I have never taken the history of philosophy as seriously as I no doubt should have. I realize that the great geniuses of our tradition were vastly better philosophers than any of us alive and that they created the framework within which we work. But it seems to me they made horrendous mistakes. Many of these mistakes were based on certain false assumptions on the basis of which they did their work. In the period of philosophy, so-called ‘modern philosophy’, that begins with Descartes and continues through Kant and really to the present, there were two mistakes, maybe three, that colored and corrupted the whole enterprise. The first and worst mistake was about mind and body. Modern philosophers assumed, and many still assume that if consciousness is not reducible to some ‘material’ (objective, third person) phenomena, then it must exist in a separate ontological realm. Once this false assumption is made we are off and running with the traditional ‘mind-body’ problem or problems. The idea is that, if consciousness is not a physical property or process like digestion or photosynthesis, then it must be in a non-material, non-physical, non-biological realm. And consequently, some form of dualism is true. It might be property dualism, but still, it is a form of dualism. I cannot exaggerate the extent of the disaster that this produced in the history of philosophy. The second mistake almost as bad is the view that we do not directly perceive objects and states of affairs in the world. For this view famous arguments were advanced, and I am going to argue in this article that the arguments are all variations on a single bad argument, which I will honor with the capital title “The Bad Argument”.

A third mistake, almost as bad as the other two, is about causation. The idea for which Hume is mostly responsible, is that causation is not a real relation between objects and events. The only fact that corresponds to any particular causal claim, such as the claim that the earthquake caused the collapse of the freeway, is that there is a set of laws that this particular instance exemplifies. The laws need not make a mention at all of earthquakes and freeways, but if that event is to be generally causal, there must be some law which it instantiates or exemplifies.

**Note:** This article provides a summary of some of the themes stated more thoroughly in my book, *Seeing Things as They Are: A Theory of Perception*. Oxford/New York, Oxford University Press, 2015.

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1 The Elements of Visual Perception

Before exposing the Bad Argument I need to state at least in summary form what I think is the correct view of perception. Because most of the tradition is about vision and in fact most of our perceptual information comes from vision I will concentrate on seeing rather than the other perceptual faculties.

From where I currently sit on the California coast south of Half Moon Bay I can see a tree and a tiny fragment of the vast Pacific Ocean. What are the components of my present conscious visual experience? It seems to me we can identify the following components:

1. There are first the objects and states of affairs I’m seeing.
2. Light reflected off these objects and states of affairs strike the photoreceptor cells and cause a sequence of events that eventually results in a conscious visual experience.
3. The causal relation between the object and the visual experience has to be of a certain type. If I am seeing the object on a movie screen even though there is a causal relation between the object and the visual experience it is not of the right type, I am not directly seeing the object but only seeing a movie of the object.

So we have identified three elements, the object, the causal relations between the object and the perceiver, including causal relations going on inside the perceiver’s head, and the conscious visual experience going on in the head of the perceiver, as far as we know in the cortex.

4. A fourth feature of the situation is that the visual experience has intrinsic intentionality.

The experience sets conditions of satisfaction, and these conditions are those under which the experience is veridical as opposed to those conditions under which it is not veridical. Confining ourselves to seeing the tree in front of me we can say that the conditions of satisfaction of the visual experience are that there has to be a tree there and the fact that the tree is there is causing in a certain way the current visual experience. So on this account the visual experience in its conditions of satisfaction is causally self-reflexive in that the causal condition refers to the perceptual experience itself. If the perceptual experience could talk it would say, “If I am to be satisfied (veridical) I must be caused by the very object of which I seem to be the seeing.”

This type of intentionality is also unusual in that the conscious visual experience gives me a direct presentation of its conditions of satisfaction. Perception differs from such philosophers’ favorites as beliefs and desires because they are,
in an ordinary sense, ‘representations’ of their conditions of satisfaction. There are important differences between representations and presentations. Perhaps the most important is that the presentation cannot be separated from its conditions of satisfaction in a way that representations can. If I believe that it is raining I can separate my belief from the fact that it is raining, but when I see the tree I cannot separate the visual experience from an awareness of the presence of the tree. This is true even if it is a hallucination and even if I know that it is a hallucination. In such a case, I have the experience of the perceptual presentation of an object even though there is no object there. A great deal of philosophical confusion surrounds this last point and we will come back to the problem of hallucinations shortly.

