## Précis of Action In Perception: Philosophy and Phenomenological Research

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We perceive as much as we do because, in a way, we perceive so little. Traditional approaches to perception have found it difficult to accommodate the distinctive *amodality* of perceptual consciousness.

Take vision, for example. If we think of what is visible in terms of projective geometry and artificial perspective, then, however paradoxical it may sound, vision is not confined to the visible. We visually experience much more than that. We experience what is hidden (occluded) and what is out of view. For example, we have a sense of the visual presence of the back of a tomato when we look at one sitting before us, even though the back of the tomato is out of view; and we experience the circularity of a plate, its actual shape, even when, seen from an angle, the circularity itself can't be seen. Or consider your sense of the detail of the scene before your eyes now. You have a sense of the presence the detail; the scene is replete with detail. But it is not the case that you seem to yourself actually to see all the detail; you can no more see every bit of detail in sharp focus and high resolution than you can see the tomato from all sides at once. Just as the back of the tomato shows up in your experience although it is hidden from view, so the detailed scene before you shows up in your experience, although the detail outstrips by far what can be taken in at a glance. The world outstrips what we can take in at a glance; but we are not confined to what is available in a glance.

The scope of experience extends to what is hidden. How far does our visual consciousness extend? We can get at this by noticing that even what is open to view – e.g. the *front* of the tomato, the visible profile of the coin, the detail on which I now focus my attention—has hidden aspects. No quality is so simple as to be grasped in its totality

in a single act of sensory consciousness. Even a *Ganzfeld*, in which the space around you is empty of detail and bathed in uniform light, as in a fog, is visually complex—there's up, down, left, right, back and front, for example; there are apparent variations in brightness; there's *this* spot and *that* one.

Perception never ends

The fact that we cannot visually grasp in totality even the simplest qualities does not prevent us from having a sense of the presence of the total qualities. And this shows that for an object to be present for perceptual consciousness is something other than for it to be *in our heads*. The world shows up for experience not as *in here*, but as *there*, as around and behind and in front of us. This is an old point, going back at least to Kant: the unity of experience does not require an experience of unity. Objects are timeless in the sense that they exist in all their propertied variety at a moment in time; objects thus always outstrip what can be taken in, perceptually, in a glance; our sense of the presence of the object with all its properties (size, shape, color, location) does not and need not consist in our experience (*per impossibile*) of all those qualities of the object at once.

This basic fact about the object's place in experience — that it transcends experience—is born out in recent work on the psychology of object and scene perception. In one demonstration, the subject is presented with a photograph of a natural scene. A woman stands besides a car at the center of the image; the background consists of normal street life – buildings, a bus, and other traffic. As the subject freely examines the picture, the car at the center gradually changes from red to blue. The change is definite and perceptible; if the viewer pays attention, it is easy to detect. But if the viewer does not pay attention, the change goes unexperienced. The demonstration (an example of "change blindness" due to Kevin O'Regan<sup>1</sup>) presents us with a puzzle: the fact that you fail to notice the change shows that, in some sense at least, you failed to experience the car's color; at the same time, it is clear that you enjoyed a sense of the visual presence of the complete scene in the photograph; there were no blank spots. In what does your sense of the presence of the car's color consist if not in the fact that you actually see it?

The puzzle thrown up by change blindness is the problem of perceptual presence: in what does your sense of the presence in perception of detail, or color, or shape, consist, if it does not consist in the fact that you actually see all of it? The tomato shows up as whole even though the back is out of view; the scene shows up as detailed even though

See O'Regan and Noë 2001, for discussion of change blindness and its theoretical significance.

much of the detail is unattended and "out of focus." The plate's circularity shows up even though it cannot actually be seen from this angle. And now we have a new version: the car's color shows up in experience even though, as we look at the car, we aren't paying attention to it. No scene is too simple to eliminate the vulnerability to change blindness; we need an account of the perceptual presence of objects, scenes, properties, colors that is compatible with the fact of change blindness.

