

## THINKING OF EXPERIENCE, EXPERIENCING THINKING

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### ABSTRACT

The article briefly describes the relatively young field of cognitive science dedicated to the research of lived human experience – the so-called phenomenological inquiry (or first-person research). It enumerates the reasons for the renewed interest in the study of experience and outlines the field's relation to the rest of cognitive science. With the help of an example (phenomenology of thinking), the article attempts to illustrate the importance of systematic study of experience and addresses some open questions emerging from such an enterprise.

### KEY WORDS

phenomenological inquiry, first-person perspective, experience, thoughts

### CLASSIFICATION

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## INTRODUCTION

Tremendous progress of cognitive neuroscience has recently virtually overshadowed the endeavours of other disciplines engaging in the research of cognition. Many researchers in the field feel that a path has been opened to understanding the functioning of the brain in a way similar to understanding the ‘functioning’ of the physical world. The descriptions of the dynamics, biochemistry and functionality of neural networks are becoming more and more accurate and through that, it does appear that claims that soon reason will be able to explain the functioning of reason are not too far fetched. Of course we have not yet reached that stage. Cognitive neuroscientists still have much to learn using the trial-and-error principle. Nevertheless, a theory of mind in the sense of naturalistic theories explaining the functioning of inanimate nature appears to be possible.

However, a look into the history of attempts to explain the human mind quickly curbs such enthusiasm: a couple of disciplines have cherished similar high hopes during the past century and before. The enthusiasm of today’s neuroscientists is similar to the conviction of artificial intelligence experts some twenty years ago about their abilities to model the human mind. And – in even more distant past – we can observe similar unfulfilled hopes in the fields of psychology, cybernetics and, of course, philosophy.

Searle [1; pp.30-31] describes this sequence of unsuccessful attempts to explain the mind: “... The theory in question has left out the mind; it has left out some essential features of the mind, such as ‘consciousness’ or ‘qualia’ or semantic content...[Thus] if we were to think of the philosophy of mind as a single individual we would say of that person that he is compulsive neurotic, and his neurosis takes the form of repeating the same pattern of behaviour over and over.”

A number of cognitive scientists agree with Searle’s diagnosis (perhaps most notably Varela [2]): by leaving direct human experience – i.e. the most intimate and omni-present part of cognition – out of the equation, we necessarily fail to gain a full-fledged understanding of mind. For some philosophers this realization shows that there will never be a complete theory of mind, because “the very fact of subjectivity, which we were trying to observe, makes such an observation impossible” [1; p.97]. Some try to include experience in their models, and some (to be mentioned later) argue that the human experience should be taken as irreducible ground by which other layers of cognition are layered.

There is another, more practical reason why subjective experience research became the latest addition to cognitive science. A big part of neuroscience (and also Artificial Intelligence (AI)) cannot go on without understanding what they are studying. The task of cognitive neuroscience is supposed to be understanding the neural correlates of human experience. The question is how it can attain that goal without understanding experience in the first place? One could even argue that neuroscience’s (and AI’s and psychology’s etc.) failure to provide a full-fledged theory of mind is the consequence of their taking the understanding of human experience as self-evident: for a long time nobody (within the scope of cognitive science) bothered to doubt everyday intuitions about the structure of our experiential world. Similarly, the isomorphic relation between events in the brain and experience (or between behaviour and experience) was rarely questioned, at least outside pure philosophic speculations.

However, such assumptions have been shattered in recent decades by a new (or renewed) research field dealing with the systematic inquiry of lived human experience. The following text aims at describing this research field and its relation to the rest of cognitive science. With

the help of an example, it also attempts to open some of the hard questions that emerge from such an enterprise.