This view so far stated is a version of ‘perceptual realism’. I think it is best called ‘naïve realism’ but that term has been appropriated by a very confused view called ‘Disjunctivism’ so I will call the view Direct Realism. It is called ‘direct’ because it says you perceive objects and states of affairs directly and not by way of perceiving something else first. It is ‘realism’ because it says you really do perceive real objects and states of affairs in the world. I think this account of perception is obviously right but none of the great philosophers of the modern era accepted it. By great philosophers in the modern era I mean Descartes, Leibniz, Spinoza, Locke, Berkeley, Hume, and Kant. For the sake of completeness I will throw in Hegel and Mill.

2 The Bad Argument

I think the great philosophers of the past rejected Direct Realism because of an argument which was, until recently, quite commonly accepted among members of the profession. Some of them thought Direct Realism was so obviously false as not to be worth arguing against. There are different versions of it but the most common is called ‘the argument from illusion’ and here is how it goes.

“You said that you directly perceive the tree, but suppose it is a hallucination. And suppose the hallucination is type identical with the veridical experience. What do you see then? It is obvious that you do not see the tree but only the visual experience itself, what the traditional philosophers called an idea, an impression, or a sense datum.”

The argument has been so influential that it is worth spelling out.

1. The hallucination and the veridical experience can be type identical. This is why the possibility of hallucination is so distressing. The perceiver herself could never tell a difference just from the character of the experience whether it was veridical or hallucinatory.
2. Because they are identical you have to give the same analysis of each.
3. But in the hallucinatory case you do not see a material object.
4. But you do see something. There is no question that this is an instance of visual perception. Hallucinatory or not, there is a seeing of something.
5. But the something is not a material object. Give it a name, call it a “sense datum”.
6. But by 2. you have to give the same analysis of each, so if you don’t see a material object in the hallucinatory case, you do not see one in the veridical case. In both cases you see sense data. Indeed, all we ever perceive are our sense data.

If you accept this argument then philosophy has an impossible question: What is the relationship between the sense data you do perceive and the real world that you do not perceive? The philosophy of perception over much of the past 300 years has been devoted to giving bad answers to this confused question.

3 A Variation on the Bad Argument: The Argument from Science

There is a variation on this argument which, given the scientific outlook of the present era, is probably more influential than the classical argument from illusion. Here is how it goes.

“You told us earlier that visual experience takes place when photons strike the photoreceptor cells and set up a series of causal events that eventually results in a visual experience in the cortex. But it is of that visual experience that we are visually aware. The science of vision has proven that the only thing you can actually see, literally, scientifically is the visual experience going on in your head. We might as well have a name for these visual experiences. Call them ‘sense data’. All you ever perceive are sense data, and by way of vision all you can ever perceive are visual sense data.”

The question then arises: what is the relation between the sense data you do perceive and the objects in the states of affairs in the world that you cannot perceive or at least cannot perceive directly?

A paradoxical version of this argument is attributed to Bertrand Russell. According to Russell:
1. Science presupposes naïve realism (because the scientist has to presuppose that in doing his experiments he is perceiving the real world).
2. But science refutes naïve realism.
3. Therefore, naïve realism if true, is false.
4. Therefore, naïve realism is false.

Francis Crick accepted the argument from science and even thought we had to postulate a homunculus who is perceiving the experiences in our head.

What shall we say about the bad argument in both of its versions? I think in spite of its enormous influence it rests on a simple fallacy of ambiguity over ‘see’ and other perceptual verbs.

The crucial step in the argument from illusion as stated is step 4. The step that says you do see something even in the hallucinatory case. But that is a mistake. In the ordinary sense of ‘see’ in which I now see the tree, in the hallucinatory case I do not see anything. That is what makes it a hallucination. The visual experience in the two cases can be exactly the same, by stipulation. But in one case something is seen and in the second case nothing is seen. But surely one might say you did see something. It was after all a visual experience.

