



Neuroscientist who does not feel pain: Subjective ontology and the perspective anamorphosis of consciousness

Original scientific article

Andrija Jurić

University of Novi Sad, Faculty of Philosophy, Serbia
nusolog@gmail.com

Would the neuroscientist who does not feel pain know *what* he is studying? In this paper, the author analyzes the subjective ontology of conscious mental states and its origin – the subject's first-person perspective. The ontology of the mental is irreducibly first-person ontology. In the thought experiment with neuroscientist Peter, it will be shown that a comprehensive science of consciousness requires a combined approach, as the phenomena of neuroscience are internally defined. The asymmetry between first-person and third-person perspectives regarding mental states will be strongly emphasized. The third part of the paper will offer a perspectival approach to the hard problem of consciousness. In conclusion, a truly objective science of subjectivity, a genuine science of consciousness, would have to engage scientifically with the subject's egocentric first-person perspective.

Key words:

subjective ontology, first-person perspective, phenomenal quality, mental states, neuroscience

Neuronaučnik koji ne oseća bol: Subjektivna ontologija i perspektivna anamorfoza svesti

Andrija Jurić

Univerzitet u Novom Sadu, Filozofski fakultet, Srbija
nusolog@gmail.com

Da li bi neuronaučnik koji ne oseća bol znao *šta* proučava? U ovom radu, autor analizira subjektivnu ontologiju svesnih mentalnih stanja i njeno poreklo – perspektivu prvog lica subjekta. Ontologija mentalnog je nesvodivo ontologija prvog lica. U misaonom eksperimentu sa neuronaučnikom Petrom, biće pokazano da sveobuhvatna nauka o svesti zahteva kombinovani pristup, pošto su fenomeni neuronauke iznutra definisani. Asimetrija između perspektiva prvog i trećeg lica u pogledu mentalnih stanja biće snažno naglašena. U trećem delu rada biće ponuđen perspektivni pristup teškom problemu svesti. U zaključku, istinski objektivna nauka o subjektivnosti, prava nauka o svesti, morala bi da se naučno pozabavi egocentričnom perspektivom prvog lica subjekta.

Ključne riječi:

Subjektivna ontologija, perspektiva prvog lica, fenomenalni kvalitet, mentalno stanje, neuronauka

“Science cannot solve the ultimate mystery of nature. And that is because, in the last analysis, we ourselves are part of nature and therefore part of the mystery that we are trying to solve.”
(Planck, 1932, p. 217)

“We now begin our study of the mind from within.”
(James, 1983, p. 219)

“[In these cases] we ourselves appear in a dual role of both the researcher and the object of research.”
(Grahek, 1990, p. 54)

Natural science tells us that the world comprises particles arranged into material things, some of which are biological organisms. All these things are objective. At one point, subjectivity comes into play, as among these organisms, some are conscious. However, consciousness is ineliminable and “irreducibly subjective” (Searle, 1992, p. 96). How can the aggregation of countless individually unconscious and objective particles give rise to something qualitatively different, a subjective consciousness (McGinn, 1989)? The other side of this question is whether there can be an objective science about this subjectivity and the subject itself (Searle, 1992; 1997; 1998). There exists a particular dichotomy. Science is objective, not simply in eliminating personal opinions and prejudices, but because its object is objective, “because reality itself is objective” (Searle, 1992, p. 10). It concerns “only with what one man can *demonstrate* to another” (Ashby, 1960, p. 12). Moreover, entities are equally accessible to all observers. On the other hand, consciousness, by its nature, is subjective; experiences cannot be shared or compared side-by-side. It is impossible for us to know what subjective experiences another person is having. And, in contrast to equal accessibility of “objective objects”, in investigating consciousness, there is an *asymmetry* between subjective experiencing and objective observing, or experiences and brain activity. I am not experiencing, for instance, my C-fibers firing; instead, I experience pain. Conversely, you (a neuroscientist) are not perceiving my pain; you are perceiving my C-fiber activity. My conscious mental states are accessible to me in a manner that they are not accessible to you (Searle, 1998, 43), i.e., the first- and third-person accounts (of the same thing) vary significantly. Even if it is a case of psycho-physical identity, we still access the same event from two different perspectives. We understand our mind through reflection and introspection, which are first-person subjective,¹ but we explain our brain through science, which is third-person objective and verifiable. Hence, consciousness itself is not a problem; *the subjectivity of consciousness is. It alone distorts mental*

¹ They are subjective not only with respect to their phenomenal or qualitative character; instead, one could argue that theories of old in the philosophy of mind are systems devised entirely in the first-person perspective.

states, introducing different perspectives and giving them phenomenal character, thus making them inaccessible to others.

