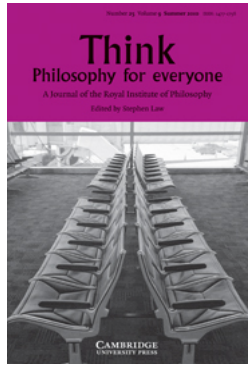

THE PUZZLE OF PERCEPTION

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THE PUZZLE OF PERCEPTION

Michael Madary

Here is an old philosophical puzzle. Take out a coin and look at it. It is a flat disk. Now tilt it so that you look at it on an angle. From an angle, there is some sense in which the tilted coin appears elliptical. But there is also a strong sense in which the tilted coin looks circular, like a flat disk. How can one object look both elliptical and circular at the same time? Thus, the puzzle of the tilted coin.

This strange feature of perception is not limited to flat disks. All the objects that we see are seen from a perspective. Furthermore, the way in which those objects appear changes as we change perspective. It seems as if we are in an odd situation: we see objects to remain constant even though the way those objects appear is in nearly continuous flux. Psychologists call this phenomenon perceptual constancy and have some theories about the mechanisms that underlie it. But perceptual constancy has also troubled philosophers for a while. Here I am going to discuss some ways that philosophers have tried to account for this puzzle, but first I will mention why philosophers would care about it anyway.

Perception is at the core of a lot of philosophical inquiry. In epistemology, one might claim that perceptual states can justify our beliefs. In metaphysics, one might ask whether or not perception can reveal the mind-independent world. Perception is directly relevant to these traditional philosophical disciplines, but the tilted coin shows us that perception itself is philosophically puzzling. On one hand, it looks like we need an understanding of perception to carry out basic investigations in epistemology and metaphysics. On the other hand, the very nature of simple perception looks to be problematic. Philosophers worry about the puzzle of

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perception both because it is interesting in itself, and because one's approach to this puzzle can have consequences for one's approach to other philosophical issues. Also, some researchers are enthusiastic about the possibility of an interdisciplinary science of consciousness (though others are deeply sceptical). If such a science is ever to materialize, presumably a part of it may include an adequate description of perceptual experience, of what it is like to see the world. Philosophers might be able to make a contribution in this regard.

To return to the main example of the puzzle, how can the coin look both circular and elliptical at the same time? Perhaps the easiest way to deal with this question is to point out that it is a loaded question. The question assumes that the coin does look both circular and elliptical at the same time. Some philosophers have simply denied this assumption; they have claimed that the coin looks circular, like a flat disk. They have also insisted that there is no sense in which the coin looks elliptical. This is one straightforward way to avoid the puzzle. A problem with this reply is that it seems to leave something out. Even if we grant that there is no sense in which the coin looks elliptical, there remains the interesting fact that the coin looks to remain a flat disk across a wide variation in appearances (variation in viewing angles, for instance). A philosopher who denies seeing an ellipse still cannot deny that the coin looks to remain static across changes in appearances. We can avoid one question only to raise another: how do we see objects to remain static across continuous variation in the way they appear? Again, this question is not meant to investigate the sub-personal psychological mechanisms which enable visual perception. Instead, this question aims to make sense of what happens in our first-person perceptual experience.

Besides avoiding the question, another way to deal with the puzzle of perception is to appeal to sense-data. This approach has roots in Hume and was made popular during the 20th century by G. E. Moore and Bertrand Russell,

among others. Despite its relatively recent popularity, sense datum theory is currently out of favour among professional philosophers. Anyway, let us again ask: how can the tilted coin look circular and elliptical simultaneously? The sense datum theorist claims that the object of our perceptual act is the elliptical sense datum. On the basis of this sense datum, we *infer* the presence of a flat disk. According to this view, we are in direct contact with sense data, and it is in virtue of these sense data that we can infer there to be stable worldly objects. Not only was this theory intended to deal with the puzzle of perception, it was also an epistemological theory. For the classical sense datum theorist, we are in direct contact with sense data and these sense data serve as the indubitable foundation for knowledge.

Why has the sense datum theory fallen out of favour? Some of the criticism of the sense datum theory is motivated by epistemological concerns. For one thing, it is not clear how sense data relate to cognitive judgments about reality. It is natural to think that judgments are propositional, such as 'there is a tilted coin before me'. But it is not clear that our direct and private experience of sense-data could be propositional. The concern, then, is that the sense datum theorist wants sense data to be both purely given to us on one hand, and cognitively or conceptually relevant, on the other. Many have agreed that sense data cannot play both roles. Epistemological worries aside, a lot of contemporary philosophers reject sense data because of their questionable ontological status. Are they physical or mental or neither? Sense data are strangely in between mental and physical reality; at the very least, they are not objects of study in natural science. Thus, any philosopher who uses natural science as a guide to reality is not going to be friendly to sense data.