I think we can introduce a sense of ‘see’ to describe our visual experiences but that sense of ‘see’ is quite different from the ordinary sense because the truth of the statement does not imply that there really is an independently existing object seen. Indeed, I want to make a strong claim now. Though the visual experience definitely exists, it is not and cannot itself be seen. When you consciously see something you have a visual experience but you do not see it. This is not because it is invisible but because in the veridical case it is the seeing of the object. And the seeing cannot itself be seen. In the hallucinatory case the experience, by stipulation, is exactly the same, but it is not a seeing but a seeming to see. Because it is a hallucination nothing is seen. In the hallucinatory case, there is no independently existing object causing the experience.

Visual experiences are real and they are not the same as the objects perceived. The simple proof of this is, if you close your eyes, the visual experience stops, but the object you perceive does not stop. The visual experience is a conscious event going on in the brain but, and this is the important point, visual experiences cannot themselves be seen because they are the seeing of objects and states of affairs in the world. When you see something, the seeing itself cannot be seen, just as when you hit a nail with a hammer the hitting cannot itself be hit.

4 Refutation of the Bad Argument

The fallacy in the Bad Argument is that there is an ambiguity in the verb ‘see’. In the sense in which I see the tree, I do not see a sense datum. Once this fallacy is
removed, it is obvious that the argument is fallacious because, in the ordinary sense of ‘see’ in the hallucinatory case, I do not see anything. It is perfectly possible to introduce a sense of ‘see’ that is quite different from the ordinary veridical sense because the true statement in that sense does not imply the existence of the object and the causal relation between the object and the visual experience. You can then say you see the hallucination but you only ‘see’ in a derivative and parasitical sense the visual experience.

The argument from science commits exactly the same fallacy, though in a more disguised form. The scientist says we are trying to explain the cause of your visual experience and what we discovered is neurobiological processes cause a conscious visual experience. But then, surely, it seems that the visual experience is the object of your capacity of perception. It is what is seen. This last sentence embodies the mistake. The visual experience is not seen because it is the case of seeing the object. As I said earlier, we could artificially induce a new sense of ‘see’ but I think it is almost always fallacious to do so because it gives us the idea that there is an object of perception in both the hallucinatory and the veridical case. In the hallucinatory case, there is no object of perception, and in the scientific case, there is indeed a perception, but the perception is not itself an object of perception. The relation of perception to the experience is one of identity. It is like the pain and the experience of pain. The experience of pain does not have pain as an object because the experience of pain is identical with the pain. Similarly, if the experience of perceiving is an object of perceiving, then it becomes identical with the perceiving. Just as the pain is identical with the experience of pain, so the visual experience is identical with the experience of seeing.

It may seem odd to say that such a huge movement in philosophy, traditional perceptual epistemology, should be based on such a simple fallacy. But I think in fact it is. The great philosophers took the falsity of direct realism for granted because they thought it had been decisively refuted. But the refutation was fallacious for reasons I have tried to state.

5 The Hierarchical Structure of Perception and the Intentionality of Perception

Perception, and again we are confining ourselves to visual perception, is remarkably complex and sophisticated. I am able to not just see colors and shapes, but I can recognize faces of people I know even though I only catch a glimpse of a part of the face. I can recognize all sorts of objects even though the stimulus I receive in my perceptual input is quite degenerate. How does it all work? The first thing
to notice is that perception is *hierarchically structured*. So let us suppose I am looking at a car and I see that it is my car. Now, in order to see that it is my car, I have to see that it is a particular type of car. In order to see that it is a particular type of car, I have to see that it is a car. In order to see that it is a car, I have to see certain colors and shapes. The hierarchical structure of perception is mirrored in the hierarchical structure of action. In order to shoot the target, I have to fire the gun. In order to fire the gun, I have to pull the trigger. In order to pull the trigger, I have to squeeze my finger. So you get a complete parallelism between the hierarchical structure of perception and the hierarchical structure of action even though the direction of fit and the direction of causation are opposite in the two cases. Perception has the mind-to-world direction of fit and the world-to-mind direction of causation. That is just the fancy way of saying that the perception is satisfied or unsatisfied depending on how the world is in fact independently of the perception (mind-to-world direction of fit), but the world being that way has to cause the perception to be that way (world-to-mind direction of causation). In the case of action, you have the world-to-mind direction of fit, that is, the intentional content of the intention is satisfied only if the world changes so as to match the content of the mind. That is what is meant by world-to-mind direction of fit, but that is because, in the case of intentional action, the contents of the mind cause the world to be the way that it is, and that is what is meant by saying there is mind-to-world direction of causation.