## **EXPLORING EXPERIENCE**

Contemporary empirical research of experience is, as mentioned above, a fairly young discipline, even though it relates to several older scientific experiments. The idea that inquiring into the direct experiential world is (at least) as important as the study of physical reality is by no means a new invention. Its most elaborate theoretical exposition can be found in the work of Edmund Husserl, but even before that, in the beginning of XVIII. century, there existed a research programme based on the primary role of human experience developed by Johan Wolfgang Goethe [3]. At the beginning of XX. century there was a strong surge of new approaches aimed at the research of the subjective. Beside Husserl, German introspection flourished at the time, as well as the field of the so-called Graz school of experimental phenomenology, which emerged just a few years later [4].

Each of the above-mentioned schools soon met with virtually insurmountable problems. Consequently, none of them had any major influence on the research of human psyche in the framework of cognitive science in the 70s. But during that period (also under the influence of the progress of neuroscience, as stated in the introduction), the urgent need to understand experience emerged, as can be seen in several areas. Thus a wide array of diverse research approaches has been developed recently, directed at the lived human experience [5]. In the last 30 years a considerable number of methods and perspectives of how to study our experiential world have been proposed: everything from strictly quantitative methods measuring chiefly the frequency of the occurrence of a given type of experience, to qualitative dialogical methods which endeavour to preserve the inner wealth of participants' experiential worlds.

The common denominator in all of these approaches is the insistence on studying experience as 'it shows itself', without indulging in metaphysical or theoretical speculation. Researchers in this area emphasize the importance of trusting the participants' experiential reports. Inquiries focus more on how participants experience in different situations and less on why it is so – theoretical grounding, judgements and explanations are 'bracketed' in favour of observing lived experience. All of these basic research assumptions have been formulated by the philosopher and mathematician Edmund Husserl [6], who realised the simple truth that primary human experience is, in fact, all we have at our disposition – there is no way to escape it. His motto 'Back to things themselves' is an appeal symbolically marking the birth of one of the most powerful philosophical currents of XX. century: phenomenology. Husserl himself was well learned in the procedures of natural sciences, but he found it unacceptable that direct, lived experience be neglected on account of the fixation on theoretical explanations. He formulated phenomenology as a rigorous science which should systematically study experience, i.e. things (or rather phenomena) as they show themselves to us (instead of searching for hidden truths and background mechanisms explored by other sciences).

Since most of the basic concepts pertaining to the research area dealing with the empirical inquiry into experience come from Husserl, this field was given the name phenomenological inquiry. As the research in question is in effect empirical, several purist philosophers of phenomenological provenience have been opposing this designation. Some of them have suggested the term phenomenography, which however never caught on. Another name for this research project is also first-person research, a designation bringing another set of problems: while the issue in question is indeed the first-person perspective (as opposed to the third-person perspective dealing with behaviour and neurophysiology), it is also true that it is

dealt with in the manner of third-person research – one does not study one's own experience, but rather the experience of the participants of the research.

Be that as it may, in the rest of the article I intend to stick to the term phenomenological inquiry, while sometimes using also the term first-person research.

## **WHAT EXACTLY IS THAT WHICH WE ARE STUDYING?**

If science is supposed to be the study of the properties of the world which we live in, it should be clear that a new scientific discipline is formed once we become aware of a new, hitherto unexplored area of the world (or once we gain the tools to research an area which we were up to that moment unable to consider in a scientific way). In this section I would like to discuss which part of the world - or rather which level of reality – should be dealt with in phenomenological inquiry. Which area does it actually study and what kind of data does it operate with?

## **EXPERIENCE**

The area of our inquiry is experience, i.e. everything that happens in the scope of individual consciousness. Husserl [6] in fact did not differentiate between the two - that which we today commonly designate as experience was referred to by him as consciousness. Indeed, such an equation actually makes sense, since differentiating between consciousness and experience does appear to be somewhat artificial: experience is basically the entire gestalt of being conscious.

