

Methodologies in the current study of mind

Miroslav Sedláček¹

¹ Department of Germanic Studies, the Faculty of Art and Philosophy, the Charles University in Prague, nám. J. Palacha 2, Praha 1, miroslav.sedlacek@yahoo.ie

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Abstrakt The objective of the following paper is to make aware of various possible approaches to the enquiry about the principles of human mind. The main purpose is to overcome the common presumption that the only field where the mind is studied is psychology. Cognitive science is really the leading enterprise attracting a lot of attention and is currently given. However, there is a variety of alternative views about what the mind is like. Basic theses of phenomenology, philosophy of mind, analytic philosophy, structuralism, psychoanalysis and discourse analysis are presented.

Klíčová slova methodology, science, philosophy, mind, phenomenology

1. NATURAL SCIENTIFIC METHODOLOGY IN THE STUDY OF MIND: FEATURES OF THE METHODOLOGY

Abstraction from context: decontextualisation. The approach of cognitive science has a strong feature of decontextualization that is referred to as “monologism” [1], according to which “contexts are secondary complications” [1], whereby “the underlying assumption is that unique or dynamic contexts are not essential for the understanding of specific thoughts or language systems.” [1]. On this methodological account, it is possible to look into the mysteries of the mind without appealing to the specific context in which it is situated, and “to study sentences in abstraction from the settings in which they have occurred or might occur” [2].

Abstraction from common sense psychology. The orientation of cognitive science toward natural sciences means also the rejection to study the mind on the empirical basis, i.e. that concepts of ordinary language (“common – sense concepts”) are not used as the material from which the investigation unfolds, so that „it is not the business of the sciences to express the content of common – sense concepts” [3]. The vocabulary of language of ordinary usage (every – day – language) is deliberately left out, since “common-sense notions are vague and imprecise and cover a wide range” [4]. For that reason “one can’t keep to the informal concept” [4].

Postulating of hypothetical constructs. The pessimistic attitude toward empirical orientation of scientific enquiry leads to the view that “just as in the natural sciences, if we want to study some topic carefully we are like to need notions refined for this purpose. Thus in serious study of language and mind one has to carve out some more coherent domain of inquiry.” [4]. The consequence of such a view is the formulation of new concepts that are defined on a par

with theoretical notions such as atom in physics. Postulation of formal structures or hypothetical theoretical constructs for the explanation of some facts was common practice in generative linguistics for a long time. Notions, such as “universal grammar”, “transformational grammar”, “language faculty”, “deep structure”, “surface structure”, “merge”, “semantic form”. In cognitive psychology have been used theoretical constructs, such as “computation”, “computational system”, “Baysian inference” to name but a few. But all of these are only theoretical constructs that serve as guides, and that should not be assigned the status of objectivity. As Chomsky puts it, „you can talk about the computational level - in theory, though we don't know how, you can talk about the neurophysiological level, nobody knows how.” [5].

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1.1 Conception of mind associated with the natural scientific methodology in cognitive science

According to cognitive science, the mind is computational. This concept is based on the following theses: “the brain is a physical system; it functions as a computer; it is designed to generate behavior that is appropriate to our environmental circumstances; our modern skulls house a stone age mind; consciousness is just the tip of the iceberg; most of what goes on in our mind is hidden from us; as a result, our conscious experience can mislead us into thinking that our brain is simpler than it really is.” [6].

2. PHENOMENOLOGICAL METHOD IN THE STUDY OF MIND: EPOCHE

The first attempt to study the mind phenomenologically comes from Edmund Husserl. The method that Husserl proposed deals with „one’s ordinary judgments about the relation between experience and the world” that Husserl characterized as “natural attitude”(„natürliche Einstellung“). It is the attitude generally known as „naive realism“, which consists in the conviction that not only the

world is independent of mind or cognition but that things generally are the way they appear“ [7]. The phenomenological method “epoche” that Husserl proposes consists in “the attempt to disable or set out of play that broad assumption of realism. We try to pretend that we simply don't know whether the chair is real, or the photon, or the number. Nonetheless we have the experience just the same. Without appealing to the external object, then, we are left only with the experience itself, which as we describe it is saying something about the structure of our own consciousness.” [8]

Through this method, Husserl “claimed to be able to study the content of the mind prior to any empirical science” [7]. Such a domain is a certain “set of sedimented background preunderstandings or assumptions” [7] that is universal in the sense that is shared by all human subjects. The background generates human interpretation of reality – “the organism’s phenomenology – how the organism experiences the world” [9].