The abovementioned account of the physical world “presuppose a third-person conception of reality” (Searle, 1992, p. 100). The metaphysical thesis of materialism posits a world that is causally closed and ontologically uniform: there exist only physical entities and states and occur physical events and processes. Consequently, physicalism’s preferred method was to simply eliminate or ignore the subjective aspect of consciousness. The subject has no place in an ontologically objective world. A materialist concludes “that there really isn’t such a thing as consciousness with a first-person, subjective ontology” (Searle, 1998, p. 45). Theories about subjectivity “collapse the subject’s first-person perspective into the external observer’s third-person perspective” (Velmans, 1991, p. 667). The reductive third-person objective theories about subjectivity are “logically compatible with its absence” (Nagel, 1974, p. 436). However, even when first-person accounts are translatable into third-person ones, it does not imply that they are (fully) reducible. Would this render the subjectivity an “extra fact” about reality (Jackson, 1986)? Alongside the challenge posed by the subjective aspect of mental states, there is also the issue of the subject itself, for “there is no way on that model to observe the act of observing itself” (Searle, 1992, p. 98). Can there be an objective natural science of consciousness that addresses consciousness in its subjectivity?

This paper aims to clarify the concept of consciousness subjectivity by divorcing it from the phenomenal aspect and advocating that it primarily resides in its first-person perspective. In other words, subjectivity is ought to be regarded not as an inherent property of mental states themselves, à la qualia, but rather as a consequence of consciousness structure, the result of its perspectivity. There is nothing in mental states themselves that makes them subjective; instead, that they are for the observer, renders them so and imbues them with their phenomenal quality. Akin to anamorphosis in visual arts, a technique that provides a distorted image and requires that the viewer occupies a specific point of view, a dispersed activity across different brain regions requires that it be observed from an ego-centric perspective in order to yield a unique, unified meaning or a phenomenal quality. First, the idea of subjective ontology and its implications will be explored through a thought experiment involving a neuroscientist who lacks the capacity to experience pain. The second section will delve into the ramifications of this subjective ontology on the objective study of consciousness. Finally, in the third part, the first-person perspectivity of consciousness will be proposed as the source of subjective ontology. It will be concluded that the genuine, comprehensive science of consciousness needs to explain its subjectivity, and in order to accomplish that, it has to engage with the subject’s first-person perspective.

The Janus face of mental states: subjective and objective ontology

When analyzing subjectivity, it is necessary to differentiate between its epistemological and ontological meanings. Epistemological subjectivity pertains to opinions, emotions, tastes, attitudes, and prejudices, which the scientific method (epistemological objectivity) mitigates. In contrast, ontological subjectivity refers to the subjective mode or dimension of conscious mental states' existence (Searle, 1992, p. 93 ff; 1998, p. 44). Things like planets, mountains, animals, and alike possess an objective mode of existence. They are equally accessible to all observers and do not depend on being experienced or observed. Conversely, the subjective mode of existence means that mental states such as pains, feelings, and thoughts exist solely *as* and *if* experienced. Subjective ontology pertains to subjectivity in a structural sense. The objective epistemology of science does not contradict the ontological subjectivity of mental states as a domain of investigation. The statement "I feel pain" is an objectively verifiable fact – even though my experience is subjective, its truthfulness is not contingent on my personal opinion or attitude if I am indeed in pain because the phenomenon of pain encompasses both an objective component, for instance, the activation of C-fibers, and a subjective component, how it feels, the "painfulness" of pain (cf Grahek, 2007).

What does subjective ontology imply? Let us consider one thought experiment. Grahek's version of the knowledge argument involves the case of Peter, an ideal neuroscientist congenitally insensitive to pain.² He possesses complete neurophysiological and physical knowledge about the material substratum and functioning of brain states, especially pain. The question is: "would he learn something new if his pain sensitivity was restored?" (Grahek, 1990, p. 60). Grahek concludes that Peter's knowledge would be incomplete prior to gaining the ability to feel pain. Specifically, he would lack an idea or representation of the sensation and qualities "from the inside": "[his] knowledge would lack the qualitative or subjective aspect of this mental state, and that aspect undoubtedly represents the essential property of pain" (Grahek, 1990, p. 66). If Peter were to imagine a mental state such as pain, it would be devoid of phenomenal quality. He would find himself in the same situation as when we try to visualize bat's echolocation or when a congenitally blind person imagines what it is like to see something. When the feelings or senses are restored, the *what-is-it-like* to endure pain would also be formed, and the "phenomenal or qualitative features of these states would become available".

