Book Review

John Searle on Perception – Review

John R. Searle: *Seeing Things as They Are: A Theory of Perception*. Oxford/New York: Oxford University Press, 2015, 240 pp, 17.49 GBP. ISBN: 978-0-19-938515-7

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John Searle's latest book, *Seeing Things as They Are* (2015), is wholly devoted to perception, and defends a kind of direct realism. Here, he tries to develop and terminologically improve on the views on perception he put forward in *Intentionality* (1983). I have ever since I read that book in 1984 been waiting for such an attempt, but I am deeply disappointed with the result. His analysis of perception in the early book suffers from serious problems, but the new book does not solve them either. So I will be critical. Moreover, I will sometimes use pejorative terms just as easily as Searle does in his new book.

I start by stating: Searle's way of handling what I call *the time difference problem* is scandalously bad, and his explanation of why a number of great philosophers have – to both his and my mind – gone wrong, is shockingly simplistic. In Section 2 and 3 I will substantiate these two harsh statements.

Potential readers of the book should know that it is meant to be self-contained. Searle thinks that one need not have read *Intentionality* in order to understand the book.

Being in Agreement with Searle

My forthcoming criticism notwithstanding, I do with some qualifications agree with Searle's criticisms of mainstream disjunctivism (ch. 6), some popular views about unconscious perception (ch. 7), and the classical theories of perception (ch. 8). These chapters end the book.

To anti-Searlians who know me superficially, I guess I look like a true Searle fan. Here is a list of five of the important views that I share with him. First, all kinds of reductive materialism are obviously false (away with philosophers such

as Patricia Churchland and Daniel Dennett); positively put, there are states, acts, and events of consciousness. Second, normally such phenomena contain non-reducible intentionality (away with consciousness-positing philosophers such as Barry Dainton and Galen Strawson); moreover, I accept Searle's intentionality-explicating notions "conditions of satisfaction" and "direction of fit." Third, all kinds of consciousness phenomena have to be understood within a naturalist framework (away with all intentionality-stressing phenomenological philosophers who have decided for ever to stay within the early Husserl's famous bracketing of the external world – his "*epoché*" – or, like the later Husserl, have ended up in some kind of idealism). Fourth, the kind of consciousness phenomena mentioned are for their existence dependent on some completely material substrate such as a brain (away with all idealists and phenomenalists). Fifth, if evolutionary biology is true, there must be an important kernel of truth in what philosophers label naïve realism (away with consciousness-and-intentionality accepting representationalist philosophers such as Tyler Burge and David Chalmers).

Searle and the Time Difference Problem

According to naïve realism, we can perceive mind-independently existing things, properties, events, and processes. We are not stuck within our own minds. In Searle's conceptual apparatus and kind of direct realism, the difference between a veridical seeing and a corresponding visual hallucination can be described thus:

> Veridical seeing $=_{df}$ there is a subjective visual experience with an intentional content whose conditions of satisfaction are satisfied; apart from the *intentional content* there is also an *intentional object* that supplies the satisfaction.
>
> Visual hallucination $=_{df}$ there is a subjective visual experience with an intentional content whose conditions of satisfaction are *not* satisfied; there is no intentional object, only an intentional content.

Both the kinds of experiences mentioned are by Searle regarded as being wholly localized within a brain. Nonetheless, because they have intentionality, i. e., have conditions of satisfaction, both may in principle be connected to states of affairs outside of the brain, but only the one that is satisfied is so connected. In veridical seeing there is, in the sense described, some kind of connection at a spatial distance between a subjective experience and an objective state of affairs.

However, naïve realism makes an even stronger claim, which Searle also tries to defend. And now he fails. When we see an ordinary macroscopic thing,

not in a mist and not through a dirty window, but in broad daylight and with nothing except air between us and the thing, then we see it *directly*; the thing is *presented* to us, not represented by something such as a memory or picture.

On the other hand, we also know that for such perceptions to take place, there must exist a causal process that runs from the thing to our brain. This seems to imply that we always perceive things *indirectly*. Since the causal process starts at a distance from the brain, a distinction has to be made between a distal cause (the thing in question) and a proximal cause (the brain). And on this view, the thing perceived ought strictly speaking to be regarded as only *represented* to us. The problem for philosophers such as Searle and me, who subscribe to the views listed in Section 1, is how to reconcile the two seemingly irreconcilable views described.