In Action in Perception I offer a solution. Perceptual presence is a matter of access; the world shows up not in so far as it is represented (as in a picture), but in so far as it is available. We only perceive what there is; but we only perceive it when it is there, i.e., when it is, as it were, within reach. The picture metaphor of seeing is wrong not just in this or that detail; it is entirely misguided. A photograph, for example, represents the scene by recording a projection from it. A visual experience does not represent the scene in this sense at all. A visual experience is an encounter with the scene; it is an episode of access to it. We see not what projects from a point; we see what is available from a place. We have access to the tomato's back, and the plate's actual shape, just as we do to the tomato's front and the tomato's apparent shape from here. What difference there is in the character of our access to front and back, to apparent shape and shape, are matters of degree, not matters of kind. One might have thought that what makes seeing distinctively visual is the retinotopic manner of the world's projection to the eyes. But this is entirely mistaken. First, we cannot explain the distinctively visual character of seeing in this way. No one has ever made a serious proposal along these lines. And this is because the whole business of projection and perspective is a red herring. Every one grants that we don't see images in the eyes. But it is often tacitly supposed that nevertheless the images in the eyes, reproduced throughout the visual system incorporated in the brain, are in some fundamental way essential to seeing. Seeing, it is believed, is somehow bound up with imagery! But the images in the eyes and brain are no more essential to seeing than the reflections of what we see on the moist, glassy film of our eyes, or on the surface of the glasses we wear to see better (as I once heard John Hyman remark). They are literally accidental side effects.

To explain how we see, and to explain why seeing has the distinctive qualitative character that it does, we need a theory of access. In *Action in Perception* I provide such a theory. Visual experience is confined to that stretch of reality to which we have access, but not just any old kind of access; we *visually* experience only the world to which we have a certain manner of skill-based access. The most fundamental kind of skills enabling perceptual access to the world are *sensorimotor skills*.

By sensorimotor skills I don't mean the ability to use what you see to guide action. Not all seeing is for action in this sense. I also don't mean the ability to act so as to control what you see. Nor do I mean that seeing requires action in the sense of movement. Granted, you need to move your eyes in order to see; but there is no deeper sense in which movement is necessary for seeing. It is possible to see something in a unit of time too brief for one to make movement. By sensorimotor skills I have in mind something more basic, namely, an understanding of the way in which sensory stimuli change as a result of movement. That movement does systematically affect sensation is plain. Movements of eyes and head and body make for changes in one's sensory relation to the world around one. Seeing, I argue in Action in Perception, is an activity of exploring the environment drawing on one's understanding of the ways in which one's movements affect one's sensory states. What makes seeing different from any other modality is the distinctive character of the sensorimotor dependences governing the exploration of the world in that way.

To see something, then, is to interact dynamically it with in a manner that one understands, i.e., making use of one's comfortably familiarity with the way one's own movements affect one's relation to it. The back of the tomato is present to me now in so far as I know, now, that by the merest movement I can modulate my relation *to it*. And I achieve contact with the plate's circularity when I appreciate the manner in which my changing relation to the plate affects my sensory state. To see an object is to stand in a relation to a thing that is characterized by the exercise of a range of characteristic sensorimotor skills.

That's the basic picture that is presented in Action in Perception. I have already noted that the view is not committed to the idea that seeing requires moving or acting. I refer to the view in Action in Perception as enactive, or sensorimotor or (in recent writing) as actionist, in order thus to call attention to the substantive and essential relation that the view posits between perception and action. But the view is not that perception requires movement, or any of the related views, discussed briefly above. According to the view laid out in Action in Perception, knowledge or understanding plays a fundamental role in fleshing out the interrelation of perceiving and acting. Perceiving is an activity of exploring the environment drawing on an understanding of the ways in which one's movements affect one's sensory relations to things.

In Action in Perception I am explicit that perception depends, in this fundamental way, on understanding and knowledge. Indeed, a further aim of the book is to offer on an approach to perceptual consciousness that treats perceptual consciousness as continuous with the rest of our cognitive lives. Perceptual consciousness requires understanding.

Sensorimotor understanding plays a critical role in the account, as my emphasis here brings out. But sensorimotor understanding, crucially, is meant to be itself a species of a more general power of understanding which includes, among its manifestations, *conceptual* understanding. As I explain in the preface, a central claim of *Action in Perception* is that perceptual experience is a thoughtful activity.

