unfamiliar with it this exercise yields just such experience. My arguments will turn on language drawn directly from this experience and can mean very little without that reference.

In attempting this experiment I found that I had to learn how to keep my eyes still while my attention transited the field. At first my attention was so identified with muscular effort that to move my attention meant to move my gaze, and I had a sense that I could not "see" without this movement. With practice, I found that I could fix my eyes on some point and, while holding that focus, concentrate upon rather than "look at" peripheral configurations well enough to list their colors, shapes, relative size, and number, at least if they were in the immediate periphery. My ability to identify something fell off rapidly as the sight angle between the fixed point of my gaze and the target of my attention increased. Still, larger entities were quite noticeable even at relatively large angles. The hardest part to learn was how to see by merely "attending to" rather than "looking at."

Exercises in Attending: (3) Ignoring and Attending

As I kept my eyes focused on a specific point in a landscape, for instance, I could learn to "see" the shapes of trees on the right side of the point, but only with effort and difficulty. Instead of a near-immediate "taking hold" of form, as would be the case with a direct gaze, I had to examine something in permanent soft focus—somewhat blurred—and struggle to gain a familiarity with the blurred form. Once I came to an idea of a shape, it seemed to clarify my sight. If I then shifted attention to the left side, my immediate impression was often much less intelligible than the preceding view, and I had to begin the learning process all over again.

The fact that my attention could vary independently of the focal point of my eyes brings the example of sight into line with my experience of the other senses. Just as my visual attention takes in a whole field and then selects particular locations for close inspection, so my auditory attention ranges constantly over a field of sound, selecting for inspection only those that I take to merit closer scrutiny. The same pattern can be found in an examination of the reports of taste, smell, and touch. We cannot "notice" any particular without bringing the faculty of attention, itself independent of the senses, to bear upon it.

The analogous experiment with the auditory sense is much easier to perform. As I sit typing, the computer makes a constant hum but also adds other sounds on occasion, which then become the focus of my auditory attention. I find, however, that I can turn from whatever sound is now in the foreground of my attention and begin to retrieve those that have fallen into the background. The steady hum of the computer, for instance, or the more distant knocking of a hot water pipe, the birdcalls outside the closed window, a passing car—all these sounds are actually absent from my consciousness as I begin my search, but all quickly turn up.

We can rarely afford to be without a specific focus, which creates a specific lack of focus in all other directions. Mueller's experience of ignoring the cries of street hawkers, for instance, reminds us of how important such a deliberate lack of attending can be. My students were particularly annoyed with the task of mentally searching their own skin area for itching, soreness, or any other surface discomfort. They began to change position in their chairs and suggested that the point was made and we should all move on as quickly as possible.

This sort of noticing activity is easily observed—a fundamental doing that we cannot miss—yet I have left something out. The movement of attention within the sensible field is, as established above, a necessary condition, but it is not a sufficient account of how something is "picked out" of that field, *particularly something previously unnoticed*. The unheard sounds that become heard upon searching for them provide a common example. The soldier who does not notice his wound and the hiker who does not see the still rabbit in the path are not yet conscious

of anything on which to focus attention. They have not yet noticed the pain or the animal, even peripherally, and cannot attend to what is not there. If “to attend to” and “to notice” are interchangeable, then the activity I have been examining clearly does more than move our mental focus between perceptual elements already present to consciousness; it must also allow us to become conscious of previously unnoticed elements (including, I think, noticing that there is a sensible field when we wake to it in the morning).

What was happening during the time I took to “become familiar” with the shapes within the blurred periphery? Why did I find that when I “cheated” and glanced directly at, say, the shapes that lay to the right of my focus, and then repeated the original exercise, it was far easier for me to see what lay within the blur? Evidently, direct focal recognition of shape allowed me to see the same shapes better when they were once again seen only peripherally. Presumably, the time taken to gain familiarity with previously unknown peripheral shapes was devoted to a process of understanding that is something more than concentrating on a new sight angle.

Recognizing

Normal experience also points to this process of understanding. When searching for a particular item in a crowd—let's say a book among books—I find that the search is far quicker if I have a clear picture of the book. If I am mistaken about details—slightly off on the size, the type of printing on the spine, or worst of all, the color— I can look right at it without recognizing it. More disturbing is a failure to recognize a good friend in a crowd due to some fairly minor change in appearance, especially aging. It seems that I recognize an object through an inner preparation as well as what is presented from without. And sometimes my preparation is inadequate.