Firstly, as already noted, we can distinguish between first-person and third-person access – subjective experiencing and objective observation. I feel pain from a first-person perspective while a neuroscientist observes the workings of my brain

² For the knowledge argument itself, see (Jackson, 1982; 1986; Lewis, 1983). Here, I will not address the argument itself but rather its implications for the neuroscientific (third-person, objective) investigation of consciousness. One of the critiques is that the neuroscientist, in that case, would *not* actually possess complete knowledge, à la Laplace's demon. I leave this aside as well, as we can consider a neuroscientist with only third-person descriptions of phenomena lacking first-person experience.

from a third-person. Moreover, neuroimaging produces artificial, mathematically processed images and brain maps, as well as information about brain regions communication, but not direct information about patient's mental state, rendering such procedures effectively "blind" (Stier, 2020, p. 101). Techniques of microneurography, fMRI, and other precise measurement tools do not provide direct insight into mental states and serve more as an assessment of the functional integrity of neural networks. Additionally, it is impossible to reliably infer consciousness's presence solely based on brain activity, as many complex actions can be carried out while distracted. Brain scan results might merely reflect unconscious brain reactions. In one such example, if a patient in a vegetative state is instructed to imagine playing tennis, the images generated by the brain could be automatic reactions to the word 'tennis' without any conscious or active imagination (Greenberg, 2007).³ As pointed out by Velmans, consciousness does not enter information processing in the brain (Velmans, 1991). Consequently, third-person descriptions provide us with more general information about brain activity and regional functioning, while first-person reports shed light on *what* is experienced. These accounts are complementary and can be translated to one another but remain mutually irreducible. The fact that they can be described from the third-person perspective does not change the fact that they are experienced from the subjects' point of view, and "a complete psychology requires both" (Velmans, 1991, p. 716).

Secondly, we identify and distinguish mental states based on their phenomenal aspect rather than their physical realization or typical causes and effects. Neuroscientist Peter would further acquire the ability to directly and intuitively recognize the sensation of pain and differentiate it from other mental states in the same manner, no longer relying on reasoning or data from measuring instruments. As Campbell asserts,

"[So] far as many mental states go, by their qualia shall ye know them [...] value them, imagine them, remember them, and fear them" (Campbell, 1983, p. 136).

We differentiate by its phenomenal character that the pain is sharp rather than dull and whether two mental states share something in common or are the same state (Grahek, 2007, p. 107). After sustaining an injury, if I do not feel pain because of the adrenaline, I would not conclude that I am *in* pain but that I do not feel it or that I am simply because there is a reason for it (an injury). Even if there is an activation of C-fibers and A- Δ nociceptive fibers (see Grahek, 2007, pp. 11; 141 ff), there is also an interruption somewhere down the line.

Furthermore, we do not have immediate access to the substratum of consciousness. Imagine a Martian who knows his mental states only in the mode of third-person knowledge of substratum. He could infer: "This one has his C-fibers activating; therefore, this one feels pain". We do not rely on external testimonies and accounts to verify in which mental state we find ourselves. Knowledge of brain states is

³ We shall return to these "zombie systems".

mediated and inferential, while knowledge about mental states is immediate and introspective. Brain states are not only incapable of becoming the object of introspective knowledge, they cannot do so under any circumstances. Subjective and objective ontology applies here:

“That is, the mode of existence of the sensation is a first-person or subjective mode of existence, whereas the mode of existence of the neural pathways is a third-person or objective mode of existence; the pathways exist independently of being experienced in a way that the pain does not. The feeling of the pain is one of the ‘qualia’ I mentioned earlier” (Searle, 1997, p. 98).

Brain states have objective ontology and do not require the subject to experience them. Some brain states have first-person access, meaning they are experienced exclusively by the subject occupying a specific point of view, thus constituting subjective ontology.⁴

Thirdly, the phenomenal aspect of pain *is* the pain itself. The feeling of pain is the quale of pain. Simply put, I am not *in* pain if I do not *feel* pain. Pain experience can have different components and features, but the phenomenal one, “the feeling, is the pain itself” (Searle, 1997, p. 99). It is because it is that to which we refer when we identify and differentiate pain from other mental states.