The question which part of reality is dealt with in phenomenological inquiry is impossible to answer in the same way as in the case of other sciences. Phenomenological inquiry is concerned with a part of the world which is the most intimate and directly accessible one, the world as 'it shows itself' to us. Physical world, human behaviour, social world ... all of these are merely different systematisations of the experiential world - and all of them are less existentially direct. It was because of this fact that Husserl believed that the science of experience should be the basic science, rising above and over all other sciences due to its fundamental nature. At this level, there is no difference between that which shows itself to us and our perception. It is impossible to separate between the screen onto which experience is to be projected and the projection itself. Even the very notion of a reality which is 'out there', being projected into our consciousness (i.e. the world as studied by most of the sciences), has no place at this level of direct access. Experience is the entirety of existence in a given moment.

Perhaps our area of research was best highlighted by the philosopher Nagel in his article entitled 'What Is it Like to Be a Bat?' [7]. It is extremely hard to answer the question what is experience by reducing it to other psychological notions; it cannot be described as this and that. When we speak about the gestalt of experiencing, we are talking about what it is like to be that human being (in the chosen moment).

As stated by Varela and Shear: "In spite of the variety of terminology being used, a consensus seems to have emerged that Thomas Nagel's expression 'what it is like to be' succeeds in capturing well what is at stake. Clearly 'what it is like to be' a bat or a human being refers to how things (everything) looks when being a bat or a human being. In other words this is just another way of talking about what philosophers have called phenomenality since the Presocratics. A phenomenon, in the most original sense of the word, is an appearance and therefore something relational. It is what something is for something else; it is a being for by opposition to a being in itself independently of its apprehension by another entity" [8; p.3].

## **HOW TO OBSERVE EXPERIENCE?**

Let us now ask the question what we can find out about experience and how can we find out anything about it at all. In considering the question how, we are immediately faced with the principle problem of phenomenological inquiry: the so-called excavation error, i.e. the fact that the act of observing essentially changes that which is observed. Searle offers the following description of this inconvenience: “The very fact of subjectivity, which we were trying to observe, makes such an observation impossible. Why? Because where conscious subjectivity is concerned, there is no distinction between the observed and the thing observed ... Any introspection I have of my own conscious state is itself that conscious state” [1; p.97].

Our intuitive opinion (shared by several important phenomenologists) is that human experience is intentional – it is always aimed at something. Thus when we embark on the observation of experience, this means that experience is actually observing itself. This is hard to fathom – it appears as though we would need to take a step back all the time in order to find a new position from which to observe. A position, that is, which is not a part of the observed.

At this point, Zen masters would disagree with us. According to them, unintentional observation, or rather, presence in which the field of awareness is being aware of its own entirety – and of the fact that it is aware of itself, is indeed viable. Who knows, perhaps such a state is in fact the ultimate method of phenomenological inquiry? It is definitely a subject worth elaborating upon, and even more worth trying out in practice. But that is not the aim of this article. Our goal is to present third-person phenomenological research methods, i.e. the kind that explores (also) experiential landscapes of others, and first and foremost one which yields results accessible to others.

## **FROM EXPERIENCE TO EXPERIENTIAL REPORTS (PHENOMENAL DATA)**

Setting aside the possibility of direct observation of experience in the form of mindfulness, one must recognize that any perception of one’s own experience is in essence the perception of a memory of one’s experience.

The memory of experience is itself a new kind of experience, of course. But the crucial difference here is that memory is but a part of the entire domain of consciousness, thus allowing the observer to occupy a position outside of the area in question. Maintaining this position means that one is able to observe the memory of experience from a distance and can thus try to describe it. It is only at this point that scientific research becomes possible: descriptions of memories of experience are the closest we can come to describing what it is like to be.

All things considered, our position in the field of phenomenological research is not so much different from the position of other scientific areas. Physics, for example, is similarly unable to explore physical reality directly – at the quantum level one must accept observing merely the effects of the processes observed. In a way it could be said that this also involves the observation of memories, or rather traces, of past events.

The only data available to phenomenological research is thus the so-called phenomenal data - descriptions of memories of past experience.