The principle of camouflage seems to take advantage of this inner preparation. For instance, the simplest form of camouflage is paint. Buildings placed among trees can seem to disappear if painted with foliage patterns, but only because the observers have fooled themselves. When one looks for straight lines and horizontals, the buildings become visible, and obviously would never have disappeared had the observer not formed an expectation of foliage. Recognition does not take place in a vacuum—we see familiar things far more easily than new things; we see what we expect more easily than what we do not. So, again, recognition is facilitated by inner preparation, and when this preparation is not adequate to the situation, considerably more time and effort are needed to sort things out.

The Hidden Image

Take, for instance, the effort needed to see Figure 1 if you have never seen it before.

Figure 1

The picture is an actual photograph, although of poor quality and very grainy. It is not oriented correctly on the page, so the observer must also find the right orientation. Many shapes are suggestive, but the actual grainy photograph portrays a familiar object that occupies a good third of the frame, and is not merely suggestive when recognized. I suggest that you spend a little time with the picture in order to verify that no recognizable image seems available upon first examination. Once you are ready to receive some hints, I can add that the plate should be turned so that the Figure 1 caption is on the left side reading downward, and the picture is a photograph of a common animal.

If these hints do not produce a coherent image (I remember that they did not work for me when I first saw the photograph), let me add that the animal is a cow, looking right at you, the head almost filling the left half of the frame. This final and most effective hint consists mainly of the name, but the name often produces quick results because one is already familiar with the animal—looking for the familiar form evidently prepares for actual recognition.

This was the sort of activity mentioned in the experience of the orchestra above, in which one could focus upon one type of instrument and allow the others to become background. When we listen for the sound of the flutes, they stand out for us. In fact, if we are told that while the piece uses horns, there are no trumpets, we can verify this only by listening for the sound of trumpets, which can then, and only then, be "heard" to be missing.

All this, and especially the elusive cow, suggests that we cannot attend to what we do not recognize—that is, recognize as something, some intelligible appearance, whether it be a "correct" one or the first part of a double-take. The step of recognition now appears somewhat mysterious, since prior to recognition of a possible object of consciousness we cannot move our attention to it. After all, finding the cow is not equivalent to finding the right sight angle—even when we look right at it, the cow is still not a locatable site, for we find only separate dark and light patches in our gaze. The cow has no unity that we can fasten upon as a thing, until we see it. But when seen it appears in a unified condition—we can almost have the impression that we "see" the edge of the cow's face where there is no variation of brightness to allow us to do so. What has provided the unity?

Kanizsa's Undepicted Forms

This unity can be investigated more closely in our perception of specific figures. Take, for instance, the figure designed by Gaetano Kanizsa (1976), which produces a perception of a central white triangle simply by arranging three black circles with sections missing and three

bent lines on a white background. The observer sees, apparently immediately, a white triangle in the center of the configuration, due to how the forms have been understood. Here is a case where the understanding that produces a consciousness of the white triangle can be reconstructed.

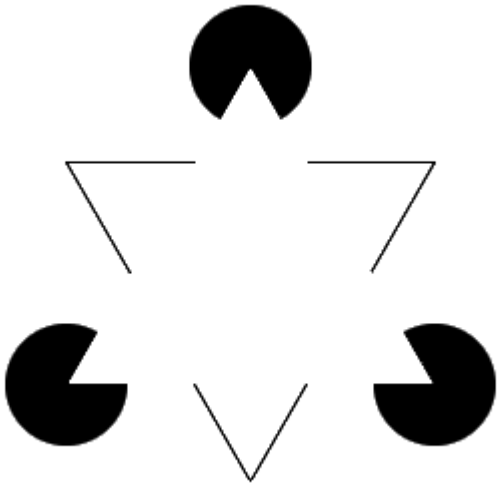

Figure 4

As you can readily verify, if the white triangle is seen, then the underlying forms are grasped as closed; that is, the three black circles are understood to be complete and the bent lines to be part of a continuous triangle. The foreground triangle lies over these forms and thus interrupts them. This triangle will appear somewhat brighter than the rest of the background, but the viewer can mask off all but two elements—a circle and a bent line—and see these elements as nothing more than a black circle with a piece missing, and a bent line. When they appear as nothing more, there is no hint of a brighter triangle. Thus the understood closure of the black forms is the usual condition for the appearance of the white one. But notice that this means that we must understand the configuration in a particular manner *in order to see it*, and not that we arrive at this understanding after we see it.