Fourthly, the appearance and being of mental state are the same. When considering objects with an objective ontology, which exist independently of the observer, their appearance and being are distinct. Stars in the night sky appear as white specks, even though we know they are massive hydrogen and helium fireballs, and a straight stick appears broken in water, though we know it is straight. These objects are mind-independent, as their being and appearance do not necessarily align. In the context of objective ontology, the “true nature” of things does not follow from their appearance. It does not follow that the Sun is revolving around the Earth if it appears so. I cannot be mistaken when stating, “It seems to me that the Sun revolves around the Earth”, only in stating, “The Sun *is* revolving around the Earth”. The former is a statement concerning appearance, and the latter reality. In contrast, conscious mental states, being mind-dependent, possess identical appearance and being (Searle, 1992, p. 146). A mental state does not appear differently than it is. I cannot make the same mistake in consciousness because there is no standard distinction between the two. From “It seems to me that I feel pain” it does follow that I do indeed feel pain. It is not a matter of my opinion if I have pain, of which I could be wrong. Instead, if I have a genuine belief that I am in pain – I *am* in pain. Perceptual statements can be withdrawn and corrected, but in the case of pain (phantom pain, for instance), even if the subject discovers that there is no real cause for it, he need not retract the statement and say, “It only seemed to me that

⁴ However, I would disagree that “to be introspectively knowable” is an intrinsic and distinct property of subjective mental states on the basis of hypostatization (cf. Grahek, 1990, pp. 91–92). We will revisit this topic and the next one in greater detail in the third section.

I was in pain”, only assert a different cause (Grahek, 1990, p. 121).⁵

Phantom pain is still pain, though not realized conventionally (via nociceptors, C-fibers, signaling an injury, etc.), but as a “mix-up” in nervous system signals. Pain’s origin can lie in both standard and abnormal functioning. In his work on hallucinations, neurologist Oliver Sacks showed that even blind people with Charles Bonnet syndrome can experience visual hallucinations (Sacks, 2012, p. 3 ff). For instance, facial hallucinations stem from abnormal activity in the fusiform gyrus (Sacks, 2012, p. 206), not implying an objectively perceivable face. Even entirely subjective hallucinations have an objective realization. Whatever occurs in consciousness has to have a realization in the brain; however, we can be mistaken about the causes.⁶ Similarly, brain lesions can lead to chronic pain without any apparent “real” source (Grahek, 2007, p. 15). The hallucination of pain still has a neural basis and remains a pain. Grahek shares this perspective:

“[To] experience a given state as pain means to be in a state of pain [...] on the other hand, not to experience a given state as pain means not to be in a state of pain [for] when it comes to a mental state such as pain, there is no difference between the experienced and actual pain” (Grahek, 1990, p. 115).

Awareness of pain equals feeling it; when I am aware of pain, it cannot be said that I have an impression or experience of ‘that I feel pain.’ Reliability is a consequence of the fact that introspective consciousness lacks its own independent phenomenology that could, but would also not have to, correspond to the object. Phenomenal or qualitative content in introspective consciousness originates entirely from the object of this consciousness and is completely determined and exhausted by it. In that regard, consciousness is an integral part or essential property of mental states (Grahek, 1990, p. 115).⁷

This highlights yet another aspect of Peter’s newfound insight. Even with complete neuroscientific, third-person objective knowledge, we still experience pain *as* pain. Neuroscientific knowledge does not alter conscious experience itself. One can learn everything about refraction, know that the stick is straight, yet still perceive it as broken in water. One can learn everything about astronomy, yet still perceive the Sun’s revolution around the Earth. Likewise, one can also know that the pain is caused by a pinprick, transmitted by C-fibers, that the injured limb does not exist, yet he will experience it and be conscious of it *as* pain. One can never experience

⁵ It is important to note that all possible mistakes about one’s mental state originate in reflection and reflective judgments, not in their appearance, see (Sartre, 1991, p. 62 ff).

⁶ For instance, the statement “I see a face” – if I indeed see a face – cannot be erroneous. I am wrong if I believe that there *is* a face that I am seeing, which I am, in fact, hallucinating (in which case I have mistaken hallucination for perception), or if I believe that I am hallucinating a face that is actually there (in which case I have mistaken perception for hallucination). In other words, I cannot be mistaken in subjective ontology – it is simply that with which I am presented; however, I can be mistaken when claiming its underlining in objective ontology.

⁷ This, essentially, is Descartes’ *cogito* argument or Kant’s ‘I think’ which follows my representations, see (Descartes, 1985, p. 195; Locke, 1997, p. 302; Kant, 1998, p. 246).