It's like the old problem of squaring the circle; no figure can be both a circle and be made up only of squares, and no perception can be both direct and indirect, or be both a presentation and a representation. Searle lays claim to have solved the problem, but – I am honestly sorry to say – he has definitely not.

In one sense he "solves" the problem by a mere verbal trick. In Searle's terminology, what is traditionally called presentations and representations, respectively, have a feature in common: both have conditions of satisfaction. Now, Searle simply by stipulation defines "representation" as what has conditions of satisfaction; which of course means that he can consistently say: *presentations are representations*. In other words, he squares his circle by making the term "representation" contain an ambiguity between a genus-meaning and a species-meaning. I don't know what epithet to apply to such an obscurity creating move from an obscurity hating philosopher like Searle. Here are his own words:

> Technically speaking, if we define "representation" [the genus] as anything that has conditions of satisfaction, then presentations are species of representations. All the same, we need to contrast [the species] presentations with representations [i.e., another species] generally. (p. 61)

Leaving this extraordinary bad semantic move from Searle aside, I will in what follows discuss only his use of the terms "direct" and "indirect." When Searle claims that in veridical perceptions we do really *directly* perceive states of affairs in the external world, he is *not* trying to redefine the ordinary notion of direct perception. I quote:

> [P]erception is *direct* in the sense that you do not perceive something else by way of which you perceive the scene. It is not like watching television or looking at a reflection in a mirror. (pp. 11–12)

Think now of the following situation. You are standing on a hill and are directly seeing a specific event about one kilometer away, a car driving into a tree. About

three seconds later, you can also directly hear the event. As we can perceive the property shape by means of two different sense modalities, seeing and touching, we can perceive some events by means of two different sense modalities, seeing and hearing. On Searle's analysis of perception, the conditions of satisfaction are in both the seeing and the hearing case mentioned satisfied, which means that he is – if true to his analysis schema – forced to say that we *directly* both see and hear the car accident.

But this cannot possibly be the case. Since there is a time difference between the two veridical perceptions, both cannot be direct. That would mean that one and the same car accident takes place at two different time points three seconds apart. I find it remarkable that Searle does not see this problem clearly.[1]

So far, the time difference problem has arisen without any talk about causal processes. The presuppositions are only: (i) that both the seeing and the hearing are of the same event, and (ii) that in both the cases there is direct perception.

Therefore, philosophers who do not take it for granted that light has a finite velocity can try to solve the problem by saying, that it is only by means of sight (and perhaps touch) that we literally have direct perceptions; from a philosophical point of view hearing should be reckoned a case of indirect perceiving. Such a solution is of course not available today. Already in ancient Greece, Empedocles claimed that the velocity of light is finite, and this view became a commonplace in the post-medieval scientific revolution; at that time, the problem worth discussing was only how to find a good way to measure the velocity.

Today, we have to work on the presupposition that even veridical seeing relies on an underlying causal process that takes time. The usual view among naturalist philosophers (that visual veridical perceptions must be indirect apprehensions) has this as a solid background assumption. When we see a thing directly, we subjectively see it as being given in the moment of perceiving. From a phenomenological point of view, everything in a perception is perceived as being simultaneous; but this phenomenological truth cannot be upheld if we

1 Let me make a detour into the philosophy of time. Presentism is the view that what existed in the past and what will exist in the future do not really exist; at least not in the way that the present exist. This review is written as if presentism is true; and on this presupposition writes Searle and all perception theorists, too. However, taking into account the widespread belief in contemporary analytic metaphysics of non-presentist positions, I would like to emphasize the following: the time difference problem is a problem also for philosophers who think that all time points and time extensions in the past exist in the same way as those in the present. Assume in my example, that the person who hears the car accident simultaneously correctly remembers that three seconds earlier s/he saw the accident. If this person is both a direct realist, a non-presentist, and can reason logically, s/he must draw the absurd conclusion that one single car accident occurred at two different times.

regard the thing seen as also starting a causal process that needs time to reach the brain.

Briefly put: if veridical hearing is indirect because it needs time, so is veridical seeing; and if veridical seeing is direct, so is on Searle's analysis veridical hearing; but the view that both veridical seeing and veridical hearing is direct cannot on pain of inconsistency be adhered to. This is what I call *the time difference problem*, and to which Searle has not found a solution.

