

# Gestalt theory

## Toward a Scientific Understanding of Consciousness

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In this poster I argue that although phenomenal consciousness will continue to be something to marvel at, that fact should not prevent us from trying to extend our knowledge of phenomenal conscious experience. The argument is based on some of the epistemological/ontological assumptions behind Gestalt theory. My conviction is that these assumptions, together with the Gestalt theory, make a promising framework for a better understanding of conscious phenomena and the relation between body and mind.<sup>1</sup>

### The Integrationistic Intuition

The focus here will be on *the integrationistic* intuitions in the contemporary debates. Güven Güzeldere has expressed this intuition, which is a belief in the necessity of bridging the gap between two common conceptions of consciousness, i.e., gulf created between causal characterizations of mental states and phenomenal characterizations. The outcome of these divergent perspectives, Güzeldere argues, is a misleading *segregationist intuition* saying that "if the characterization of consciousness is causal then it has to be *essentially* nonphenomenal, and if it is phenomenal, then it is *essentially* noncausal"<sup>2</sup>. The *integrationistic* intuition says on the other hand "that what consciousness does, *qua* consciousness, cannot be characterized in the absence of how consciousness seems, but more importantly, that how consciousness seems cannot be conceptualized in the absence of what consciousness does"<sup>3</sup>.

### The Segregation of Content and Consciousness

As philosophy of mind has been developed during the last century, two central dimensions of mind have been conceptualized - phenomenal consciousness and intentionality. One could say that the very core of "the cognitive revolution" is the idea that these two dimensions can be studied separately. Intentionality, once looked upon as the very hallmark of phenomenal consciousness (and the way to distinguish minds from matter), became a property of physical states (of a certain complexity) standing in some kind of causal relation to some other states of the world. In that way not only brainstates but a large group of other physical states could be treated as mental representations with semantic content. Putting all details of the actual events in the intentional neurophysical states in the dark, deep inside black boxes of the flowcharts, the computational theory of mind could be born in an air of abstraction. Thus, making minds to computational abstractions, a somewhat odd marriage between the anti-reductive stance of functionalism and the materialism of the brain sciences could take place. The advantages were obvious, scientists in the post-behavioristic era could finally deal

with *minds* without any need to deal with the metaphysical evils of conscious experience.

## The Unwanted Consequence - "as-if intentionality"

The matrimonial problems arise the very moment the abstract symbols in the computational language of thought should get some concretion in the brain tissue. Where are we to find the tokens which the theories were postulating? How do brains actually represent and compute information? A mixture of worrying questions and intuitions are put forward: Isn't there something special about the way brains represent the world, isn't there qualia involved? Mental representation can't be just any causal relation, it must be some very specific one. There is this certain "glow" in the human tissue, accessible from the first person perspective, and these phenomena have to be properties of the specific material events and their causal powers. There does not seem to be any convincing criteria for differentiating real *intrinsic* intentionality, in physical states corresponding to *real* mental states, from "intentional" states in a sloppy metaphorical use of the term. "As-if intentionality" designated on physical states, occupying a causal role similar enough to human intentional states is not good enough.<sup>4</sup> The "multiple realizability thesis" seems in this respect incomprehensible - matters do matter so to speak (at least if we want some interesting details about human representations).

## Reapproaching consciousness

The segregationist move was once seen as a revolutionary step forward, but now it seems as if the need to understand phenomenal conscious phenomena is tearing the materialistic brain sciences apart from the computational theory of mind. But, breaking up is never easy, and the discussions during the last decade have been characterized by the attempts to save the marriage with arguments: either by trying to save the segregationistic move by emphasizing the distinction (access-consciousness/phenomenal consciousness; easy and hard problems etc.), or to pinpoint the tragic trait in the materialistic love affair with conscious experience - the materialists can never ever meet their lover, wherever they look they still cannot find the slightest trace of qualia (the conceivability of zombies).

However, the insight that something is left out in the present framework is well established and the segregationist intuition is increasingly seen as a dead end. But the integrationist intuition has its own air of mystery, and any integrationist has a tremendous work of clarification to do. Well aware of this Güven Güzeldere ends his essay:

What seems the most promising direction in reapproaching consciousness and pursuing its deep-rooted problems in the present era involves rethinking epistemology and conceptual schemes (as opposed to a priori postulation of a new ontology) to yield a cross-fertilization of the first-person and third person perspectives, which would allow theorizing about how causal efficacy figures in *how consciousness feels*, and how phenomenal quality relates to what *consciousness does*.<sup>5</sup>

I believe that the first step on the path Güzeldere is pointing out has already been taken. My suggestion will not be to rethink but rather to a return to an approach offered by the Gestalt theory. That will give us, I believe, a better understanding of what kind of insight we can expect to reach when our knowledge about mind increases. And it is to this approach that the rest of the argument is leaning.

## Conscious Experience as a Forbidden Mystical Realm

Are we ever going to solve the problem of conscious experience? Many people give a negative

answer to this, the big question of cognitive science. Philosophers look deep into the mystery and cannot find any way to understand how conscious experience arises from matter. The kind of understanding these philosophers are looking for is impossible, in analogy with trying to be in two places at the same time. The essence of the "what it is like"-tangle is: You cannot with your own perceptual system observe someone else's perceptual system and then *in your own experience* expect to find this someone else's point of view.