pain as activation of C-fibers or as a neurophysiological process. Having knowledge that the brain generates consciousness, rather than cooling blood, or believing that the immaterial soul does so, has no impact on the functioning of consciousness itself – it remains the same phenomenally, “from the inside”. We are, so to speak, immersed in our phenomena, only inferring about their substratum (see McGinn, 1989). Consequently, before gaining the ability to feel pain, Peter knew pain as “that” conscious mental state that people allegedly had when their C-fibers were active, discerning it in a third-person manner. Pinprick for him did not cause pain; it caused activity in nociceptors. Now he *understands* what they meant; he understands and distinguishes pain in a new way, “by means of some new property that was not included” (Grahek, 1990, p. 85). Pain for Peter will transform from a complex third-personal neurophysiological state to something defined by a unique phenomenal property, something personal, subjective. I do not understand other’s pain by their screams; instead, I understand their cries by their pain, which, in turn, I know in analogy with my pain. For that, I need to be exposed to the actual pain phenomena. What reason would Peter have to believe the reports of his patients that his experiments were unpleasant? He will no longer rely on analyzing the situation or context to infer the phenomenal state of his patients but on analogy with his own, as he can pay attention to the actual phenomenon itself, birthing empathy. Peter would now be able to *comprehend* that the activation of C-fibers elicits pain, which is necessary for the science of consciousness.

This further implies that distinguishing the appearance of a conscious mental state from the state itself is redundant. The benchmark or criterion of objective science is the object itself. If I postulate that a thing is such and such, then what gives my statement truthfulness is if the thing indeed *is* such and such. In the science of consciousness, navigating subjective ontology, the benchmark is in the subject himself. Access to this standard is through first-person introspection, as it remains beyond reach from the third-person objective approach, illustrated in Peter’s case. Let us explore these implications for the science of consciousness.

First-person access: asymmetry and phenomenology

As quoted in the paper’s opening motto, we appear in a dual role when investigating consciousness.

“The uniqueness of our research position when it comes to mental states consists precisely in the fact that, in relation to this type of states, we are not only in the role of observer or the third-person but also in the role of the subject or the first person. This means that we can adopt both points of view – experiential and observational – when considering a state like pain” (Grahek, 1990, p. 64).

As mentioned, conscious mental states are *multifaceted* phenomena, encompassing objective and subjective elements, i.e., ontology. They are characterized by physical realization, functional role, and phenomenal character (it need not

apply that they themselves possess phenomenal properties as their intrinsic properties). Unlike other bodily processes, we have first-person access to them. There is no first-person access to blood flow or digestion. I cannot report “from inside” how their changes affect me. If my doctor says that tests show I have high blood sugar, I have to accept it as a fact, even though I can deny it by saying, “But I feel fine!” Conversely, if the neurologist says, “Your C-fibers are active”, I can respond with, “Yes, my back hurts”. Some objective third-person processes occurring in an organism have first-person access, and others do not. Moreover, those that do are often accompanied by introspection. If, for some reason, I did not feel anything, despite my C-fibers being active (due to potential interruptions in information processing downstream), then I would not be able to introspect my state because I would not have first-person access to it. Hence, if consciousness did not possess a perspective, introspection would not be possible, as it is carried out from the same point of view as experiencing. Approaching solely from the standpoint of an observer, one cannot have comprehensive knowledge or a reliable portrayal of conscious mental states. The incompleteness of the third-person investigation perspective arises from the limitation as “the subjective dimension of the realm of mental phenomena is inaccessible to the observer” (Grahek, 1990, p. 63). He will leave out the fact that those states look like somehow from a different perspective. Multifaceted phenomena would be reduced to only one side.⁸ Both perspectives are necessary in order to have a comprehensive picture of conscious mental states. We require a middle ground because our knowledge of our mental states is intuitive and experiential, evading propositional articulation or objective description. Conversely, the path toward objective description inevitably distorts and erases the phenomenon of consciousness itself (Grahek, 1990, p. 187).

In some instances, gaining third-person access to one’s own mental states would be beneficial. In his meticulous study on pain, Grahek shows cases of patients with congenital analgesia introduced to artificial pain detection systems. They would, for instance, produce a loud sound or give a mild electric shock to the patient who was hurting himself (Grahek, 2007, p. 83 ff). However, all the systems failed because they “had no innate link to their sense of *self*” (Brand & Yancey, 1993, p. 195). Electric shocks were perceived with resentment, as a punishment for an activity and not a threat to their own well-being. Auditive signals were interpreted as false signals, and a patient could always choose to continue with the harmful activity. The authors concluded: “the fundamental weakness in our system: it remained under the patient’s control [...] Any system that allowed our patients freedom of choice was doomed” (Brand & Yancey, 1993, pp. 195–196). An effective pain substitution device cannot be susceptible to volition but rather debilitating, just as the pain itself is. Even if the substitute pain system were so well integrated that it was grafted onto our nerve sensors, C-fibers, or a specific brain region – it would

⁸ Imagine committing the same mistake with objects within objective ontology, such as chemical compounds, by taking into account only certain interactions while disregarding others.

still fail because the signals would lack a phenomenal aspect and a link to the self. As Brand explains:

“[A] person who never feels pain is task-oriented, whereas a person who has an intact pain system is self-oriented. The painless person may know by a signal that a certain action is harmful, but if he really wants to, he does it anyway” (Brand & Yancey, 1993, p. 195).