As should be clear from my presentation, when two sense modalities are involved, the problem can be stated without any causal talk, but when only one sense modality is considered, it relies on talk about non-instantaneous causality.

Since it takes some time, even if it is extremely short, for neurological information to move from the hands to the brain, from the tongue to the brain, and from the nasal cavity to the brain, there is, one might say, an "infinitesimal" time difference problem even for the sense modalities of touching, tasting, and smelling. And with respect to seeing the stars, the time difference problem becomes truly "astronomical." Suddenly, after having presented his whole theory of perception, and after having presented his answers to "some outstanding questions about perception" (ch. 5: vi), Searle says in passing (at the end of ch. 6, where he critically discusses mainstream disjunctivism):

> A good test case for anybody's theory of perception is, Can it account for the veridical perception of objects that ceased to exist millions of years ago? I now see a star through a telescope that I know ceased to exist twenty-seven million years ago. In one respect, the experience *is not veridical* because, again, all experiences are of the here and now [stated on p. 66], and it seems to me that the star is existing here and now when I know in fact it does not. All the same, I know that I am seeing that particular star. (p. 198; italics added)

What is said here is of theoretical relevance also for the everyday and the infinitesimal time difference problem. Searle ought really to say, that from his analysis of perception it follows that – strictly speaking – *no* veridical perception is *temporally* veridical. Direct veridical perception is always *perception backwards in time*, and therefore on Searle's analysis always temporally non-veridical. Either he should explicitly admit that veridicality and direct perceiving can only be veridicality and directness in relation to space, not time; or he has to claim that we really can be in direct contact with the past. That indirectly we can, is of course shown by the existence of memories; Searle regards (rightly to my mind) memories as representations (p. 45).

How can Searle overlook such an obvious problem as the time difference problem? The fact that the mainstream disjunctivists also overlook it, should in my opinion be no solace for Searle. I think his insensibility to the problem is due to his muddle-headed treatment of his own notion of *intentional causation*.

Searle distinguishes between two kinds of causality, intentional and non-intentional (physical, chemical, neurobiological, etc.). None of them are meant to conform to the "absurdly inadequate Humean conception" (p. 161); and with this anti-Humeanism I have no problem. For the purposes of understanding Searle's book and this review, one has to understand non-intentional causation as being non-Humean technological talk of causally time-consuming processes; Searle does not (and I am happy about that) make any attempts to bring in quantum-mechanical entanglements, i. e., instantaneous direct connections at a distance (even at enormous distances).

What then is *intentional causation*? Readers of the book may, I am afraid, easily get the impression that intentional causation is another kind of causal *relation* than ordinary non-intentional causation; but this is a wrong impression. Searle says that "cases of intentional causation occur when the intentional content of an intentional state functions as either cause [in actions] or effect [in perceptions] in a causal relation" (p. 43). That is, intentional causation is ordinary non-intentional causation with specific *restrictions put on the relata*. Here is a longer quotation:

> Other things equal, *whenever you consciously perceive anything, you take the cause of your perceptual experience to be its object*. [...] I am talking of course of intentional causation, that is, the cause of the specific intentional content that you have is the intentional object of the perception. (p. 109)

To repeat, perceptual intentional causation is defined as ordinary non-intentional causation where the effect-relatum is an intentional content whose cause-relatum is its condition of satisfaction. So far, so good.

From the definition of perceptual intentional causation it follows, that this relational notion in fact contains two relation concepts. Apart from the non-intentional causal relation, there is also another – and non-causal – relation between the effect-relatum and the cause-relatum, namely the relation of *satisfaction*. The intentional content that constitutes the effect-relatum is satisfied by the cause-relatum. Without really noticing it, Searle defines intentional causation by means of two relations, one that is causal and another that is non-causal.

Now, if one thinks only of the relation of satisfaction, then there is no time difference problem; a memory, for instance, needs no time in order to be satisfied, i. e., to be correct. This means, in turn, that if one does not in intentional causation keep the causal relation and the relation of satisfaction strictly apart, one can easily be misled into Searle's false belief that there is no time difference problem for intentional causation.

Here comes another quotation, which starts with the remarkable statement that causation can be normative:

> Intentional causation, like all intentionality, is normative. [...] if you have a perceptual experience, the content of the experience has to determine when it is good [satisfied] or bad [not satisfied]. (p. 132)

If Searle on every page of the book had been aware of the fact that he has built two different relation concepts into the notion of intentional causation, he would have had no reason to confuse his readers by talking about *normative causation*. It is only because the effect-relatum is an intentional content that there can be talk of normativity; the very causal *relation* in intentional causation is just as non-normative as it is in ordinary non-intentional causation.

