

Perceptual and Conceptual Content of Human Consciousness – A Perspective of the Philosophy of Mind

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ABSTRACT

The relation of the perceptual and the conceptual aspect of human mental states and process is discussed in light of some recent discussions. Several philosophical arguments for and against the conclusion that perceptual content is a non-conceptual type of representation are presented and critically assessed. The possibility of an objective criterion for resolving the issue, independent of introspective reports and intuitive conjectures, is considered.

Introduction

One of the important features of human consciousness is the tendency to reflect on its own abilities. An old question that reappears in recent discussions, involving a host of disciplines (from philosophy and psychology to neuro-science), is about the nature of perceptual experience. When by casual glance at grandma's garden, a plum tree, among many other things, springs into my visual field, what kind of experience do I have? Is it a kind of conceptual affair, say a belief expressible through some ordinary language sentence (»Oh, that plum-tree over there!«), or is it just a phenomenal event: an ele-

mentary, unverbalizable awareness of something »as such«? What is here at stake is a possibility of pure (visual or acoustic or some other) perceptual awareness – that very component of human experience that is supposed to be void of any *descriptive* content.

Several prominent authors find such possibility obvious, despite none, or very dubious, evidence in its favor. For, as it is often claimed, it may just be a fact about us adult humans that we as a price for mastering concepts and words, presumably lose the ability to enjoy the pure qualitative (phenomenal) aspect of our experiences, not an argument against the

existence of such an aspect. This is to say, it may be introspectively difficult to get to the phenomenal pearl through the conceptual shell, but certainly not disputable that there exists such a pearl in every shell, at least when *perceptual* experience is at issue. According to such a theory then, the dilemma about the *dependency or independency of the perceptual from the conceptual* is to be resolved in favor of the later.

But why should there be a dilemma in the first place? It could turn out that philosophers are here dealing with no clear-cut or with poorly grounded dichotomy, and that both answers could be correct, or both incorrect. (Indeed, even for the same reason!) Taking this possibility seriously we find it productive to reformulate the original question and ask, on what *other* grounds, apart from introspective reports and intuitive conjectures, is it plausible to presuppose something like a direct perception of a plum-tree, unmediated by and independent of higher cognitive abilities like reasoning and believing? Before answering the question one should be clear about what should count as a good answer, and why. Bearing this in mind we shall present and assess several arguments, which recur in recent discussions, in favor of each position.

Perceptual Content as Non-Conceptual Representation

Every sensation when felt has its own special subjective inner quality. An itch, visually sensing the quality of redness, feeling tickling, various kinds of pain – these are typical examples of pure sensation. Intrinsic qualities of redness or pain or tickling are called qualia. There is a special feeling of »what it is like«¹ to undergo such states. Perception is a complex state/event consisting of richly structured qualia.

There is also a special way what it is like to be in a state of perception. In cases

of conscious visual perception we are aware of a scene that appears before us – of various physical bodies with characteristic surfaces and arrangement in space: ones in front of the others, ones left or right, ones occluding the others, ones above the others, etc. According to Peacocke^{2,3}, this mentally represented arrangement of objects in the outer world forms a *perceptual scenario*. Perceptual scenario is constructed through the »filling« along three axes, which have their »origin« in the chest of the perceiver. This means that the content of every perceptive experience is constructed relative to the perceiver. The axes of the scenario are thus not to be conceived as being in the outer world. Nor the parts of the body from which the axes origin have to be presented in a sensory way. Each perception consists in filling the scenario with particular light reflectances from particular objects and their backgrounds. A *particular* scenario presents some *perceptual content*. Thus, as parts of the content of a visual perception, objects have definite shape, color and position relative to the perceiver and to other objects. In case of a veridical visual perception the content is thought to represent some state of the world, typically a portion of the immediate surrounding or the environment of the perceiver.

On the other hand, human conscious life is unthinkable without mental states such as beliefs, desires, intentions, etc. – the ones we usually refer to as *propositional* mental states or *propositional attitudes*. What we call *thoughts* are states that play crucial roles in processes such as reasoning and inferring, i.e., in propositional thinking. Belief, for example, is an attitude toward some content which is expressed by the proposition; and proposition is a quasi-linguistic or non-linguistic entity expressed by the sentence in a natural language. Proposition is the con-

tent of the sentence. Consider the following example of a belief:

»Paul believes that a plum tree blossoms in grandma's garden.«

The that-clause is followed by a sentence expressing the proposition, i.e., the content of the belief. Propositions are composed of components as sentences are composed of words. The components of propositions are *concepts*. We don't only feel and perceive the inner and the outer world but also *conceptualise* them. The proposition »A plum tree blossoms in grandma's garden« contains several concepts: »Plum tree«, »Blossom«, »Grandma's garden«. We can think about the plum tree even when we don't see it. Concepts are constituents of propositions, and propositions are parts of propositional attitudes, i.e., their content; hence, concepts figure as parts of propositional attitudes like, typically, beliefs. The same concepts serve as constituents in various propositions and propositional attitudes. On the basis of meaning of concepts, i.e., their structured interrelated networks⁴ based on their contents, and using the laws of logic, we infer from propositions and propositional attitudes to other propositions and propositional attitudes. This is aptly expressed by the phrase that concepts are »inferentially promiscuous«⁴.

For orientation and conduct in all kinds of worldly situations humans use data available from all aforementioned sources or mental faculties. They seem to differ from each other. As it is often said, perception occupies the middle ground between sensations and propositional attitudes. With sensations it shares qualitative aspects or qualia, with propositional attitudes the notion of content.

When we see something it seems that we always see it *as* something – a common place of modern philosophy of perception (both phenomenological and analytic). For example, we see a tennis ball –

round, small, soft, yellow portion of space – *as a tennis ball*; but in order to see it as such we have to *learn* that it is a tennis ball: we have to master the *concept* of a tennis ball. So it seems that, *in addition* to the qualitative characteristics and arrangements, the concept of a tennis ball is a necessary constituent of this particular perception, that is if we take it *as* a perception of a tennis ball.

However, according to one view of perception, this isn't so. We do not have to have a concept of a tennis ball in order to see »it«. Firstly, *filling* our internal *scenario* with the light reflectance from the surface of the tennis ball, along with the fillings of the background, do not require, as it seems, possession or use of any concepts. Specific characteristics of the surface of the tennis ball, due to reflectance, will be placed within the axes of the scenario relative to the background. The content of this particular perceptual experience is thus constituted before and independent of any conceptualisation. We do not have to *perceive* a tennis ball *as* a tennis ball; we can experience just the perceptual *content* – of an object (»something out there«) possessing some intrinsic color, shape and extension. The purpose of the object could remain completely unknown to us, or its origin, or any other specification falling under a descriptive category. When we learn what it is to be a tennis ball, including its necessary conceptual ramifications – that tennis is a game played so-and-so, that the color of the ball is yellow, that it is made of rubber, in short, when we grasp a *concept* of the tennis ball – still there should be no difference in our perceptual content of *seeing* the tennis ball when we *see* it again. Our mind now only links the *pre-existing* representational content of the perceptual experience with the newly acquired concept. Hence, the concept is not to be conceived as a part of the representational content of visual perception.

Another powerful argument⁴ makes use of the well-known Müller-Lyer illusion⁵ to illustrate the independence of perception from its conceptual superstructure. The drawing consists of two lines, one exactly above the other. The arrows at both ends of one of the lines stretch outside the line, the arrows of the other stretch inside the line. The line with arrows stretching outside looks longer than the other line though they are objectively of the same length. We *learn* that the lines are of the same length, we measure them using measure concepts – we *conceptually* become aware that they are the same. Despite all this, we still see them as if they were different. If concepts are part of perception then, as the argument goes, after changing the concepts by learning, we should see the scene differently. But we do not. Therefore, it doesn't seem possible to revise the perceptual content by use of acquired concepts pertaining to that content⁴.

Moreover, if seeing is believing, then, after we come to know that lines are equally long, and still see them as different, we should say that we have a mental state with a contradictory content of the form *P* and *not-P*. Surely, we cannot possess such contradictory mental states. Therefore, a much more plausible explanation is at hand: concepts and beliefs should not figure *as constituents* of perception. Therefore, the perceptual content is non-conceptual. Other arguments to the same effect can be found in the literature^{2-4,6-9}.

Consequently, objects that are perceptually represented could be represented conceptually as well. This means, furthermore, that human mind possesses two general ways of representing objects. Both of these *forms* of representations are independent of each other: constituents of the one are not constituents of the other. Nevertheless, they stand in a specific relation that is established by explicit learning.

The point is that the same content could be presented in two different ways: one consists in structured qualitative aspects and the other in concepts forming a proposition. Perception of a plum tree in blossom has a specific aspectual shape (a »what-it-is-like« feature), whereby an occurrent propositional attitude *per se* does not seem to have such a qualitative property; the subject is simply conscious of the propositional content¹⁰.