## **THE CONSTRUCTIVE NATURE OF RETROSPECTION**

The processes involved in making memories are of course highly problematic and unreliable. The fact that phenomenal data is actually a description of memories of past experience has resulted in the formation of two distinct schools of phenomenological inquiry, separated by their attitude towards retrospection: one of them tries to reduce retrospection to the minimum,

while the other one strives to train the interviewer in the dialogical art of ‘cleansing’ constructions brought about by memory.

This school of phenomenological inquiry’s first and foremost representatives are Pierre Vermersch and Claire Petitmengin. They are trying to perfect the art of interviewing to the level where it would become possible to approach even the memories which are no longer fresh, and get rid of the constructions which had piled up in the mean time. The method of interviewing used by the adherents of this school is called the explicative interview [9]. There are well documented cases of people who were able to remember incredible details after such seances (some of which can sometimes be verified).

The other school of phenomenological research uses a different approach: it tries to reduce the time passing between an experience and its report and thus increase the reliability of memory. This method goes by the name of experience sampling. It is based on collecting random samples of experiential moments throughout the day. The method has one qualitative derivation (Descriptive Experience Sampling), elaborated by Russell Hurlburt [10], and also a quantitative one, in which subjects are being asked with the help of questionnaires about the presence of selected types of experience at randomly selected moments. The latter is frequently used in contemporary cognitive-neurophysiological research.

Both of these approaches are not incompatible, but rather complementary. Approaches such as DES are especially useful in ‘drawing out’ a map of everyday experience, while dialogical methods can delve deeper into its selected (pre-chosen) aspects. The methods developed from the starting-points of these basic approaches have since become quite sophisticated, thus objections like “Phenomenology has failed to find a single settled method that everyone could agree upon” [11; p.44], which have been stated by cognitive philosophers as recently as two decades ago, no longer apply.

## **NATURAL ATTITUDE**

The (im)precision of memory is thus not the biggest problem of phenomenological inquiry. A much larger difficulty lies in the fact that our conscious attention is very poorly suited for observing experience: in our awareness we are oriented almost completely towards the content of experience at the expense of its structure. The so-called natural attitude of our experience is perhaps the most basic feature of our existence: it is almost impossible for us not to regulate, categorize, explain, make sense of and relate experiences into a whole. We are used to directing all our attention to the results of this process, so much so that there is no more of it left for the process itself.

That is why training is such an important part of the research of human experience. Many phenomenological researchers have noted that humans are very poorly acquainted with their direct experience (e.g. [8]), meaning that we are not good at ‘bracketing’ our natural attitude. In other words, we are not used to remembering our experience in a given moment, but rather merely its content.

In the following chapter I will present an example of experience research which will clearly demonstrate how little we are aware of the how? of our experiential world due to our overwhelming orientation towards the what? But before embarking on that, let me enumerate some of the basic methodological guidelines of experience research which aim to bypass our natural attitude and allow us to perceive phenomena as they show themselves to us. Most of these guidelines stem from Husserl’s instructions for phenomenological reduction [6]:

- focusing on phenomena (things as they show themselves to us in our experience) and bracketing. Husserl suggests ‘leaving the usual assumptions about things behind’

(respectively, ‘bracketing’ them) and phenomenological reduction – the reduction of the observed onto phenomena as the only thing which is given in experience and thus certain,

- the rule: ‘Do not explain, but describe!’ It is the single most important methodological guideline of phenomenological inquiry. Simple as it might appear at first sight, its realization is a complex matter demanding a great deal of reflection and skill. Only once we try to merely describe experience in practice without classifying it, giving it theoretical grounds, explaining it etc., we become aware of the depth of our need to explain and how difficult it is to avoid it. Ihde [4] talks about the problems of differentiating between actual describable experience which is manifested solely in its directness, and non-experiential elements such as assumptions and prejudice. Explanation as understood here is any kind of theory, idea, notion or construction which is aimed at exposing the background of phenomena,
- abstinence from beliefs or rather from evaluating the ‘reality’ of observed phenomena. Without intersubjective verification (typical of the scientific method), it is impossible to separate between ‘illusion’ and ‘reality’. From the point of view of direct primary experience such a distinction is just one of the ways in which to organize the experiential world (and as such of no bigger value than other possible distinctions). That is why Husserl recommends that even this – seemingly so basic a judgement – be bracketed in order to observe the field of experience as it shows itself, without judging it.