Similarly misleading is it, when in a subheading he uses the term "intentional cause" (p. 108). It sounds as if there is some kind of intentionality in the cause-relatum of perceptions, but in Searle's notion of perceptual intentional causation, all intentionality is to be found in the effect-relatum. The unhappiest paragraph, however, I think is this:

> *Direct causation*. The presentational intentionality of the perceptual experience derives from the fact that it is *experienced as directly caused* by the conditions of satisfaction. When you see the object, you *experience* the object as causing your experience of it. (p. 61; second and third italics added)

Here and on some other occasions, rightly to my mind, Searle makes the point that when we describe ourselves as perceiving something, it makes good sense also to say that we regard the state of affairs perceived as causing our perception. From a phenomenological point of view, it is quite to the point to say, that when we perceive a chair it is the chair that is the main cause of our perception. This is true not only of veridical perceptions, but even of hallucinations and of perceptions made by brains in a vat (see pp. 157–160). Therefore, in the quotation above, he should not have spoken of *direct causation*, which to the reader invites thoughts about *direct perceptions* and *intentional causation*. The terms "direct perception" and "intentional causation" are in Searle's book extensionally equivalent; where there is a case of direct perception there is a case of intentional causation, and vice versa. But there can be direct causation in the sense of the last quotation without direct perception and intentional causation. The obvious existence of direct causation in Searle's sense, does *not* entail what is at stake, the existence of direct perception in Searle's sense. I hope all readers of the book will notice this fact.

I conclude this section with two statements. First, I think Searle believes that his conceptual construction "intentional causation" saves him from the time difference problem, but it does not. Second, I think that Searle has not realized that the time difference problem can be formulated without any talk of causation, which means that even if his notion of intentional causation was able to do

the job it is intended to do, the time difference problem would still constitute a serious problem for his direct realism.

Searle and the Fallacy of Ambiguity

Like Searle, I think that all representative, idealist, and phenomenalist theories of perception are false, and find it a pity that such theories have dominated the philosophical scene ever since the scientific revolution. In a paper in the 1990s called "Perception as the Bridge Between Nature and Life-World," I called it the Cartesian-Lockean heritage in perception theory (see my home page "Ontology"). From this our common perspective, two undertakings automatically spring forward: (i) to work out a problem-free philosophy of perception that makes sense of direct perception, and (ii) to find out why and where other philosophers of perception go wrong. In the last section, I presented Searle's bad handling of the first undertaking; in this section I will present his bad handling of the second. His presumed explanation brings in only one factor:

> [H]istorically all of the arguments against Direct Realism, or at least all those known to me, rest on the same fallacy: the fallacy of ambiguity that is manifest in the Bad Argument. (p. 80)
>
> At the most fundamental level the entire [Bad] argument rests on a pun, a simple fallacy of ambiguity, over the use of the English expressions "aware of" and "conscious of." (p. 25)

Searle disambiguates by means of the two expressions "the 'aware/conscious of' *of intentionality*" and "the 'aware/conscious of' *of constitution*" (p. 24). With the of-intentionality sense, we can lay claim to be aware/conscious of entities that exist independently of the awareness, whereas in the of-constitution sense the awareness spoken of can only refer to the very awareness itself.

I find it just as obvious as Searle does, that from a dictionary point of view ordinary language contains the ambiguity mentioned. However, I think that in everyday speech the context mostly supplies the disambiguation, and that philosophers must be free to argue that the of-intentionality sense cannot possibly have a referent.

Not always keeping the distinction in mind has, Searle claims, led many famous philosophers as well as contemporary mainstream disjunctivists to make the mistake of believing that we can *see* (have of-intentionality awareness of) our visual experiences. He maintains that we can only *have* visual experiences (be of-constitution aware of them), not *see* them. Searle seems to be of the opinion that at least perception philosophers should always use his distinction, but let us first consider non-philosophers.