Another Kanizsa effect is the transparent surface. In Figure 3 below, the white oblong in front of the black forms in produced in the same manner as the white triangle of Figure 2. But if the dark forms are closed with a gray rather than black continuation, the white oblong becomes transparent or translucent, as in Figure 4. In this case, as in the former, the oblong appears to be

brighter than the surround, and a contour is produced between the slightly brighter oblong and its duller surround.

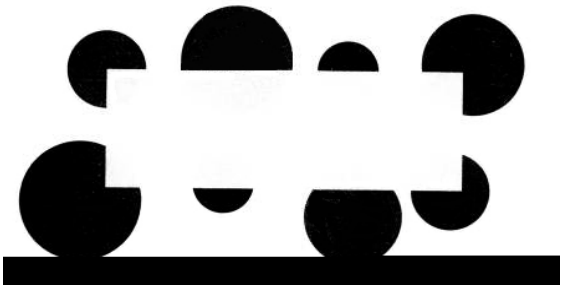

Figure 3

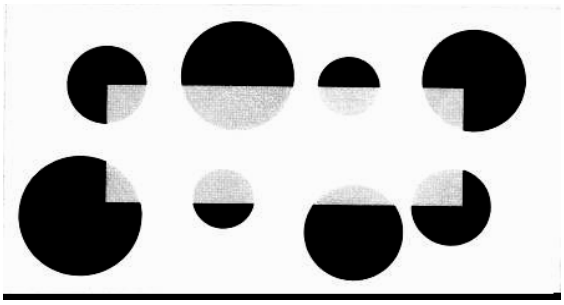

Figure 4

The translucent figure, of course, seems to arise in much the same manner as the original white oblong—that is, seeing an oblong provides a parsimonious understanding of the gray areas. But such an understanding must be seen if it is to apply.

The temptation to suppose that we see the oblong first and understand it later—that is, to suppose it appears without any participation from thinking, so that our mental activity takes hold only after the fact—can be dissipated with a simple experiment. Try to grasp the black areas as holes in something like a slice of Swiss cheese, and see, through the holes, a gray oblong. This may take a while, but once you see the gray oblong as a background figure, its apparent brightness vanishes. The new understanding of Figure 4 produces a new figure, which, of course, can be converted back into the old figure by a return to the old understanding.

For a further demonstration try simply relaxing and staring at any of these configurations without concern for a geometric understanding. In this "vegetating" mood, the design elements seem to "swim" slightly and appear as nothing more than separate elements—for instance, three bent lines and three black circles with slices missing, or eight circles divided into gray and black

areas. But the slightest attempt to make sense of the whole—that is, to put everything into proper spatial relation—will return you to the missing figure.

Here is an aspect of attending that previously escaped our attention. Even in a visual field, objects are not there for our visual attention unless we can notice them, and we do not notice what we do not understand. In the examples above, the viewer must grasp the black elements as closed in order to obtain the figure–ground separation that allows the white triangle to be the foreground, and this understanding must be in place by the time we become conscious of the white triangle or white oblong. Our understanding is a condition by which we become conscious of the appearance, and not something added to the resulting phenomenon. In the viewer's experience the white form is "there" from the beginning, which means that the understanding of closure has been advanced before the viewer is conscious of advancing it. After all, until a unified target is perceived there would be no conscious reason to advance the understanding that underlies it.

Counter-intuitively, the act of recognition lies in our activity immediately anterior to the fact of recognition. (By "anterior" I always mean causally prior, and sometimes chronologically as well.) The objects mentioned are already closed at first notice. The understanding of them as closed, therefore, is our way of noticing the white form. The same is true, as I have already indicated, of the closure of the three-dimensional objects of our usual surroundings. They appear closed in immediate perception. Our intention has preceded that appearance.