Consciousness (or you could as well say "the world as it shows itself") in this "what it is like"-sense is indeed a mystery, but it is the segregationistic framework that makes it such a terrifying problem for a scientific understanding of consciousness. The problem will dissolve the very moment cognitive science abandons the behavioristic heritage and its unmotivated fear for conscious phenomena.

In the very beginning of his essay Güzeldere asks the key question: is the explanatory gap just epistemic or is there a ontological lesson to be drawn from it?<sup>6</sup> The question is central because the segregationist fear of conscious experience seems to nourish an assumption that natural-scientific theories/models have strong ontological consequences, in that they point out all entities which exist, or at least all entities which are accessible to us. The perplexing effect arises: conscious experience becomes defined as non-existent, or as that mysterious "something" which science cannot reach, while, for example, electrons which we actually cannot experience directly are supposed to have a most robust existence. *So, our knowledge of the physical wipes out our basic epistemical level: phenomenal consciousness.*

I willingly admit that the epistemic asymmetry between third and first person perspectives could be said to reveal something about ontology, but this asymmetry is receiving attention out of proportions in the attempts both to justify and to reject segregationistic moves. There is of course a huge difference between on one hand observing a perceptual/cognitive system and on the other hand to be such a system, but the same can be said about the difference between observing a fridge defrosting and to be such a system<sup>7</sup>. The ontological lesson to be drawn from this is that there are some properties and events which are hidden from some perspectives. This is a disturbing fact but I believe an emphasis on ontology creates the current all too common view that a scientific third person perspective is leaving out a *mysterious* hidden realm. This assumption makes the integrationist project dead even before it started.

## The Primacy of Observation

The first step on an integrationistic road *is* to realize that the mystery is a result of a tendency to make ontology out of basically methodological problems in cognitive science - I don't know what its like to be a fridge (there is a lot we don't know). But I do know what its like to be me, and I do know how to conceptualize observations and in the end create knowledge. The question is whether we can learn more about how the human perceptual system represents the environment. We really don't have to make the existential/ontological claim with such an emphasis. Science does not bring existence to the world, it just brings more details to our knowledge of the world. Neither does science empty the world of conscious experience, and this is my point: The first person perspective is not more "hidden" than the third. After all, the difference between the first person and the third person perspectives is not necessarily that the former is saturated with "qualia", while the latter is not. My firm conviction is that if there is a ontological lesson to be drawn from the explanatory gap we had better keep them in the background when doing science.

## The Reduction of Consciousness

Why then is *conscious experience* supposed to be such a threat to science? The reason seems to be fairly obvious. Defined as it is as the kernel of subjectivity, the standard technique of reductive explanations seems to be out of the question. Searle puts it the following way:

Part of the point of the reductions was to carve off the subjective experiences and exclude them from the definition of the real phenomena, which are now defined in terms of those features that interest us most. But where the phenomena that interest us most are the subjective experiences themselves, there is no way to carve anything off. <sup>8</sup>

Searle then concludes that consciousness is excluded from the ordinary pattern of reduction<sup>9</sup>. This is in a way the only conclusion to draw within the segregationistic framework, where conscious experience is defined as some kind of mysterious *raw feel*, but I believe this conclusion ends up in an ultimately absurd subjectivism. Conscious experience is not just *raw feel* but structured perceptual fields and as such our basic epistemical level. *Science originates in the observations of phenomena in a first person perspective and then develops by the use of systematic techniques to predict and manipulate the phenomena under observation.* The objective apparatus of science recasts subjectivity into a shared field of intersubjectivity. One essential moment in this enterprise is a redefinition of the ordinary language terms used in the primary observations. Water (sometimes experienced as cool and refreshing) becomes associated with the scientific models to predict the behavior of this liquid in various situations and is renamed and redefined as H<sub>2</sub>O. *The new definition as a part of the scientific apparatus is better situated to answer the questions that interest us* (e.g.. why our bodies need water, why water freezes, what to do about "acid rain" and so on). Water is said to be "reduced", it is said to be nothing but the molecules in the scientist's explanatory models, and hence the impression that the new concept of water has nothing to do with any specific observer.

On the other hand, if the very *experience* of refreshing cool water accessible only to ourselves is what interests us the most (e.g.. the way we get acquainted with water) the intersubjective reformulation is supposed to be out of the question. But why? The shift of interest is a shift of causal junction, from events outside the organism to events inside - that is to events in the nervous system.

In the segregationistic framework, the demands on a scientific explanation of conscious phenomena become ridiculously high. The explanation which is out of the question is the one which tries to locate other peoples *qualia* in my experience of that person's brain tissue (or in computational models of the causal connections in this tissue). That is not what ordinary reductive explanations are about. I would rather say a reductive explanation has to observe and conceptualize a phenomenon, use intersubjective techniques for control, and manipulate the phenomenon. When a scientist first encounters water there is no such demand to explain the "waterness" in water, only a demand for ways of predicting the kind of observations we will make under various situations. When a person suffering from an illness is complaining about pains his demands on the physician is not an explanation of how his experiences arise from matter, but ways to diagnose, predict and manipulate the feeling of pain and in the end to make it disappear. What about a pain in a phantom limb?