Another example of making use of subjective experience within the research in the science of mind is the project by Dan Lloyd [10] offering an innovative theory of consciousness, drawing on the phenomenology of Edmund Husserl and supported by brain-imaging, presented in the form of a detective story, where he deliberately uses his own imagination – a fiction in this case – to explore the findings of cognitive science.

2.1 The combination of natural science and phenomenological method

Phenomenological method is included in cognitive science. Husserl’s method of “epoche” and his understanding of the mind as a set of background preunderstandings or assumptions generating experience (life-world) has been taken over by later phenomenologists who suggested to combine phenomenology with natural scientific method. This method was suggested first by Varela, Thompson & Rosch in their seminal work [7]: “we propose a constructive task to enlarge the horizon of cognitive science to include the broader panorama of human, lived experience”. Their arguments for such a proposal it to overcome “the rift between science and experience in our society” [7] since “pluralistic society must embrace both science and the actuality of human experience” [7]. This project - called “neurophenomenology” - implies that first person experience has cognitive potential, i.e. that self - awareness can contribute to the discovery of the structure of lived experience or “life-world”.

Phenomenological method only complements cognitive science: the project of “neurophenomenology” is challenged. This combination of methodology is based on a different concept of the mind. Whereas the authors advocating for neurophenomenology believe that lived experience is not a projection of computational processing happening in the brain, “according to Ray Jackendoff’s theory the organisation of conscious awareness is determined by the computational mind” [7]. Suggested methodology is natural science, because “the cognitive part of neuroscience includes characterizing the functional or computational character of mental activity” [9]. The consequence of the computational theory of human experience is the task to develop a computational theory by cognitive science – i.e. “the enterprise to figure out how the neural and computational structures support consciousness” [9] – in the first place, but with the help of experiential evidence. “The necessity of complementing cognitive science with a mindful approach to human experience” [7] is thus different approach from “epoche”, since cognitive scientist is not supposed to suspend his belief, as Husserl insisted.

The combination of natural science with “heterophenomenological” method in the study of mind. Alternative to the phenomenology is the methodology proposed by the philosopher Daniel C. Dennett who calls his own methodology “intentional stance”. Since Dennett “declares that there simply are no qualia at all” [14] so that he believes that there is no “phenomenal consciousness” or “life – world” in the sense that Husserl and his followers incl. Thompson understand, he suggests to interpret “primary interpreted data as subject’s expressed beliefs about their experiences, and not experiences themselves” [12]. Intentional stance or “heterophenomenology” as Dennett calls it, is supposed to supply material to cognitive science. The inclusion of subjective experience in cognitive science is for such reasons challenged.

3. APRIORI REASONING (INTUITION) AS THE METHODOLOGY IN THE STUDY OF MIND: PHENOMENOLOGY AND PHILOSOPHY OF MIND

Introduction. Intuition or speculation is a methodological tool of philosophers speculating about the nature of mind and language. They may or may not base their claims on findings of cognitive science, but even though they do use scientific knowledge about mind, they speculate further beyond scientific account. Others don’t trust science at all. From the methodological point of view, reasoning – called “intuition” – consists of introspection that is rational or logical, but that remains deliberately speculative, because it’s not based on prior scientific data. The product of such reasoning – a theory - is usually presented as objective truth, which is according to opponents controversial, since such theories are based only on subjective opinion.

Phenomenology. Edmund Husserl applied besides “epoche” – suspense of belief – also philosophical introspection to “discern the essential structures” [7] - the background of all human experience, the “lived world” (Lebenswelt). He called this procedure of reasoning “intuition of essences” (Wesensschau). Based on this logical procedure he “tried to reduce experience to these essential structures and then show how our human world (die Lebenswelt) was generated from them” [7].