The innate link to the first-person perspective emphasizes self-orientation. Moreover, this further highlights that simply knowing an activity is painful, without experiencing it phenomenally *as such*, has no direct consequences on our behavior, just as, *vice versa*, Peter’s neuroscientific knowledge does not alter his experience.

In Feigl’s thought example, a device called the autocerebroscope would allow us to observe our own brain states on a screen and compare them with introspective ones (Feigl, 1967; Meehl, 1966). Imagine a person with a headache who uses the autocerebroscope and realizes there is no corresponding brain state of pain, or *vice versa*. Would he find out that he has a headache even if he does not feel it, or that he is mistaken and does not have a headache even though it seems to him that he does? Would he give advantage to his subjective first-person experience or to objective third-person observation, in a sense, to a subjective or objective ontology? Such discrepancies, I argue, would be impossible. In a more straightforward scenario, one could witness his own heart beating in a mirror during open-heart surgery. The beats that he is experiencing in his chest *are* the contractions he observes in the mirror. If he witnessed his heart stopping, then the sensation of beats would likewise cease. Alternatively, if it did not, then something else is producing it. There is no difference in right or wrong, phenomenal or physical precedence, only *asymmetry* between first- and third-person perspectives. However, if Peter employs the autocerebroscope to observe his own brain states, he would merely confirm what he already knows, unable to identify it with anything beyond what he sees.⁹

As in the cases of artificial pain systems, auditive signals or observed brain states mean nothing to me if *I* do not experience anything. Neglecting the “for us” aspect eliminates the first-person dimension. Subjective elements of mental states are unlike objects in other sciences, accessible to various methods, instruments, and different researchers. The science of consciousness should incorporate phenomenological results as well as the achievements of objective sciences. Despite its flaws, phenomenological introspection is our sole avenue to the subjective aspect of consciousness. Let us consider an extreme case of neuroscientist Peter.

⁹ Remember the Martian who knows his mental states only in the mode of third-person knowledge of substratum. He would be unable to establish a correlation that this one is in pain because this one has his C-fibers firing.

Zombie neuroscientist

Imagine a zombie, AI, or a Martian neuroscientist tasked with uncovering secrets of the human brain, relying solely on third-person objective knowledge and descriptions (he could not be charged with finding the mysteries of the human mind, for he would not be able to grasp the phenomena of his research). The question is, *what* exactly would he seek to understand? He could explain that after a pinprick, a certain electro-chemical and neurophysiological chain of events happens, these fibers and that brain regions, resulting in a hand jolt and an “Ouch!” I could inform him that I no longer feel pain after his procedures and experiments. Would he be able to comprehend what I am saying?¹⁰ – That my brain once produced some mysterious “immaterial” sensations when pinpricked that have now all but vanished, and that the connection between pinprick, C-fiber activity, flinch, and “Ouch!” was not purely mechanical? Let us imagine further that the studied patient also lacked the capacity to feel pain. In such a scenario, the neuroscientist would be inclined to conclude that brain regions processing information from nociceptors were superfluous, akin to vestigial organs like wisdom teeth or an appendix. In his short story “The Country of the Blind”, author H. G. Wells explores the idea of how a society of congenitally blind people would not believe a man who could see, dismissing his claims as imagination and deeming him insane. In the end, the village doctor offers to “cure” the protagonist by surgically removing his eyes, as in his theory, these vestigial organs affected “his brain [to be] in a state of constant irritation and distraction”, causing his madness (Wells, 1997, p. 21). A congenitally blind neuroscientist might also treat the visual cortex as a vestigial brain region. Like Peter, he would likewise struggle to grasp the phenomena he was trying to explain by neurophysiological processes.

To the AI neuroscientist, it would be *as if the organism is unconscious*, and his theories would be “logically compatible with [consciousness]’ absence”. His attempt at understanding our mental life (if he had any) would be way worse than our attempt at understanding bat’s, for we could at least try to imagine the *what-is-it-likeness* of echolocation in comparison with other senses only because we already possess a mental life of our own from our first-person perspective. A “blank” drone or AI would have nothing similar to compare mentality with, even in analogy or imagination. Neuroscientist’s lack of personal pain experience would hinder his understanding of pain as a subjective phenomenon. Furthermore, the absence of pain in the patient being studied would lead to potentially misconstrued conclusions about the significance of the brain region processing nociceptive information.