Activity and Consciousness: Discovering Meaning

The mental activity by which we understand our immediate world is perhaps the least observed activity in it. Take, for example, the remark made by H. H. Price (in his book titled *Perception*): "The perceptual act ... is not an activity. There is in it no element of fussiness, no wondering nor questioning. One does not have to take trouble over it—it is a blessed relief from the labour of discursive thought" (Price 1954). The point is put so clearly that, as N. R. Hanson pointed out, it is clearly wrong (Hanson 1969). Professor Price finds no activity in perception because he has looked for none—he begins with the perceptions ready-made, much as the poor reader begins with a text that reads itself.

By this last remark I mean to indicate the attitude that my beginning students often show when they read poetry for the first time and expect the lines of the poem to make a clear, recognizable statement even when read in haste. My warning that the meanings will show up only on repeated readings does not impress them, for it seems absurd, at least until the class

discovers that not everyone sees the same sentences. Even then many are suspicious that the alternate readings cannot be reasonable, an impression I usually disabuse them of by offering ambiguous sentences. Two of my favorites are:

What frightened John was looking at Mary.

and, if spoken without clear punctuation,

I know your plans don't include me

When these lines are heard, they are heard in a definite manner. One gets either "John was frightened by looking at Mary" or "The thing that frightened John was now looking at Mary," but unless both are heard almost immediately there is no sense of choice. The same is true of the second line, which becomes either "I know that your plans do not include me" or "I know you plans. Don't include me"—again with no sense that we have chosen an interpretation. Yet since the meaning of the line varies independently of the words, our own act of understanding has obviously made the difference. We become aware of this act, of course, after the fact. My students are usually softened up enough by these examples to start "listening" for other meanings in the texts, with relatively good results—relative, that is, to their situation before hearing the ambiguous sentences.

Similarly, the viewer exposed to ambiguous images learns to look for other possibilities in the visual field. If one revisits Figure 1 it is now rather difficult to avoid seeing the cow, but it is still possible to do so, at least for short periods of time, by attempting to see something else. If the page is upright, one may focus on the (almost) bird sitting on the rock at the lower right, or the dark object in the upper left, which seems to extend from background to foreground (from the upper left corner diagonally down) and includes the cow's left eye at nearest lower tip. Some people have mentioned a tortoise, but I have difficulty with that one. The viewer may deliberately look for and actually find such images, and then, before it happens involuntarily, switch back to the cow. That we arrive at different unities by this exercise is undeniable, even if all others are unsatisfying by comparison with the cow.

Of course, images we have previously found are more easily found again with the help of memory, for whatever we did to recognize the object in the first place must presumably be re-invoked in order to remember it. And when I say that the major image is a cow, or ask the reader to see a bird in the lower right quadrant, I am invoking familiar objects and accomplished recognitions. Even the dark object in the upper left quadrant will be treated in terms of past

knowledge—made into a rock in a landscape, for instance. When Polonius asks Hamlet to see his mother, the prince, bothered by the messenger, responds:

Do you see yonder cloud that's almost in the shape of a camel?

Polonius:
By th'mass and 'tis, like a camel indeed.

Hamlet:
Methinks it is like a weasel.

Polonius:
It is backed like a weasel.

Hamlet:
Or, like a whale?

Polonius:
Very like a whale.

Presumably this is an exercise in power, for Polonius will not want to disagree with the prince in his present distempered state, but the scene is more ambiguous. With each new suggestion there is a chance that the cloud may actually take on a resemblance to the named animal. We usually call this suggestion, but in Hamlet, the play in which "Nothing is good or ill but thinking makes it so," the term seems too small to compass the growing meaning. Even so, were the term not shrunk by the usual outlook to mean mispreparation and mistake, preparation by suggestion would fit our examples here. But we are speaking of a preparation that is as necessary for correct perception as for incorrect.

It is quite apparent that we are responsible for these image "shifts," as I call them, but we should be careful in forming an idea of just how we do it. Let me review the ground again. It is obvious that each new shift represents a reorganization of the dark and light distributions, and thus each must be grasped through a different set of relations, as a different unity. But since we do not suppose that the overall distribution of dark and light in the visual field is actually changing, we must assign the causal basis of the shifts to the viewer. That causal ground usually escapes consciousness, so we may hypothesize that it is produced either by some non-cognitive

(non-mental) process, which is by definition unconscious, or by a cognitive process (some form of understanding) that is usually below the threshold of consciousness.