These guidelines are shared by all the approaches in the research of experience (especially by the qualitative, dialogical ones). But since Husserl was of the opinion that following only the afore-mentioned instructions one might get “lost in phenomena”, he added a fourth guideline, which recommends the search for structure and constant properties of the observed phenomena. Husserl believed that this way it would be possible to bring forth a ‘transcendental’ science – i.e. a system surpassing the unique, ephemeral experience, which could extract its essential (transcendental) elements. This is the part where – in my opinion – one has to be very cautious. The following chapter will demonstrate the danger of presupposing a common experiential field shared by all.

## **THINKING – AN EXAMPLE OF AN UNEXPLORED LAND OF EXPERIENCE**

In this section, the problems and possibilities of phenomenological research will be demonstrated with the help of an example. The principle aim of this is to emphasize two points mentioned in the theoretical introduction:

- human beings focus almost exclusively on the content of experience, consequently we are very poorly acquainted with its structure,
- many of the seemingly self-evident assumptions about experience are plainly and simply wrong.

For this purpose I have selected the phenomenon of thinking – probably one of the most common modalities of human experience.

### **WHAT IS THINKING?**

We are intimately acquainted with it and yet (or perhaps, because of it), the phenomenon seems to be surprisingly poorly defined. In everyday conversation we use the term for a wide variety of experiences: from remembering something to trying to solve a problem. The situation is no more exact even within the scientific framework – modern cognitive neuroscience, for example, is quite broadminded in the use of the term thinking: one can find it in connection with abstract problem solving [12], argumentation [13], bringing forth memories of past events, associative processes, sense-making and meaning [14], appearance of intrusive mental images [15], etc.

The recent ‘discovery’ of default mode networks has focused scientific attention on the area of mind wandering [16], and via that, rekindled some questions about thinking. To be able to extract some research value from this concept, it is (again) becoming necessary to narrow down its definition. In this respect, most authors agree that thinking is some kind of a symbolical mental process, associated with processing of content – be it connected to a concrete object or event, or to an abstract idea.

## HOW DO WE THINK?

Furthermore, despite the age-old philosophical argument about the relationship between thoughts and language, almost everybody today agrees that thinking is somehow connected to language. Most authors do not doubt the common intuition that thinking is actually inner talking, most prominently George H. Mead [17], who stated that thought is nothing but internalised conversation. This view has not changed much during the last century. Bernard Baars, a prominent cognitive scientist, confirms this: “Human beings talk to themselves every moment of the waking day. Most readers of this sentence are doing it now. It becomes a little clearer with difficult-to-say words, like ‘infundibulum’ or ‘methylparabine’. In fact, we talk to ourselves during dreams, and there is even evidence for inner speech during deep sleep, the most unconscious state we normally encounter. Overt speech takes up perhaps a tenth of the waking day; but inner speech goes on all the time” [18; p.106].

Leaning on this assumption, Matthew Botvinick from Princeton University summarises ‘the long-term goal’ of thought-related cognitive neuroscientific research as follows: “to translate [that] brain-activity pattern into the words that likely describe the original mental ‘subject matter’ ”[19].

It is interesting though, that Baars’ and Botvinick’s views are not universally accepted. John McWhorter, a prominent linguist, is convinced that we are not so much talking, but reading in our mind: “When we utter a word, we cannot help but mentally see an image of its written version. In our heads, what we have said is that sequence of written symbols. When we say ‘dog,’ a little picture of that word flashes through our minds, Sesame Street-style. Imagine saying ‘dog’ and only thinking of a canine, but not thinking of the written word. If you’re reading this book, it follows that you couldn’t pull this off even at gunpoint” [20; p.3].