6 The Break Between Phenomenology and Intentionality

Notice that the phenomenology does not match the intentionality at all closely. Typically, the phenomenology is just that I see the top level, I see that it is my car. A good example of this is a clock face. If I ask my students to describe the clock face of the Campanile in Berkeley, typically, they cannot do it. They look at this clock face several times a day, but they only attend to what time it is. They do not pay attention to whether the numerals are Roman or Arabic, how many numerals there are on the face, etc. They just look at it and see the top level, what time it is. Nonetheless, in order to see what time it is, you have to see the hands and you have to see the clock face. So the actual intentionality of the perception does not match the phenomenology of the experience except imperfectly. The phenomenology experienced is that you just see what time it is. But the intentionality of perception requires that you see the details of the clock face in order to see what time it is.
The issue here is of so much importance that it is worth pausing to consider in a bit more detail. For practical reasons of living in the real world, we typically focus our perceptual attention on those features of the object that are most interesting to us. I see the thermos in front of me and immediately see that it has a screw top. I see the letter in front of me and immediately notice who it is from. I look outside and I see buildings and trees. Why would I ever think that, in order to do that, I have to see colors and shapes? You cannot see the higher level, for example that it is a car, unless you see the lower level phenomena, that it has the shape of a car and certain colors. The problem is one of attention. If asked what you see, you will typically state the highest level in the hierarchy. I saw my car, I saw my wife, and I saw the Campanile. But, in order that you should see those at all, or see anything at all, you have to see such things as colors and shapes. If you analyze the structure, you will see that the higher level intentional content, I saw my car, has to be structured on the lower level intentional contents until, finally, you reach the bottom level of basic perceptual features.

In the hierarchical structure of perception I need to distinguish between the basic perceptual experience, which is a perception of a basic perceptual feature, on the one hand and higher level perceptions and higher level features, on the other. A basic perceptual feature is something you can perceive without perceiving anything else by way of which you perceive it. A basic perceptual experience is an experience whose intentional content is that of a basic perceptual feature. Examples of basic perceptual features are colors and shapes. So in the higher level perception that it is my car, the perception of its color and shape are basic, but the perception that it is a certain type of car and that it is my car are higher level.

7 How the Raw Phenomenology Fixes the Intentionality

We now have an interesting question, what fact about the raw phenomenology of the perceptual experience gives it the intentional content that it has? After all, my experience of red is an event in the world like any other event, yet it seems to have intrinsically the experience of seeming to see something red. It seemed to have the intentionality built into it. Notice that the word ‘red’ does not in that way have intrinsic intentionality. We could have used a different word to refer to the color red, and indeed of course in other languages, the word is different. The relationship between the word ‘red’ and the color red is purely conventional, but the relationship between my experience of red and the color red is not at all conventional. The intentionality there is intrinsic. This ought to strike us as puzzling,
and often it is the case in philosophy that only when we reflect on something we take for granted that we can see that it is in fact puzzling. The puzzle is that the experience of red is an event in the world like any other, such as for example, the experience of pain or the experience of drinking beer. What fact about that experience makes it intrinsically, essentially, an experience of seeming to see something red? What gives it that particular intentional content?

There are several wrong things to say in answer to this question and we need to avoid saying these wrong things. The first is to say, well the experience is itself red. It is tempting to say that because, of course, that is how we would naturally describe it in a pre-theoretical way. But that cannot be quite right because red is a color that can be seen by anybody, whereas my experience is, in the usual philosopher’s sense, ‘private’ to me. Only I can have this particular experience. Furthermore, red can be seen, and as we have seen over and over, the experience cannot itself be seen because it is the seeing of anything.