Persons who stick to Searle's distinction and who have pseudohallucinations, i. e., take their hallucinations to be hallucinations, should when asked "What do you see?" answer "I am not seeing anything; I am just having a hallucination." And that's o.k. But it would be equally o.k. if a person who is pseudohallucinating a rat answers: "I see a rat." If hearing is considered, the non-Searlian way of speaking becomes even more natural. Psychically sick persons who has auditory pseudohallucinations of hearing people speaking to them, seem normally to say, as noted in passing by Searle himself (p. 163), "I hear voices"; but if they should stick to Searle's conceptual apparatus, they should say "I hear nothing."

What then about philosophers? Since ordinary language conforms to direct realism, if you always accept the distinction under discussion you will end up as (or continue to be) a direct realist. But that puts the cart before the horse. And I don't think for a moment that Descartes, Locke, and all the other famous philosophers that Searle mentions, were not aware of the ambiguity that in everyday speech surrounds the notions of being aware and being conscious. At most, they can be said to have had an unclear notion of intentionality. There are good reasons to credit, as is usually done, Franz Brentano for being the first one in modern philosophy to see clearly the peculiarities of intentional phenomena.

In his posthumously published book *L´homme*, Descartes has several drawings that vividly show how perceptions of external things, properties, and events have a distal cause in the external world, which starts a causal process that later enters the head, and there by means of some channels reaches the mind's (I quote) "principal seat in the brain." In this seat, the pineal gland, the last effect of the purely material causal process mentioned becomes the proximal cause of a mental perception. No such figures were drawn in the Middle Ages.

Assume now that Descartes et al. had by this way of thinking (which at least implicitly includes the time difference problem) become convinced that all seemingly direct perceptions have to be considered indirect perceptions, and that, therefore, representative realism is the only available option. How should they communicate this? Searle's distinction cannot be used, since it automatically brings with it direct realism. As far as I can see, they made from their own point of view a quite reasonable move. They changed the terminology so one could start to say what Searle forbids perception philosophers to say, namely that we do not just *have* visual experiences, we *see* (and only see) visual experiences; or more generally, we do not just *have* perceptual experiences, we *perceive* them.

If one is a direct realist in Searle's sense, then one should always keep perceptual experiences (intentional content) distinct from what is perceived (the intentional objects); whereas if one is a representative realist, one should always

identify what is perceived with the perceptual experiences (the intentional content). And, depending on position, then language should follow suit. Not vice versa, as Searle tries to have it.

The problem for thinkers such as Locke and Descartes was, that their new dualist theories of perception questioned the old commonsensical view of perception just as much as the Copernican revolution had questioned the geocentric world view. Copernicus claimed that it is a perceptual illusion that the sun moves over the sky. And it is not true that the only opposition came from Christian believers who said that the heliocentric view was contrary to the Bible's teachings. Many reacted by simply stating that during daytime they could *see* that the sun moves. Had they been steeped in the ordinary language philosophy of British philosophy from the 1950s and 60s, which a bit remarkably still seems to have some kind of grip on Searle, they could have said: "Dear Copernicus, realize that you are only playing another language game; nothing can be more obvious than that we say things such as 'the sun *sets*' and 'the sun *raises*'."

I happen to think that Copernicus is right on the solar system, but that Locke and Descartes (not to speak of the idealisms and phenomenalisms that came in their aftermath) are wrong on perception, but I do not think that this can be proved by mere language analysis. In the scientific revolution, everyday concepts such as "force," "work," and "energy" underwent quite a transformation when they were made part of the new physics. Nothing can show that the same fate, *pace* Searle, cannot in principle befall the ordinary concept "perception"; even though I, like Searle, think this would be a mistake.

In what way then do I – in contradistinction to Searle – think that representative realists go wrong? I have no full answer, but am happy to put forward some conjectures. First, I think they have an unclear conception of intentionality (which I regard as the small kernel of truth in Searle's presumed explanation). Second, I guess they find the time difference problem insoluble. Third, many of them seem to commit the fallacy of not seeing the forest for the trees. Some more words about the last point.

Often, when we see a thing at a distance and want to know what it is and what properties it have, we go closer in order to see it better. With respect to forests, this has the danger that one comes so close that one sees nothing but trees. The first Gestalt impression that there is a forest is lost. When doing phenomenological descriptions such a move is forbidden, but it is possible. Literally *going closer to* is then substituted by *giving more attention to* what is more salient in the perception as perception. In such a move, first, the intentional object can easily be lost in favor of the intentional content, and, second, the Gestalt impression of the intentional content can easily be lost in favor of its constituting parts. A fallacy is committed if one thinks, that the perceptual entity

from which one started is only a sum of the constituting parts at which the attention journey bottomed out; in Hume's terminology, that perceptions are mere sums of simple impressions and ideas. As pointed out by both Husserl and the Gestalt psychologists, the British empiricists are bad phenomenologists. Searle seems not to have considered this possibility.