Some Criticisms

Let us invoke an important distinction introduced by Dretske¹¹ in his account of conscious experience: the one between »consciousness of things« and »consciousness of facts«. According to Dretske, one can be conscious of a plum tree in grandma's garden and at the same time not be conscious *that* it is a plum tree in grandma's garden. This is because the following principle applies:

S is conscious of x
S is conscious that x is F.

For some people this is a fairly obvious principle, for Dretske indeed »self-evident« (sic!). He admits in passing though »to have discovered, over the years, that it does not strike everyone that way«. (One of the authors of this article would serve as a case in point.) Trying to discard possible doubt about the validity of the principle Dretske introduces some further distinctions¹¹ (pp. 266–268) under the assumption that it is the »failure to appreciate or apply« these distinctions which is responsible for the scepticism. We will not discuss his »clarifying distinctions«, since they, on our opinion; add nothing substantial to the plausibility of the principle. Of his scarce positive remarks¹¹ (pp. 268–269) in support of it, there is one worth considering.

According to Dretske¹¹ (p. 268–269), »it seems most implausible to suppose in-

fants and animals (presumably conscious of things) have concepts of the rudimentary sort« like *being a physical object* or *being a thing*. He concludes that » if the concept one must have to be aware of something is a concept that applies to everything one can be aware of, what is the point of insisting that one must have it to be aware?« But if not concepts, what are these mental items then? They surely have some role in structuring experience, and it is far from clear that this role amounts to nothing more than a kind of phenomenal structuring. So it is unclear what minimal conditions must a descriptive content satisfy to count as a concept or a propositional item? And even more important, one has to wonder why shouldn't the difference be a matter of kind and not a matter of degree, starting from some rudimentary level of propositionality instantiated by »concepts« like *a thing* or *physical object*. These are hardly novel issues in philosophy, much less resolved ones (consider for instance Frege's suggestion about *Protogedanken*, a kind of primitive propositional attitudes attributable to higher animals¹²).

In the sequel of his article, however, Dretske uses the above-cited principle (and a host of examples) to support a further – for some authors not less controversial – claim, viz. that one can be conscious of something without being conscious that he is conscious of it. In fact, this turns out to be Dretske's primary concern: a critique of the monitoring or spotlight theory of consciousness, according to which an ability for introspective awareness, either as phenomenal or as propositional awareness, is neither necessary nor sufficient condition for consciousness:

»An experience of *x* is conscious, not because one is aware of the experience, or aware that one is having it, but because, being a certain sort of representation, it makes one aware of the

properties (of x) and objects (x itself) of which it is a (sensory) representation. My visual experience of a barn is conscious, not because I am introspectively aware of it (or introspectively aware that I am having it) but because it (when brought about in the right way) makes me aware of the barn. It enables me to perceive the barn. (p. 280)¹¹«

There is hardly anything to object to Dretske's conjecture. Indeed, introspective awareness could turn out to be just one aspect of human consciousness, not an indispensable one, as it were. But then, on what grounds can Dretske justify his principle of independence of the pure phenomenal awareness from awareness of facts? If the principle seems obvious to some, and dubious to others, what other source of evidence is there to count as relevant for deciding the matter, apart from the compromised and superfluous ability of self-monitoring? Dretske leaves us with no answer.

Daniel Dennett is a prominent sceptic with regard to seeing/believing dilemma. He ends one of his articles¹³ with the following conclusion (p. 172): »the idea that we can identify *perceptual* – as opposed to *conceptual* – states by an evaluation of their contents turns out to be an illusion.« Note that he does not claim that there is no such thing as pure perceptual experience, or that the two are so intertwined that the pure perceptual part (»the given«) cannot be discriminated from the conceptual part (»the taken«). His point is rather that the issue cannot be resolved by looking at the *contents* of the experience, in an introspective manner.

Unlike Dretske, whose examples are examples of not seeing (in the sense of factual seeing) something that is there, Dennett chooses examples that illustrate cases of seeing (in the sense of factual seeing), *something that isn't there*. Al-

though almost all examples are borrowed from Ramachandran¹⁴, I will here cite Dennett's original illustration of his own point. He describes himself marvelling at the Bellotto's painting of a landscape in bright sunlight. Among various details the painting shows a distant bridge with individually discernible human figures walking across it:

»I remember having had a sense that the artist must have executed these delicate miniature figures with the aid of the magnifying glass. When I leaned close to the painting to examine the brushwork, I was astonished to find that all the little people were merely artfully positioned single blobs and daubs of paint – not a hand or foot or had or hat or shoulder to be discerned.¹³«

This is a particularly convincing example of the problem with the representation of the content of experience. The brain represented the blobs of paint as persons, and, as is metaphorically said, has »filled in« the details. But how did this »filling in« exactly happen? It is far from obvious that the brain neurally represented all the »non-existing« but »seen« details of the figures, like (presumably) in cases of genuine pictorial representation. It seems rather that some kind of inferential processes took place, i.e., a kind of conceptualisation. Besides, the example shows how the criterion of the richness of content of representation makes little sense as a criterion of distinction between the phenomenal and the propositional.