What fact about this experience makes it the case necessarily that it is the case of seeming to see something red, that it has intrinsically the intentionality that it does?

The answer that I am going to propose to this is as follows: In the case of the basic perceptual experiences, there is an internal connection between the character of the experience and the features of the object perceived, in the sense that part of what it is for something to be red is for it to be capable of causing experiences like this, and similarly with other basic perceptual features such as the straightness of a line. Part of what it is for something to be straight is for it to be capable of causing experiences like this. Now of course, this is not the whole definition of ‘red’ or ‘straight’ and, as we acquire more scientific or geometrical knowledge, we will often add further features to the definition, but for present purposes we can say that the internal connection between the experience and its intentional content derives from the fact that the intentional object of the experience, the redness of the surface or the straightness of the line, is internally related to that experience, because part of the definition, part of the essence of what it is to be a feature such as red or a feature such as a straight line, is to be capable of causing experiences like this.

The notion of ‘an internal connection’ is explained as follows. If A is internally related to B, then A could not be what it is if it did not have that relation to B. The claim I am making is that, for the basic perceptual features, there is an internal relation between the feature itself and the capacity to cause certain sorts of experiences. This explains the intentionality, the intrinsic intentionality of those experiences. So, I could not be having this very experience without it seeming to me that I am seeing something red. Even though the experience is an event in the world like any other, all the same, it could not be that very experience if it were
not the case of seeming to see something red. The reason for this is that in order for something to be red, it has to be capable, under appropriate conditions, of causing experiences like this one.

We have lost sight of one of the insights of traditional empiricism. The mistakes of the atomistic account of experience and the poverty of the traditional empiricist theory of language are so obvious that we have lost sight of some of the correct legacy that they have left us. The legacy they left us is that there was an essential connection between the experience and knowledge. My experience gives me direct access to the existence of red things in the world. The traditional empiricists recognized a distinction between what they call complex and simple ideas, it is between the idea of red, which is simple, and the idea of a car, which is complex. We now find this atomism to be naïve and inadequate. I think it is. But there is a truth underlying it, and that is the hierarchical structure of perception. In order to see that it is my car, I have to see several other features. But in order to see those features, I do not have to see that it is my car. So I have to see, for example, that it is a black car, but I could see that something is a black car without seeing that it is my car. So you have an asymmetrical relation of dependency, on which the complex features are dependent on the basic features. I have put this, not in terms of the traditional empiricists jargon of simplicity and complexity, but rather as a hierarchical structure.

The unfortunate features of traditional empiricism are that they had no theory of intentionality and no adequate theory of perception. However, if you add those to their insights, then I think you get something like the claims that I have been making.

8 Conclusion

In spite of the fact that perception has been a subject of philosophical investigation for literally centuries, indeed millennia, it seems to me we are really only getting started on the subject. Most of the authors I have read make one or more of several mistakes. Firstly, they accept the Bad Argument. They think that somehow or other, the experiences are themselves the object of the experiences. I think that argument is a mistake and it is immediately perceivable as a mistake once you grasp it. Disjunctivists are unusual in that they accept the validity of the argument and they see that if valid it refutes naïve realism; but in order to preserve naïve realism they deny the first premise, they deny that the veridical perception and the corresponding hallucination can be type identical. This is worse than bad philosophy, it is bad neurobiology. Secondly, we only recently have begun to have
enough neurobiological evidence to have some idea of how the stimulation of the photoreceptors, in the case of vision, or the various nerve endings, in the case of the other modes of perception, eventually gives rise to conscious visual and other experiences. Thirdly, very few authors appreciate the intentionality of perception. I think once you understand intentionality of perception, then you are off and running with the possibility of a really good theory. I have not presented that theory in this paper. I have only been concerned with really three issues: (i) the Bad Argument, (ii) the hierarchical structure of perception, and (iii) the way raw phenomenological content fixes intentional content in the case of vision.