Explaining why philosophers go wrong, can be just as hard as finding out what the philosophical truth searched for looks like.

Back to Gibson?

I am like Searle a direct realist. Unfortunately, however, as I have shown, his analysis of perception suffers from at least the time difference problem. This being so, what should direct realists do? Keep working, is my recommendation. Despite not being confronted by the time difference problem, representative realism is in general by no means better off; rather, to my mind, the contrary.

Searle relies on some specific presuppositions that I think have to be questioned if direct realism should become a less problematic position. To start with, I will briefly mention two; and then use the main part of this section to present a third – where the Gibson of the heading takes the lead.

First, in veridical seeing, the intentional content is caused by its intentional object; in non-veridical seeing it is caused by something else. On this I agree with Searle. But this agreement leaves open the question of how to regard the presumed intentional object of non-veridical seeing. There are at least two options. The intentional content can be said *either* to lack an intentional object altogether, *or* to have a fictional intentional object. Searle (as should be clear from Section 3) opts for the first alternative, but I opt for the second. I think it is possible to make philosophical sense of the notion of *fictional (intentional) object* without turning such entities into completely mind-independent entities (see "Fictions and the Spatiotemporal World – in the Light of Ingarden," *Polish Journal of Philosophy* 2/2010: 81–103). It should be noted that Searle's ontological deletion of fictions is quite non-commonsensical, despite Searle's ambition to defend common sense.

Second, Searle shares with all representative realists the view that intentional content and their corresponding intentional objects always are distinct entities. Searle claims that intentional objects can be presented, whereas representative realists claim they can only be represented, but all of them regard intentional content and object as necessarily being distinct entities. I have argued that an intentional content *sometimes* can be wholly or partly identical with its intentional object (see "Triple Disjunctivism, Naïve Realism, and Anti-Representationalism," *Metaphysica* 2/2014: 239–265).

Third, as made clear in Section 3, Descartes, Locke, and their followers did not end up in representative theories of perception just because of an inability to understand the complexities of ordinary language, but very much because the medieval views of perception had become completely outmoded and indefensible. In order to get rid of representationalism and all its curiosities – well described by Searle – perhaps also a radically new science of perception is needed. Helping, as Searle is, the notion of intentionality to flee from its imprisonment within the institutionalized phenomenological movement, is probably not enough.

As far as I can see, Searle and representative realists do not only share the view that intentional content and object are always distinct, as just pointed out, they also have in common views about empirical perception theory. Here are two quotations from Searle on this issue:

> Along with respecting the richness of phenomenology with its rich intentional content, *we also have to respect the sheer physics and physiology of the perceptual situation*. All we receive are surface irritations to the retina or stimulations to other peripheral nerve endings, "nerve hits" as Quine called them. (p. 104)

> The visual system has *nothing to go on except* the impact of light on the retina, together with such Background dispositional capacities and Network intentional states as the agent may possess. (p. 139; italics added)

This view was denied by the famous perception theorist James J. Gibson in his book *The Senses Considered as Perceptual Systems* (1966). According to him, the visual system has much more "to go on" than the impact of light seen from a physical point of view. He deliberately intended the book to revolutionize perception theory; he wanted to replace "theories of sensation-based perception" with his "theory of information-based perception" (*op. cit.* p. 266). Despite everything that has happened in perception theory since the mid-1960s, I think the book – correctly understood (see below) – is still in radical opposition to mainstream perception theory. My summary of his overarching views looks as immediately follows – for a certain reason, the summary is divided into two parts.

I: Human natural perception has as its locus the whole human body. The human body is a huge perceptual system, even though the functioning of the brain is the most crucial part of it. Our perceptual system contains a number of different but *often interacting* perceptual subsystems, and all of these subsystems are connected to a basic orienting system. Input for perception consists of stimulus information, not receptor stimuli. For instance, reflected light surrounding the perceiver contains at each point of time structures not studied by physics, which then over time can function as *stimulus information*; it is such time-extended stimulus information that interacts with the visual system (and

some others) and thereby produces visual perceptions. Moreover, normally perceiving organisms are not just first passively receiving stimulus information, and then interacting with it; they are often actively searching for new stimulus information. Perception is always also self-perception; there is a kind of ego-point even in the perceptions of non-linguistic organisms such as animals and human infants.