The choice of a non-cognitive process would rest on the impression, exemplified by Price, that the images are just there when we look. The suspicion that our mental activity is involved arises when we deliberately shift images, as in the exercises above. We can perform these shifts because relations are never passively received but always grasped by an act of understanding—we must think them if we are to take them in. Thus we make things visible by intending the relations by which they are unified and grasped, and without which they could not appear to us. Obviously, to learn to make a new "shift" we must learn to intend—to grasp the sensible field—with a new set of relations.

From these descriptions we can arrive at a generalized one, which might go as follows: (1) Faced with a sensible situation, the perceiver must advance an intentional proposal—a set of relations—by which to grasp it. (2) The perceiver becomes aware of the result of this proposal, sometimes as a stable perception, sometimes as the first, unstable part of a double-take. If the result is unstable, of course, the perceiver advances another proposal (sometimes this happens so fast that we are barely aware of it, and thus the first proposal might not come to consciousness at all before the second has replaced it).

But notice that intentional proposals need not be advanced by the conscious mind (except in the rare cases of deliberate exercises); rather, consciousness is the result of a successful proposal, which explains why Price could miss the intentional proposal in his study. It has accomplished its function by the time we are conscious of the result. The same thing happens in the deliberate exercises. As we shift through the possible images of Figure 1, or the dual meanings of the ambiguous sentences, we are never aware of having entertained a proposal before we see its results. Rather, we know what proposal we have advanced by observing the results.

[Editor's note: The following text refers to four figures that you will find to be missing. All the figures were taken from the Chuck Close painting, "Roy II", which depicts a human face in profile, with the face consisting of numerous small "glyphs". Figure 5 showed a very small portion of the face, around the bridge of the nose and the eyes. Figure 6 showed somewhat more, Figure 7 still more, and Figure 8 consisted of the entire painting. Close denied permission for use of his painting in a web version of this chapter, and Ron Brady was in the process of developing alternative illustrations when he died in March, 2003. You will find "Roy II" in the book, *Chuck Close - Recent Paintings*, published by Pace Wildenstein in 1995.]

It is possible to provide an example of just this sort of learning. Figures 5, 6, 7, and 8 present a sequence of views of a Chuck Close painting made at different magnifications. Figure 5 shows

a section of the painting at such great magnification that one cannot grasp the context, and so it appears merely as a number of colored patches.

As we pull back from this part of the painting, however, it is integrated in the three following figures into a larger and larger field. By the time we have arrived at Figure 8 we can place the section in question in the context of the whole painting, and in this new whole it takes on a new meaning.

The section portrayed in Figure 5 is, of course, the eye and its immediate surround. But now we can examine the sequence in a different way. If we reverse the process, going back over the sequence to arrive at the section of greatest magnification, we will arrive again at the colored patches, but with a new possibility of seeing. Obviously in the step from 8 to 7 the eye is retained. With a little effort we can still see it when moving from 7 to 6. If we go slowly enough, the eye can still be retraced from 6 to 5. Here— in Figure 5—effort is needed, and you can experiment with your ability to lose the eye and then regain it without glancing back at the more inclusive figures. And whenever your ability to do this disappears, you can quickly regain it by returning to the other figures.

When we return carefully to Figure 5, it is organized (in the original sense of the word: an "organ" is that which carries out a function). We saw no hint of this unity when Figure 5 was first viewed, but now it is possible to see the eye-eyebrow complex that became visible as a part of the whole painting. We have to understand the blue patch (dark in the black-and-white image) as the eye, see the direction of sight, and grasp its relations to the eyebrow and the rest of its context. These relations are both spatial and dynamic—the eye and eyebrow are expressive forms; that is, they are doing something. If we are successful, they will still be doing it as we look at Figure 5.

If we examine our own activity closely, it becomes obvious that the functional doing expressed by the eye-eyebrow complex is not something added to the complex after we have seen it. We must bring forward an organizing intention in order to see it, and this intention includes a sense of the expressed activity. The activity organizes the complex that expresses it. If we see it seeing, we see an eye. Of course, if we relax our effort to grasp the whole complex as an expression of an organizing activity and let our gaze rest on separate patches, then the activity, and therefore the eye, can easily be lost.