Again, an asymmetry emerges, as one aspect of conscious mental states can solely be approached via first-person experiencing. A mental state appears in an entirely different light depending on the perspective, if we experience or observe it. Third-person study scrutinizes external conditions, reactions, roles, and physical

¹⁰ Disregarding the problem if he, as an alien, could even understand my language and intentions, or if it would be a Wittgensteinian case of “if a lion could talk”.

realizations. The difference between pain and itch would be based solely on the fact that they are physically realized in different brain processes. However, when we approach them from the first-person perspective, they appear as if their phenomenal aspect is their primary characteristic or that it is *what* we are investigating. From the first-person point of view, the subject will discover that under a certain combination of external stimuli, they are in a state characterized by certain phenomenal or qualitative properties that the physical language cannot describe. They will also claim that such phenomenal or qualitative states are causally efficacious, inducing bodily reactions or leading to certain behaviors. The causal efficacy of mental states can only be discussed if observed “from the investigative perspective of the first-person” (Grahek, 1990, p. 43). This introduces a difference between understanding and explanation within the philosophy of mind. A neuroscientist would be able to know, i.e., to have information, but without a mental life of his own, he would not be able to understand. Understanding requires experience and the ability to put oneself into the other’s shoes. Achieving this entails judging patients by one’s own experiences. Knowing someone’s pain entails knowing what pain is through *exposure* to the phenomena.

We can draw several conclusions. Firstly, the sole connection between first- and third-person inquiry into consciousness, i.e., inference about third-person brain states is based on analogy and correlation with the first-person perspective.

“We attribute consciousness to the brain not because we can observe it there, or infer it from what we can observe, but because first-person introspection shows that it changes when the brain is altered. If it were not for introspection, we would have no reason to attribute consciousness to the brain at all – any more than to a rock” (McGinn, 1996, p. 45).

In another instance,

“[No] amount of strictly objective, third-person information about the animal and his or her brain and behavior could result in a description of any [subjective] features, except by inference based on the first-person perspective” (Natsoulas, 1991, p. 175).

Lesions in the insular cortex hinder the ability to attach emotional significance to pain stimuli (Grahek, 2007, p. 51 ff). We know this not because we already know its function, but we know its function because lesions are manifested phenomenally in patient’s conscious experience. Neuroscience can give empirical, objective truths about physical realization of pain. Nevertheless, in order to grasp the pain and what he is trying to explain in the first place, neuroscientist must have firsthand access to the phenomena. Searle asks:

“How would we know whether or not some other ‘system’ has such-and-such mental properties? And the only scientific answer is: By its behavior” (Searle, 1992, p. 11).

However, the right question would be: how do we even know what kind of

mental properties we seek, the “such-and-such” features of theirs?

As noted in the introduction, we grasp our minds via introspection and reflection, which are subjective, and we comprehend our brains through objective, third-person empirical science.

“If we think of the brain from the outside point of view, then we fail to capture consciousness; but if we try the inside point of view, we just get experience itself” (McGinn, 1996, p. 46).

Thoughts give rise to further thoughts, while particles only interact with other particles. Introspection does not start from a substratum of consciousness, nor does it reveal it, and science cannot access the subjective contents of consciousness. These approaches are not conflicting; they complement each other. That the phenomena of the science of consciousness are defined internally is often overlooked. We do not start from what neuronal activity signifies – that it *does* is already presupposed based on introspection. Instead, it is the opposite, commencing from the phenomenal sphere we seek, for instance, the neural basis of pain. Prior to any psychological or neurophysiological analysis, we are already familiar with the phenomenal aspect of pain and its significance. Moreover, it is implied that we apprehend the *eidos*, its invariable structure, i.e., that we know what pain as such (phenomenally) is. Neuroscience already assumes much. This is also a prerequisite for psychiatric discourse or any other that involves mental states since it is impossible to have immediate access to other consciousnesses. Hence, the genuine object of the science of consciousness is established by introspection; it *is* our mental life, solely subjectively accessible. Neither Peter nor a hypothetical zombie neuroscientist could reach the object of investigation “through” neurophysiology alone. As Velmans gives an example:

“[Electromagnetic] energy can be observed to innervate the eye and visual system, but there is no way of knowing that this results in a ‘red’ sensation without incorporating the subject’s point of view” (Velmans, 1991, p. 714).