Another 20th century attempt to deal with the puzzle of perception can be found in the phenomenological tradition starting with Edmund Husserl. Within this tradition, the partial, or perspectival, nature of perception takes centre

stage. The coin is seen to be a flat disk from a particular perspective. The changes in appearances of the coin are understood as sensuous intuitions which either fulfil or disappoint our implicit anticipation. The ellipticality is merely evidence for the perceptual representation of a tilted coin. For example, as I hold the coin in my hand and tilt it, I implicitly anticipate that the appearance of the coin will change in a particular manner. If this anticipation is fulfilled, I have increasing evidence for the fact that I am really holding a flat disk. If my anticipation is disappointed, I have reason to re-evaluate my perceptual representation of the flat disk.

Notice that this is a rich – perhaps too rich – response to the puzzle of perception; it requires a lot of theoretical machinery. The phenomenologist incorporates anticipation, bodily action, and temporal extension just to explain a mundane perceptual occurrence. Is perception really that complicated? Opinions diverge here. Many seek a simpler explanation of the puzzle of perception. Another worry about this phenomenological approach is that the more theoretical machinery imported from sheer first-person insight, the more room there is for disagreement. For instance, contemporary philosophers who are influenced by the French phenomenologist Maurice Merleau-Ponty account for the puzzle of perception in part by rejecting Husserl's commitment to anticipation.

If the sense datum theory has plenty of enemies, and the phenomenological tradition brings too much complication, how do contemporary philosophers deal with the problem of perception? There are neo-sense datum theorists as well as contemporary phenomenologists, to be sure. But many philosophers opt for a third way, what one could call an objectivist approach to the puzzle of perception. For the objectivist, we simultaneously represent two different types of mind-independent properties in perception. On one hand, we represent the coin to be a flat disk. On the other hand, we represent the appearance or perspectival property of the coin to be an ellipse. In contrast with the sense

datum theorist, the appearance property is an objective feature of the mind independent world. It follows that, against the phenomenologist, the appearance property is not merely evidence, nor is it tied up with action, anticipation, or temporality. Of course, I am generalizing a great deal here. Many philosophers accept the objectivist commitment to appearance properties while borrowing some themes from phenomenology and the sense datum tradition. One point to be made here, though, is that it remains an area of ongoing (and I think interesting) research.

One worry about the move to appearance properties is that the details remain thin on what appearance properties actually are. Often philosophers understand appearance properties to be whatever normally causes particular sensations in normal perceivers. Other philosophers try to flesh out an account of appearance properties without appeal to the causal connection to particular perceivers. For instance, one could understand the elliptical appearance of the tilted coin in terms of the actual shape, the ellipse, which would perfectly occlude the coin from sight.

A complication with the appeal to appearance properties is that there are some common viewing conditions in which it's not clear whether what we see is an appearance property or just an illusion. For example, hold your finger up right in front of your eyes and fixate on something in the distance. Attend to the appearance of your finger while keeping your eyes fixed on something in the distance. How does your finger appear? Doubly? Transparently? Are these mind-independent appearance properties of your finger, or are they illusions? It's not clear what to say in this situation. If the tilted flat disk is big enough, a plate for instance, maybe we see a part of that doubly too. Focus your eyes on the far edge of a tilted plate and attend to how the near edge appears. Is the appearance property determined by the way the plate appears or by something else? I'm not sure we have easy answers here.

Anyway, take out that coin again and decide: what do we see? The sense datum theorists say we see an elliptical

sense datum, the phenomenologists tell a complicated story about anticipation, and a lot of contemporary philosophers say we see both the appearance property of an ellipse and the factual property of a flat disk. What do you think?

My sympathies are with the phenomenologists, but I'm more concerned here with the widespread disagreement. Is there any way to settle this debate? One option is to argue from the philosophical costs of each position. For instance, one could reject the sense datum theory because it doesn't fit with a naturalistic world view. (Those sense data are weird little entities!) Another option is to try to use experiments to settle things. Sean D. Kelly has taken this route by collecting data on the unconscious effects of looking at tilted coins.

One more option is to be a sceptic about the first-person description of perceptual experience. Dan Dennett has championed this approach. Here is one of Dennett's famous examples meant to show support for scepticism about first-person description: take a playing card out of a deck and do not look at it. Then, look straight ahead and try not to move your eyes. Elevate your arm with the card to the point that you're holding the card at eye level, but keep your arm out to your side so that the face of the card is in the extreme periphery of your visual field. (Don't move your eyes!) Slowly move your arm inward so that the card moves closer and closer to your centre of vision. Most people are surprised at just how far they must move the card until they can see it in enough detail to identify its suit, for example. Dennett takes this surprise as evidence that we are grossly mistaken about our own visual experiences: we believe (wrongly) that we see the world in all its detail, but the card experiment shows that we only see in detail the very small area on which we can focus. If we're way wrong about the detail in which we see the world, then maybe we could be way wrong about the puzzle of perception too. Maybe there's just no fact of the matter about whether we see the elliptical appearance of the coin, or the flat disk, or both.

Still, scepticism about the way the world appears to us seems tough to stomach. Perception is our most basic contact with reality and it would be nice to have an illuminating account of it. The fact remains, though, that centuries of philosophical work has yet to solve the puzzle of perception. Answers or not, I think it's fascinating to think about. I particularly like the fact that philosophy can start with such a mundane question: what do we see?

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