So, is thinking inner talking or is it inner reading? It is really hard to assume that one’s own way of experiencing thinking might not be universal. This is probably one of the reasons why nobody thought of empirically testing the assumptions in the area of thoughts and thinking for quite a long time. The young field of phenomenological inquiry is attempting to bracket intuitions concerning our mind’s workings and instead gather empirical data about lived human experience. Let’s see what it has to say about thinking.

## PHENOMENOLOGY OF THINKING

Russell Hurlburt, one of the prominent figures in contemporary empirical phenomenology, comments on above-mentioned descriptions: “I’m pretty sure that Baars and McWhorter are entirely mistaken. Maybe Baars talks to himself all the time, and maybe McWhorter himself sees images of written words while he talks (there’s reason to be sceptical of both claims), but I’ve investigated such things as carefully as I know how and become convinced that most people (let alone all people) do not do such things” [21].

Hurlburt is mostly known for his invention of afore-mentioned descriptive experience sampling method – one of the oldest (by now it has been around for more than 35 years) and most effective methods of collecting phenomenal data. In recent years, research of experience is gaining momentum. Many new methods are being developed, all having one thing in



common: asking not what it is about, but how a particular modality (thought, feeling, sensory experience...) is experienced.

Execution of the afore-mentioned phenomenological methodological guidelines, i.e. phenomenological reduction (bracketing the content or the what of experience), is probably most difficult to do in the area of thinking: content is the very essence of thoughts. The predilection of our everyday experience (a natural attitude) makes us pay all our attention to the content of thoughts and none to its structure. We can easily remember what we were thinking, on the other hand, how this was experienced is rarely observed. Therefore, beside a well designed research method, a lot of exercise, determination and mindfulness is needed to explore experience, and especially the how of thinking.

The results are pretty surprising, though. In the area of thinking, Hurlburt et al. showed that the experiential modality of inner speech occurs in 26 % of all samples, with “large individual differences: some subjects never experienced inner speech; other subjects experienced inner speech in as many as 75 % of their samples. The median percentage across subjects was 20 %” [21].

Inner speech has been shown to be a robust phenomenon, but far from being the only way of how people think: “... some people talk to themselves a lot, some never, some occasionally” [21]. Furthermore, it seems that – behind the interface of well coordinated external communication – there is a vast variety of experiences, all called ‘thinking’. Hurlburt reports on different other modalities of thought, one of which is, for example, the so called unsymbolised thinking, which is quite interesting in light of old philosophical debates about the possibility of such a way of thinking.

Many other modalities of thinking have been detected. I intend to dedicate the rest of this article to one of them: visual thinking.

## **VISUAL THINKING**

This modality of experience is most clearly and convincingly reported in the works of Temple Grandin – publicist, academic and well known spokeswoman for people with the autistic spectrum disorder. At some point in her struggle to co-exist and communicate in ‘normal’ social surrounding, she discovered to her surprise that a great deal of her troubles originates in the fact, that – in order to be able to communicate – she has to constantly translate her way of experiencing the world. She found out that this seems to be a common problem of many people with autistic disorders. Following this observation, she started an inquiry that resulted in the articulation of three different specialized autistic/Asperger cognitive types: “(i) visual thinkers such as I who are often poor at algebra, (ii) pattern thinkers such as Daniel Tammet who excel in math and music but may have problems with reading or writing composition, and (iii) verbal specialists who are good at talking and writing but they lack visual skills” [22].

In her reports, Grandin offers a unique insight into the experience of a full-fledged visual thinker. She does not experience thinking as a linear (or consequential) affair. And she certainly does not think by talking to herself. Most of her experience consists of browsing through vivid recollections of pictures of (actual) things.