Bring Me Any Worms That Sneer at You

Philosophers make a distinction between the sort of understanding expressed in "knowing that" (I know that all objects fall at the same rate in a vacuum) and "knowing John," which is a very different form of knowledge. My recognition of John, for instance, contains a type of understanding of John, but I cannot specify my understanding in analytic statements. One does not "explain" how to recognize something, although it is possible to produce directives that greatly facilitate recognition.

For an example of this difference between analytic specification and recognition, consider the account given by C. F. A. Pantin (1954), a lecturer in biology at Cambridge. Pantin points out that in his published papers species had to be identified analytically—that is, all Xs and only Xs have characters 1, 2, 3, and 4. The resulting reasoning was straightforward: this individual has (or does not have) characters 1, 2, 3, 4; thus it is (or is not) an X. Pantin observed that such information is hard-edged: it consists of yes-or-no answers to a series of questions. If the series is definitive, the test allows us to exclude everything that does not belong to the group. Of course such a test still may not tell us what a thing is, in the sense of how to recognize it directly.

In the field, however, such analytic keys are unwieldy to apply and are not often used by experts. Fortunately, Pantin found that "after we have selected the 'yes' or 'no' characters, a very great deal of the impression which the organism makes upon us still remains 'unused.'" Thus field recognition can take place on another basis entirely.

Training his students to bring in specimens of *Rhynchodemus bilineatus*, a planarian worm species, he saw that since the planarian has eyes one could imagine it to have a facial expression. Thus he instructed the students to "bring me any worms that sneer at you." Of course, the student must supply the ability to see the face in terms of a sneer. He gives as another example, "The spines of the sea-urchin I am looking for have something of Chippendale about them—whilst that one looks Heppelwhite." What is at stake, of course, is the resemblance to certain types of furniture, with which the student receiving the directive is presumably familiar. Pantin observed that when he utilized such directives, the probability of collecting the right species became high.

In attempting to qualify the experience of recognition, Pantin found that it was nearly instantaneous, as was the correction of an error of recognition—for example, "For a moment I thought you were my brother." This brings it in line with the double-take: an error of perception almost instantaneously made is likewise, when detected by the "peculiar feeling of discomfort" that often accompanies it, almost instantaneously corrected. It seemed to Pantin that this sense of suddenness derived from the fact that recognition works with "the whole available impression," and detecting wholes is quite different from listing parts. The wholeness is the quality that

escapes the resources of analytic statement. A good metaphor, for example, cannot be communicated by prose paraphrase, no matter how many qualifications we add. For this reason he decided to use the terminology of "aesthetic recognition," indicating the impossibility of communicating these wholes by analytic methods while recognizing that poetic speech often captures some sense of them.

Of course we cannot define a sneer—that is, cannot propose that "someone is sneering at you if and only if, … etc."—any more than we can define a warm smile or even, for that matter, a smile. We can speak of these things only because we have first perceived them, and the language is derived from actual experience. But this property of language allows it to act as a guide to perception. Poetic speech, or good prose fiction, often has an uncanny way of presenting the feel of what happens. This ability to "present" experience vicariously is one of the things we value about metaphorical language: it has a power that allows us to detect resemblance between two different things, like a human sneer and the physiognomy of a planarian species. Such linguistic resources are termed "poetic," but they seem to produce real experience when applied to the world. The phrase "the worms that sneer at you" makes the hearer all the more likely to see *Rhynchodemus bilineatus* in terms of a sneer and thus recognize it. Language used in this way can act as a guide to experience, as a preparation for seeing in this or that manner. Professor Pantin's metaphors instruct the student's perception.

The fact that perception must be learned as a skill is often a sticking point. We would like to say that we open our eyes and things just pop up. But on careful reflection, this rather lazy notion appears to contradict experience. When I deliberately look for similarities in the leaves of plants of the order *Solanaceae* (nightshade family), or try to find an intuited connection between the flowers of the apple, pear, and wild rose, I can gain, through repeated effort, the ability to recognize at a glance the flowers of the family *Rosaceae*, or the apparent identity between the shoot structure of the potato, tomato, eggplant, nightshade, and jimson weed (*Datura*). I see no reason to suppose that this recognition is essentially dissimilar to recognizing John: it is a type of knowledge, although one that cannot be communicated by any series of propositions and can only be learned through direct experience.