II: In veridical perceptions we *directly detect* information internal to the external world. Having subjective conscious sensations and obtaining direct information about the world are different processes; even though they often are co-occurring.

I think empirical perception theorists who are representative realists can try to "gibsonize" their theories to fit summary I, but they cannot possibly try to fit them to summary II; that would mean discarding their representative realism. According to modern representationalism, the world affects our perceptual system in some way or other, but most of the content in our perceptions are just our own constructions. Gibson denies this, but he does not deny that the human perceptual system *selects* certain kinds of information; to construct and to select are different kinds of activities. Also, Gibson is of course of the opinion that perceptions are different in different kinds of animals, different at different ages of an individual, and different in those who have trained and those who have not trained a certain skill. Here are two quotations from Gibson:

> The individual does not have to construct an awareness of the world from bare intensities and frequencies of energy; he has to detect the world from invariant properties in the flux of energy. (*op. cit.* p. 319)

The book starts as follows:

> It has always been assumed that the senses were channels of sensation. To consider them as systems for perception, as this book proposes to do, may sound strange. But the fact is that there are two different meanings of the verb *to sense*, first, *to detect something*, and second, *to have a sensation*. When the senses are considered as perceptual systems the first meaning of the term is being used. (*op. cit.* p. 1)

The fate of Gibson looks like this. He had earned himself quite a reputation within empirical perception studies before the book mentioned appeared, and the book was widely discussed; not only among perception researchers, but also among some philosophers. Later, the very year he died, the nowadays more well-known book *The Ecological Approach to Visual Perception* (1979) was published. Among contemporary philosophers concerned with perception, the 1966-book has fallen into complete oblivion, and the 1979-book is only sometimes

referred to in some unimportant footnotes. Searle's way of handling him needs a whole paragraph.

As the title of his book makes clear, Searle's direct-realism analysis of perception is centered round seeing. Nonetheless he does not mention the direct realist Gibson; not even the latter's 1979-book, which is about vision. My reaction after having read Searle's book was: but how is it possible that no one has told Searle about Gibson? Later, however, I discovered that he had been told. On a Youtube lecture (https://www.youtube.com/watch?v = ve0c0B47xJw) he mentions (after 7:20) Gibson as "a psychologist" who is "on the right track," and then quickly dismisses him by means of a skewed description of his views. In *Intentionality*, he treated Husserl in about the same way; mentioning him in one sentence, giving no references, and then just dismissing all Husserl's analyses of intentionality (*op. cit.* p. 65). The conclusion is sad but obvious. Searle is quite prone to use the following self-aggrandizing but intellectually reprehensible maxim: be as silent as you possibly can about famous thinkers who have views that are close to your own.

Gibson's fate in relation to empirical perception theory, cognitive science, and cognitive psychology is somewhat similar to his fate in the philosophy of perception, even though this fact is actually not easy to see. His name is here often mentioned with respect, and he has achieved quite a reputation. How come? The solution is simple. The "known" Gibson is not the original and real Gibson. This fact has recently – at last – been highlighted in the paper "The 'Textbook Gibson': The Assimilation of Dissidence" (by Alan Costall and Paul Morris, *History of Psychology* 1/2015: 1–14). According to my own small direct experience in the area, Gibson's notion of *affordance* (from the 1979-book) and his idea of *movement produced information* are well known, but they are cut loose from the theoretical framework inside which they were created. Those who want to become familiar with the whole of Gibson's theoretical universe, in particular his direct realism, have to read Gibson in original.

On Gibson's perception theory we do not – contra Searle – perceive by means of conscious perceptual experiences supported by background abilities (p. 139); we perceive by means of perceptual systems that now and then also give rise to conscious perceptual experiences. The difference can be stated thus: what for Searle is just a background ability, is for Gibson the very foreground that has to be investigated if direct perception should ever be understood.

I am sure that both philosophers of perception and perception researchers can profit from seriously considering Gibson's real theory of perception – its direct realism included. However, I am not hereby saying that I find his theoretical framework to be free from philosophical difficulties, not at all. Two such problems are quite obvious.