Towards an Objective Criterion?

It is not unfair to conclude that both here exposed positions are equally successful in handling problems of perceptual and conceptual content and the relation between them. Is there a way to resolve the matter?

Consider a useful and important distinction made by Block^{15,16}. He distinguishes *access-consciousness* from *phenomenal-consciousness*. Phenomenal consciousness is simply *experience* – we referred to this modality of consciousness as sensations and perception. Access consciousness is a kind of direct control – some representation is access-conscious if it is poised for direct control of reasoning, reporting and action. Block further discusses¹⁶ claims of Crick and Koch^{17,18}, and Pollen¹⁹, concerning the neural correlates of consciousness. Visual area V1 of the brain is the first major way station that processes visual signals. The area is not connected to the frontal cortex, at least does not »project« to the frontal cortex directly. Crick's and Koch's hypothesis¹⁷ is that frontal parts of the cortex are involved in direct control of reasoning and decision-making. They assume furthermore that the necessary condition for some area to be a neural correlate of consciousness is that it directly projects to frontal areas. From this hypothesis, from the premise that part of the function of visual consciousness is exactly to pass on visual information for the purpose of direct control of reasoning and decision-making, together with the empirical discovery that V1 is not projected to frontal cortex, Crick and Koch conclude¹⁷ that V1 *is not* a part of neural correlate of consciousness. Block shows clearly how they, in fact, conflate phenomenal and access consciousness. From the fact that V1 is not directly connected to frontal parts of the cortex there is no reason to reach a decisive conclusion that V1 is not a neural correlate of consciousness. V1 could subserve phenomenal consciousness or, what amounts to the same thing, could be a neural correlate of something else: namely of a particular *perceptual scenario*. Of course, if Crick's and Koch's findings and hypotheses are interpreted as access consciousness, then, assuming that only

frontal areas subserve direct control of reasoning and decision-making for behaviour, it is apparent that V1, not being connected to them, is not a part of neural correlate of access consciousness.

However, Block thinks that there are two other indications why we could accept that V1 is not a neural correlate of consciousness – one is that V1 does not exhibit the Land effect⁵ about color constancy which *is* exhibited in our phenomenal consciousness. Briefly, the Land effect consists in perceiving the same physical color as qualitatively different, depending on the background. However, in reaching this conclusion the fact that V1 is not connected to the frontal lobes does not play any role!

On the other hand, Crick and Koch themselves speculate about the neuronal circuits involving only the thalamus and the lower layers below the surface of about two millimetre thick visual cortex in the occipital lobe being neuronal correlates of visual consciousness. Frontal lobes and connections to them are not proposed as parts of neural correlates of phenomenal consciousness. It seems therefore that frontal lobes are *not* required for perception to be conscious.

What can be learned from these arguments? If evidence could be produced that V1, or the circuits between thalamus and visual layers in occipital lobe, present the real neural correlates of consciousness (in the Block's sense of phenomenal consciousness), this would then considerably strengthen the thesis that perception is non-conceptual. For in that case V1, or the circuits between thalamus and visual layers in occipital lobe, would count as the neural correlate of a visual perceptual scenario. As we have emphasized, filling the scenario, constructing the perceptual content, may not require having concepts as parts.

It would be worth testing several hypotheses concerning the activity of different parts of the brain supposedly responsible for the phenomenal, on the one, and the conceptual aspect of access consciousness, on the other side. This would present an objective test of validity of the conjecture about the independence of the two aspects. Moreover, it would be a test of the instrumental value of this, introspectively grounded, distinction itself.

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**PERCEPTIVNI I POJMOVNI SADRŽAJ LJUDSKE SVIJESTI:
PERSPEKTIVA FILOZOFIJE UMA**

S A Ž E T A K

U članku se raspravlja o pitanju odnosa perceptivnog i konceptualnog (pojmovnog) aspekta mentalnih stanja i procesa. Izloženi su i kritički sagledani neki noviji argumenti za i protiv pretpostavke da je perceptivni sadržaj nekonceptualna vrsta reprezentacije. Razmotreni su i izgledi za pronalaženje objektivnog kriterija za rješenje spora, koji ne bi bio utemeljen na introspektivnim argumentima ili intuiciji.