The simplest example is her report on deciphering words, describing generalized entities: “If you say the word ‘butterfly’, the first picture I see is butterflies in my childhood backyard. The next image is metal decorative butterflies that people decorate the outside of their houses with and the third image is some butterflies I painted on a piece of plywood when I was in graduate school. Then my mind gets off the subject and I see a butterfly cut of chicken that was served at a fancy restaurant approximately 3 days ago.” [22].

It seems that she is not utterly unfamiliar with inner speech. But it only plays a role of a narrator, without having any power of abstraction or leading the argumentative process. Her experience handles what we know as logic and abstraction “with high-speed handling of hundreds of ‘graphics’ files”.

Grandin reports about her struggle to grasp the idea of abstraction: at first, whenever the certain non-actual thing was mentioned, a series of all pictures pertaining to it rushed through her experience. It took her decades to invent a way of dealing with this flood of actual memories. Today, she normally just chooses a couple of the last (or most prominent) images, as described in the ‘butterfly’ example, using it as a sort of representation of the whole class.

Still, she is unfamiliar with the experience of concept as something containing information about all the members. Her way of forming a concept is to sort the many specific photo-realistic pictures she has stored in her memory into categories. To form concepts “I sort pictures into categories similar to computer files. To form the concept of orange, I see many different orange objects, such as oranges, pumpkins, orange juice and marmalade” [22].

“When I was a child, I categorized dogs from cats by sorting the animals by size. All the dogs in our neighbourhood were large until our neighbours got a Dachshund. I remember looking at the small dog and trying to figure out why she was not a cat. I had to find a visual feature that she shared with big dogs. I had to create a new category in my mind to differentiate. All dogs, no matter how big or small, have the same nose shape. My concept is sensory based, not word based. Other ways of sensory-based categorization would be sound (barking or meowing) or smell.” [22].

## **THE ENCOUNTER OF FIRST- AND THIRD-PERSON PERSPECTIVES**

It is not the aim of this article to explore visual thinking in further detail. I hope this short overview managed to point at the vast and mostly unexplored territory of human experience. It appears that some of the assumptions about human experience that most cognitive scientists (as well as philosophers) have been taking for granted, will have to be re-evaluated. One of them being the supposition that the smoothly coordinated dance of human communication means that the actors are sharing not only behaviour but also experiences.

Instead with the conclusion, let me finish with some interesting questions that arise from this observation.

From the afore-mentioned example, it seems quite likely that there are different types of thinkers. All the phenomenological research on the subject shows that individual experiences of the phenomenon called thinking might differ dramatically and profoundly.

Assuming that there are certain cognitive processes that are experienced differently (i.e. are not phenomenologically intersubjective) the question arises: do they therefore produce different patterns of neuronal activities? In other words: do they have different physiological correlates?

Let us assume that we would be able to identify a number of groups of subjects that experience the same cognitive phenomenon distinctly different. Would they – performing the same cognitive task – exhibit different patterns of neuronal activation? If that assumption is correct, then we would have to change our ways of research in cognitive neuroscience. This would mean, for example, that experiments would have to start with a phenomenological scan of the involved subjects, determining whether the person in question is i.e. a type A or a type B thinker ...

But the real epistemological problem would arise in the alternative case – if people with clearly different experiences would produce same patterns of neuronal activations. Such results would endanger our very basic assumption: that neural dynamics correlates to experience.

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## MIŠLJENJE O ISKUSTVU, ISKUSTVO MIŠLJENJA

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### SAŽETAK

Rad ukratko opisuje relativno mladu disciplinu kognitivne znanosti posvećene istraživanju iskustva živih ljudi – fenomenološki uvid (ili istraživanje prvog lica). Pobrojani su razlozi obnovljenog interesa za proučavanje iskustva i naznačene relacije te discipline s ostalom kognitivnom znanosti. Služeći se primjerom (fenomenologija mišljenja), članak nastoji ilustrirati značenje sustavnog proučavanja iskustva i postaviti neka pitanja koja izvire iz takvog poduhvata.

### KLJUČNE RIJEČI

fenomenološki uvid, perspektiva prvog lica, iskustvo, misli