Gibson distinguishes in perception between (i) the environmental source (the *distal condition-or-cause*), (ii) the stimulus invariants or the stimulus information (the *proximal condition-or-cause*), and (iii) the *percepts* (*op. cit.* p. 244). This tri-partition immediately invites two questions: (a) what is the relationship between a percept and its proximal condition-or-cause?; (b) what is the relationship between a proximal condition-or-cause and the distal condition-or-cause? I take them in turn.

Gibson does not say that stimulus information *causes* a percept in the perceptual system. He says that percepts arise when a perceptual system is *attuned to* and *resonates to* stimulus information (*op. cit.* pp. 244, 267, 271, 319, 320):

> Instead of postulating that the brain constructs information from the input of a sensory nerve, we can suppose that the centers of the nervous system, including the brain, resonate to information. (*op. cit.* p. 267)

This means that what I have called the proximal condition-or-cause, had better be called only proximal condition. It causes neither resonance nor percepts unless the perceptual system it meets is of a certain kind. When philosophers are discussing macroscopic causal relations – be the relation regarded as interactive or not – they primarily use examples such as colliding billiard balls, stones that cause windows to break, the flipping of a switch that causes something to happen, and so on. But the notion of resonance brings with it quite other associations; it is so to speak orthogonal to the common philosophical examples. Gibson has, I am sure, avoided the notion of causality because it doesn't fit his kind of thinking; he needs another but related kind of notion.

Gibson takes the terms "attunement" and "resonance" from pre-quantum-mechanical electromagnetic theory. I find his choice of terms to the point, and I suspect there are more philosophically interesting things to excavate from them than the features I will highlight. I start with the term "resonance"; first mechanical resonance and then electrical.

The term presupposes the term "natural frequency." Things such as pendulums and guitar strings are such that when they are briefly hit, they continue for a while to swing with a specific frequency; this is their *natural swinging frequency*. Different kinds of pendulums and different kinds of strings have different such natural frequencies.

Resonance comes about when the input-source is not just a brief one-time event, but something that endures and varies with the same frequency as the thing's natural frequency. Also tuning-forks have a natural swinging frequency. They may be surrounded by many kinds of vibrations in the air that affects them

in various way, and nothing special happens. But if there is an enduring surrounding sound that affects them with their natural frequency, then they soon start visibly to vibrate. This exemplifies *resonance*; the tuning-fork resonates to the sound.

Even many electronic devices have a natural frequency, but then it is a current or voltage that varies with a certain frequency; they have a *natural alternating-current frequency*. Making a long complicated story short, when your radio is tuned in on some specific radio station, then there is resonance between the frequency of the electromagnetic field that the station in question is sending on, and the natural alternating-current frequency of some parts of your radio. When you change station, you do it by in some way or other make some of the parts in the radio contain another natural frequency. Even though, as is always the case today, your radio is surrounded by an immense number of electromagnetic fields, it is only one field that affects your radio in such a way that you hear the program sent; this is the field your radio is at the moment *attuned* to.

To be noted in the radio story is, that many (presumably material) electromagnetic fields are assumed to be co-located around the radio. This assumption runs counter to the view that no two material entities can be co-located, which is still taken for granted in most philosophical discussions of causality. According to physics, however, electromagnetic waves can be superposed without losing their identity, i. e., without losing the specific frequency with which they propagate.

Now I can return to Gibson. First, as Gibson construes the notion of stimulus information, many different kinds of stimulus information (affordances) can be co-located. Second, a certain kind of stimulus information (affordance) does not affect a perceptual system unless the system is attuned to it, i. e., can resonate to it. Third, resonance can by definition not be instantaneous. Fourth, just as a radio can be tuned in on electromagnetic waves with different frequencies, our perceptual system can tune in on different kinds of stimulus information. Anyone who seriously tries to understand Gibson must, at least for the time needed to apprehend his real views, abstain from bringing in the ordinary philosophical analyses of causality.

At last, what then about the relationship between a proximal and a distal Gibsonian condition? The answer is simple. It takes time for the structures that make up the distal condition to move and become the corresponding proximal condition; there is always a smaller or larger time lag between them. Therefore, even here the time difference problem makes itself seen and heard.

Help!

Allow me to make “Houston” the name of an informal collective of good philosophers, who all are convinced that there must be something quite true in direct realism. This makes it possible for me to end by expanding the famous misquotation from the crew of Apollo 13:

Houston, we have a problem – a time difference problem!

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