The thoughtfulness of perceptual experience comes out, first and foremost, in the fact that perceiving is a kind of knowledgeable or thoughtful exploration of the environment. Indeed, thought, like perception, is a kind of skillful access to the world itself. Where they differ is in the character of the skills themselves. What makes a perceptual experience *visual* or *sensory* is not the distinctive character of the sensations produced in us when we see. Rather, it is the sense we make (the sense we enact) of our sensory encounter, that gives our experience the qualitative content that it has.

Thought about perception in the twentieth century has been dominated by two different kinds of extremism. Sense-datum theorists, at one extreme, insist that we don't ever "really" (or "directly" or "immediately") perceive objects; what we perceive are sense data. Sense data, for their part, are mental items, or perhaps they are mental episodes (sensations or feelings). In so far as we know the world at all, according to the sense-datum theory, we know it by way of a more basic, or more primitive encounter with mental intermediaries. So, for example, when you look at a circular plate from an angle, you don't actually directly perceive anything circular; you perceive something elliptical, an elliptical sense datum. In so far as you take yourself to be seeing something circular when you look at the plate from an angle, you are going beyond what is strictly given in experience.

The sense-datum theory faces all manner of problems, not least that it requires us to misdescribe the character of our perceptual experience. The plate and its circularity show up in the experience itself, they feature in the experience intrinsically; it doesn't at all seem to be the case that I have to go beyond the experience to bring plates and circularity into the mix. Granted, it may be impossible to tell whether it is in fact a circular plate that one is seeing, but that it is a circular plate that one seems to be seeing, that question does not arise. The critic of the sense-datum theory has common-sense realism, or naïve realism, on his or her side. No faithful description of what the experience is like can confine itself to describing mental ellipsoids.

Naïve realists, at the other extreme, don't rest content with denying that we fail actually to experience objects and their properties in perceptual experience. They go further and insist that there is no sense in which the circular plate seen from an angle looks elliptical. But in

making this strong claim they run the risk of distorting perceptual experience no less than the sense-datum theorist. After all, you can't actually *see* the circularity of the plate from here; the profile of what you see is elliptical after all. Granted, it's crazy to say that you *only* see the tomato's surface; but it is not at all crazy to notice that the back of the tomato is occluded by the tomato itself. Solid opaque objects have visible and invisible parts, and no thing that is seen can be seen from all sides at once. We encounter things from an angle, or point of view, and so what we see is, in the first instance, at least, whatever else it is, an encounter with how things happen to look from here or there, in this or that light, now.

What I have called the problem of perceptual presence comes into focus only when we appreciate that the sense-datum theorist and the naïve realist are, in a way, both right. The naïve realist is right that we are aware of the world around us in perceptual consciousness and moreover they are right that our awareness is not mediated by a more basic awareness of something other than the world around us such as, for example, mental intermediaries. But the sense datum theorist is also right that perceptual consciousness is an unavoidably perspectival affair; objects we see necessarily have visible and invisible parts; the world can show up in perceptual consciousness thanks to our sensitivity to the ways how things *look* inform of us how they really are.

Perceptual experience has two dimensions of content. We see how things are, and we see how things are *from here*. We see the wall's color and we see how it looks in this particular lighting; we see the coin's shape, and we see the coin's profile from here; we see the tomato and we see the facing side of the tomato. The solution to the problem of perceptual presence consists in recognizing that for a perceiver with the requisite *understanding*, seeing how things look *can be* an encounter with how things are. Just as holding your hand can be a way of holding you, so seeing how the coin looks can be the achievement of contact with the coin. In *Action in Perception* I argue that we perceive objects and the environment by exploring how things perceptually appear. Seeing, for example, is thus an activity of learning about the world *by* learning how things look. But crucially, the looks of things are not mental intermediaries. Exploring how things look is just a way of exploring how things are.

Understanding plays a crucial role in this account. Just as for someone who knows English, seeing scribbles on the wall *can be* an encounter with a message, so for someone who understands the ways in which our sensory relation to the world around us reflects the nature of things around us can, in seeing how things look, come into contact with how things are.