3.1 Philosophy of mind

Mind is independent of the brain. Some philosophers of mind think in the same line as Husserl when they presuppose the life-world and the background that generates it, but they are not phenomenologists who would suspend their beliefs about the world like Husserl to reduce experience to essences, but instead just intuitively claim that “conscious mental properties as basic constituents of reality are ontologically independent from any other physical properties” [13]. Such views are called “property dualism” or some versions of it “panpsychism”, and their proponents are among others the philosophers Thomas Nagel, David Chalmers and Andrew Jackson. Their argument for the thesis that consciousness is not based on anything physical (like brain) is the zombie hypothesis: “zombie is an entity that has a brain, but that lacks consciousness. If such an entity is logically or conceptually possible, then mental states must be distinct from the brain” [12]

Mental substance („soul“/„Seele“). The assumption of dualism going back to Descartes that “asserts the existence of both physical and non-physical substances. Such theory that entails the existence of non-physical minds or selves as entities in which consciousness inheres” [13] is currently being held among few still living philosophers, such as Richard Swinburne and James Foster. Such

philosophers believe contrary to science that “it is metaphysically possible that each of us could acquire a new brain or continue to exist without a brain; and so we are essentially souls.” [14]. This model of mind is referred to in the literature as “substance dualism”.

Language of Thought. Another proposal based on speculative intuition comes from the philosopher and cognitive scientist Jerry Fodor who suggested that human brain develops an inner language – a sort of logical syntax. This proposal implies that “one can’t learn a language unless one already knows one – a language of thought that is known but not learned” [15] and that is based on the logical syntax of language of thought whereby „we grasp the world the way we do precisely because that is the way the world is” [16]. In other words, what Fodor is suggesting is that nobody has to learn language and that everybody thinks objectively, and all of that prior to any experience – any contact with the world, since perception is taken to be independent of the thought: the mind is construed as modular (“modularity thesis”).

Denial of the existence of mind. The suggestion that there is no such thing as the mind has been put forward by Patricia S. Churchland [17] and similarly by Stephen Stich’s early work [18]. This proposal is based on the assumption that there is nothing above the neurobiology of the brain: no mind, no Self. On this account, all aspects of first-person experience are strictly only firings of neurons. This model of consciousness is termed „eliminativism“ or “eliminativist materialism”. These authors argue that “our self-understanding is simply false” and “that we might come to refer to brain states instead of experiences in every day discourse” [7]

4. LOGICAL ANALYSIS OF LANGUAGE AS A METHODOLOGY OF THE STUDY OF MIND

Introduction. Another method used for the enquiry about the mind is logical analysis of language - “analytical philosophy” in jargon. It’s usually defined as “the analysis of thought by means of the analysis of language” [19]. The origins of analytical philosophy lie in the work of Gottlob Frege and Bertrand Russell.

Bertrand Russell: knowledge by acquaintance and descriptions Russell’s conclusions based on his logical analysis of language are that human knowledge is of three basic types. “The ability to think of an object in the world without having a name (word) for it” [20] is the “knowledge by acquaintance”: concepts, such as „that table“ or “this cat”. The ability to think of an object that is not around, but for which there is a name: concepts, such as “Pegasus” or “unicorns”. The ability to think of an object in the absence of the object in the environment and in the absence of the name for the object is the “knowledge by description”. In this case we speak of such an object by “describing the property that only that object and no other object has” [20] – so called “sufficient and necessary conditions”.

Ludwig Wittgenstein: knowledge by language. According to Wittgenstein’s famous logical analysis of language [21] ultimate constituents of the world are not sense data pace Russell, but facts. The fact is the existence of a state of affairs. But if a state of affairs stops existing (because it changes), then the fact is no longer a fact. It’s only a language. So the ultimate constituent of the world is language that creates a structure – but what is it the ultimate structure of we can’t know, since language doesn’t answer that question. Implying that language necessarily structures logical thinking., but in that he describes as facts that consist of complexes – the ultimate constituents are linguistic – implying that the mind has to be determined by language, since language is learned. This aspect of language has been revived by postmodern scholars.

Moritz Schlick: knowledge by protocol. In the first half of the 20th century, logical empiricists or positivists argued for the pure empirical foundation of the cognition. The ultimate basis of human mind is immediate experience, i.e. pure sense data, so called “protocol”. All knowledge is then only inferred from such protocols. On this account, all propositions (thoughts) are objective, i.e. verifiable by something immediately tied to experience by senses. It’s assumed that psychological factors can be separated or suppressed during the formation of objective propositions – an assumption that contradicts the findings of current cognitive science.