If a future scientist finds that a certain activity pattern among c-fibres co-varies with sensations of the phantom pain in a systematic way, then the concept of phantom pain could certainly be said to be "reduced" in exactly the same sense as the ordinary concept of water. We would have established an identity between pain and the activity pattern of c-fibres. This

reduction of "pain" in this ordinary sense does not mean that phenomenal experience somehow disappears to a forbidden zone of consciousness. It is rather the opposite - science has extended our knowledge about conscious phenomena. An explanation of conscious experience does not demand the localization of qualia in (perceptions of) matter, but theories with power to control, predict and manipulate conscious phenomena. I cannot see a reason why we should not allow "consciousness" (e.g. a lot more articulated concepts describing a wide range of perceptual phenomena) to undergo the traditional strategy of reductive explanations, keeping in mind that this does not make the phenomenal lifeworld disappear.

## Gestalt Theory

This more moderate demand on the requirements for an understanding of phenomenal consciousness and its relation to matter is the point of departure for Gestalt theory. If you want to explain any phenomena, you should first of all acknowledge their existence. There is in principle no difference if the phenomena are the observation of freezing of water, after-images or *gestalt qualities*. The essence of the methodological procedures of the Gestalt theory could be summarized in the following way: make observations of a perceptual phenomenon, find more and more intersubjectively describable details about the phenomenon (develop descriptive concepts), develop physiological hypotheses about the neural representation relating to the phenomenon and then finally find experimental methods to falsify or improve the hypotheses - and by these means create an overall picture of how neural states represent the world, and how this way of representing is differentiated from as-if intentionality.<sup>10</sup>

The Gestalt psychologists (and their German psychological/philosophical tradition) identified and explored a long list of interesting perceptual phenomena. Just to mention a few: gestalt qualities, the grouping tendencies or "Gestalt laws", perceptual frameworks, perceptual constancies and a wide range of other data in the field of memory and cognition. It is often said that the Gestalt theory has been falsified and proven wrong. The claim is exaggerated; most of the Gestalt psychologists' physiological hypotheses are so general that you have to deny the natural laws of physics to regard them as wrong. On the other hand, *some* of their hypothesis have proven wrong, but this does not falsify the observations and the methodological approach, just the particular hypothesis.

The Gestalt theory as a systematic approach was not falsified - just ahead of its time. Today, with a whole new battery of techniques available to put the approach to work, Gestalt theory offers a metatheoretical framework making phenomenal consciousness well within reach of cognitive science.

## On What There is and What it is Like.

Finally, this line of argument shall not be taken as a refusal to deal with questions about what there is (ontology) and what it is like to be anyone, but it is a denial of the idea that these questions can be decided apriori.

## Footnotes

<sup>1</sup> This poster is an outline of some ideas for a chapter in my forthcoming dissertation. My main focus in the thesis will be on the philosophical and historical context of Gestalt psychology, e.g. the theoretical significance of the so called "Gestalt qualities"; the problem of identity; the contribution of Gestalt theory to the part-whole debates, and further to discuss the consequences to be drawn - the refutation of "the transcendental ego" and the constancy hypothesis. Later chapters, in which the ideas of this poster will be a part, are going to deal with the basic concepts in the perceptual and cognitive theory of Gestalt

Psychology, finally leading up to "the binding problem" and some ideas for its solution.

<sup>2</sup> G. Güzeldere, "Introduction, The many Faces of Consciousness: A Field Guide" in *The Nature of Conscious experience, Philosophical Debates*, Ned Block, Owen Flanagan, Güven Güzeldere (eds.) Cambridge, Massachusetts London England 1997, p.11. Güzeldere summarized the two conceptions with the two mottos: "*consciousness is as consciousness does* contra *consciousness is as consciousness seems*".

<sup>3</sup> Güzeldere 1997, p.11.

<sup>4</sup> For the distinction between *intrinsic* and *as-if intentionality* see J. R. Searle, "Breaking the Hold: Silicon Brains, Conscious Robots, and Other Minds" in Block, Flanagan, Güzeldere (eds.)1997, pp. 493-502.

<sup>5</sup> Güzeldere 1997, p.45.

<sup>6</sup> Güzeldere 1997, p.4.

<sup>7</sup> Illustration borrowed from J. Heil, *Philosophy of Mind. A Contemporary Introduction*, London New York 1998.

<sup>8</sup> R. J. Searle, "Reductionism and the Irreducibility of Consciousness" in Block, Flanagan, Güzeldere (eds.) 1997, p. 456.

<sup>9</sup> Searle 1997, p. 457.

<sup>10</sup> This strategy was first formulated by Wertheimer 1912 in his well known examination of the phi-phenomenon. M. Wertheimer, "Experimentelle Studien über das Sehen von Bewegung" in *Zeitschrift für Psychologie* 61, pp. 161-265.

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