It was, after all, our knowledge of cows—our recognition knowledge—that allowed us to see the cow in Figure 1. And as I have argued, such recognition knowledge can be learned—witness the acquisition of a "wise eye" for plant families that botanical training can develop. Thus it does not seem an entirely daring hypothesis to suggest that we have all gained wise eyes for the world in general. Without the proper powers of discrimination we would not be able to pick the objects of the world out of the sensible field any more than we could find the cow, or see the resemblance between members of the *Solanaceae* family that we have not trained

ourselves to recognize. But the suggestion that our activity is necessary not merely to bad photographs or subtle plant discriminations, but also to the common objects of the world that we all see so plainly, will always create resistance. For one thing we have no sense that we are active when we simply see or hear the familiar world. For another, this conclusion appears to stand the original notion of objectivity on its head.

We began in response to the worry that the observer's contribution to perception might contaminate perception. The account so far, however, has suggested that without the observer's contribution perception would have to remain ignorant of the world. Obviously, this conclusion is diametrically opposed to the more popular assumptions regarding perception. Worse yet, it invokes a form of "knowledge" that is for the most part unconscious, is impossible to communicate by analytic statements, and, unlike such statements, resists abstraction from experience. For the last of these qualifications consider that even in the special examples discussed above we intuit that this knowledge can only be gained from experience. We would gain it, for example, by actually seeing the resemblance between *Solanaceae* species. Thus, only those who have seen have this knowledge. But since this knowledge is what I have termed our "preparation" for seeing, it also seems to follow that only those who have this knowledge can see. I think that the apparent oddity of all these qualifications will fall away once the reader subjects his or her own activity to scrutiny and becomes thoroughly familiar with it. Of course, this cannot happen while we accept the rather abstract view of perception received through current literature and do not actually look at our own experience. To the reader's potential doubt, therefore, I can only argue a more searching scrutiny.

Intentionality

When I spoke above of our ability to recognize something, I opened a subject that is fundamental to any examination of experience, or any theory of knowledge, for that matter. My question, in another form, was, "How does consciousness come by an object of experience?" (where "object," of course, is taken in the purely grammatical sense: such an "object" would be any appearance, any seeming). After all, a mistaken seeming—"For a moment you seemed to be my brother"—is still an experience. And even William James's descriptive phrase for a world of raw, uninterpreted sense experience—"blooming, buzzing confusion"—is still a description of a seeming: "For a moment things seemed only a blooming, buzzing confusion." It obviously makes no sense to speak of experience that does not seem (this or that way), for without a discrimination that makes it a particular experience we cannot differentiate it from anything else,

and therefore could not notice it at all. The question can therefore be rephrased: "How do I become conscious of a seeming?"

Notice that this question is more fundamental than the one that would follow, namely, "How can I know that things are as they seem?" In order to have this problem I must first have some object of consciousness, which is to say, I must take notice of a seeming. This would normally appear rather easily done—we have only to open our eyes. But although we are not conscious of any activity on our part during normal perception, analysis of the double-take above suggests another interpretation. When we replace our first impression with a second, we take it for granted that the first perception was our mistake, thus admitting to an activity that was unconscious in the earlier moment. Our brief consciousness of this activity—during the moment when it becomes opaque to the world—recedes again as soon as perception returns to normal and our activity is transparent to its object. But we can, if we make the effort, bring this activity to consciousness more deliberately.

The intentional faculty appears to bring the sensible situation, unintelligible in itself, to intelligibility by completing what the senses leave in potential. After all, the senses in themselves do not understand; they provide sensation without relation. But phenomena are recognized—that is, grasped in terms of relations and thus understood to the degree that recognition has taken place.

"Paying attention" is a more mysterious activity than it first appears. We know it intimately, because we do it, and not at all, because we do not understand what we do. A comic couplet by Ogden Nash describes a "Water Skater," a spider-like insect that skates across the surface of the water on six long legs:

> If he ever stopped to think
> How he did it, he would sink.

A similar fate awaits those who look too closely at what is actually going on in perception. I mentioned in chapter one that in any perceptual situation one could turn away from the world to the participation of the subject and, by implication, find that the contribution of the subject was always "part" of our perception of the world. In the usual model the "parts" of perception can easily be divided into objective and subjective qualities. But when experience is carefully examined, no "part" appears innocent of our activity. The theoretical problem seems to expand

beyond hope of containment. If the world still appears to be “right there,” an understanding of the process of perception becomes more and more elusive.