5. STRUCTURAL ANALYSIS OF LANGUAGE AS THE METHODOLOGY OF STUDY OF MIND

Analysis of language of myths in anthropology by Claude Levi-Strauss that was supposed to “provide a useful model for investigation of other social and cultural systems.” [22], and structural analysis of language of literature by Roman Jakobson, Roland Barthes and A. Greimas have revealed universal aspects of thought: e.g. Levi-Strauss argued that “kinship systems just like phonemic systems are built by the mind on the level of unconscious thought” [23], and A. Greimas came to the conclusion that: “every literary text can be reduced to elementary structure of signification that can be represented as semiotic square.” [24]. According to Greimas, relations, such as opposition “life” versus “death” and identity based on negation, such as “death” = “non-life” reveal universal structure of not only literary text but also of the mind.

The concept of human mind that such considerations imply is “Kantian rather than a Freudian unconscious, a combinative, categorising unconscious; a categorising system unconnected with a thinking subject, homologous with nature.” [25]. Such concept implies that human thought is organized by semantic universals that have the form of fixed categories (e.g. opposition, such as good versus evil or negation), from which all other concepts are inferred, and that neither the universal building blocks nor concepts that are derived from them are objective – that they are not abstract ideas – i.e. that they are not representations of objective reality.

6. PSYCHOANALYSIS AS A METHOD OF THE STUDY OF MIND

Psychoanalytic model of the mind is radically different from the concept put forward by Edmund Husserl. So instead of the argument of the phenomenological tradition till present that: “I am a subject the moment I can to myself: “no matter what acts govern my acts, perceptions and thoughts, nobody can take from me what I am feeling or seeing now.” [26], Lacan’s claim is that subject is “decentred” in the sense that “I am deprived of even the most intimate subjective experience – the way things really seem to me – since I can never consciously experience or assume it.” [26]. Lacan’s account is thus closer to the concept of mind in cognitive science, since subjective experience is only a “fundamental phantasy” that constitutes the core of our being. But for cognitive science, such a phantasy is the product of objective unconscious cognitive mechanisms – computational processing, whereas for Lacan, the unconscious – with which the fantasy (subjective experience) is connected – is “the most radical dimension of human existence” [26], whereby - contrary to cognitive science – “the unconscious is structured as a language: the unconscious talks and thinks.” [26]

Contrary to Freud, Lacan takes a philosophical approach toward psychoanalysis, so that “psychoanalysis is not a theory of treating mental disturbances but a theory and practice that confronts

individuals with the most radical dimension of human existence” [26]. The task of the psychoanalyst is to analyse the formal (linguistic structure) of the meaning that the patient transfers onto the analyst. For Lacan, psychoanalysis is a method of reading texts.

7. ANALYSIS OF DISCOURSE AS A METHODOLOGY

Discourse analysis is “a vital method of understanding a key aspect of social life, namely what people say and how they say it” [27]. Forms of discourse are taken to be tightly connected to the content, so an analysis of discourse reveals not only linguistic facts but also facts about how particular community or culture thinks. Analysis of discourse is being conducted also by using large corpora: „Large corpus data manifest not massive disorder but multiple modes of order, some determined not on the plane of the system, and others on the plane of the actual discourse“ [28], whereby analysis of discourse offers an insight into the condition of society: „the ‘order of discourse’ offers an ‘orderly’ view of both ‘order’ and ‘disorder’ within the society itself in terms of necessary changes” [28]. In this respect analysis of discourse can be used to the analysis of thought of particular culture.

Specific concepts are analysed within their appearance and usage in discourse in such a way, that such concepts are looked up in a linguistic corpus that represents such a discourse. E.g. the linguist Robert de Bougrande compiled his own corpus of terms to determine the terms in his own research on language and discourse, and using his own corpus analysed concepts, such as “complexity”, “determinism” and “stability” in terms of possible attitudes of society towards such concepts. He was trying to establish whether the attitude to such concepts is either negative or positive. Based on the findings the conclusion has been made as to the overall attitude of the community. RDB has discovered this way e.g. that “technologizing the human environment seemed to be taken for granted as a source of complexity and at times admired” [28].

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