Phenomenological introspection should take precedence in defining, differentiating, and demarcating the object or conscious phenomena, which are then *enriched* and *supplemented* by third-person descriptions and explanations, which do not tell us anything about our subjective lived-through experiences by themselves. Something appears to me as red and maintains its appearance regardless of whether I know “why” or “how”. Accumulated knowledge about wavelengths, electromagnetic radiation, rods and cones, and alike adds a scientific layer to our subjective experience. The problem arises when the former is reduced to the latter, and the first-person experience is derived from a third-person description, saying that a specific wavelength *is* red. Kant’s idea that intuitions without concepts are blind and concepts without intuitions are empty (Kant, 1998, pp. 193–194), applies here – the science of consciousness without phenomenology is blind, and phe-

nomenology without the science of consciousness is empty. An illustration comes from cited Sacks' work on hallucinations, demonstrating that interaction between a patient's first-person experience and neurologist's third-person observations is essential. Patients themselves need not be aware of the impairments that cause anomalies; their deficit becomes an integral part of their inner life. Precisely this subjective experience guides the researcher to a specific brain region. Results from both perspectives ought to be incorporated.

“[In] order to obtain a comprehensive and credible depiction of a state such as pain, it is necessary to observe this state from both research perspectives” (Grahek, 1990, p. 64).

Velmans agrees:

“[A comprehensive science of consciousness] will require accounts from both ‘subjective’ first person points of view and ‘objective’ third-person points of view” (Velmans, 1991, p. 680).

Critiques might argue that this is trivial, as neuroscience already operates in that manner, that there already is such an approach – it is called psychology (Varela & Shear, 1999, p. 216) or neuroscience (Dennett, 1991, p. 72), or that contradiction is too large (Varela & Shear, 1999, p. 269). Nevertheless, a point can be made that “the subjective side” lacks proper systematization, often relying on concepts from folk psychology, everyday experiences, and ordinary language. Scientists are ready to scrutinize processes down to the individual neuronal activity, yet accept layman's testimonies uncritically without discerning the aspects of the analyzed phenomena, confidently assuming a comprehensive grasp on it. As Gunderson clarifies:

“[When] consciousness is considered from a first-person point of view, there also seems to be sense in which we feel almost omniscient with respect to what it is. We say, with great confidence, ‘Consciousness is the sort of experience I am now living through! What more could we want in order to understand it!?’ But the answer that haunts us seems to be both ‘Nothing’ and ‘Everything’” (Gunderson, 1985, p. 245).

The perspectivity of consciousness and anamorphosis of mental states

What about the source of consciousness' subjectivity? Subjective or first-person ontology means *subject-dependent* ontology; the subject is its source. As Searle states,

“[Conscious mental states] exist only from the point of view of some agent or organism or animal or self that has them. [...] Only as experienced by some agent – that is, by a ‘subject’ – does a pain exist” (Searle, 1998, p. 42).

A pain not experienced by anyone does not exist. Conscious mental states are inherently subjective in that they exist only *as* and *if* experienced by a subject, human, or animal; they are always someone's. In other words, they are always

experienced and cannot *not* be experienced by a subject. They are *for us* and not *in themselves*. Every mental state of mine exists only as the state it is because it is experienced by me, thus constituting *my* conscious life.

Nagel claims, in a now famous quote, that

“[An] organism has conscious mental states if and only if there is something that it is like to *be* that organism – something it is like *for* the organism. [...] The reason is that every subjective phenomenon is essentially connected with a single point of view” (Nagel, 1974, pp. 436–37).

And, Grahek concurs with this, stating that

“[Conscious mental states], at least on one side, must be cognitively tied to a subjective or experiential perspective. The reason lies in the fact that the phenomenal or qualitative aspect of mental states is available only to someone who observes them from a first-person perspective or as the subject” (Grahek, 1990, p. 61).

Phenomenal or subjective qualities, i.e. qualia are inextricably linked to the first-person perspective or the subject (Campbell, 1970, p. 106; Gunderson, 1985, p. 236; Searle, 1992, p. 93 ff; 1997, pp. 98–99; 1998, p. 42), and conscious beings alone can have a point of view (Kahane & Savulescu, 2009, p. 17; Levy & Savulescu, 2009, p. 368; Levy, 2014, p. 133; Stier, 2020, p. 112). McGinn concludes in this light,

“Thus perceptual experiences are Janus-faced: they point outward to the external world but they also present a subjective face to their subject; they are of something other than the subject and they are like something for the subject” (McGinn, 1991, p. 29).

Subjective phenomena depend on a single point of view, “and it seems inevitable that an objective, physical theory will abandon that point of view” (Nagel, 1974, p. 437). Simply put, the subjectivity of consciousness implies *an observer*. It does not reside in the mental states themselves – *subjectivity is not a property of mental states*. Rather, it lies in the subject and his first-person perspective. It is a different approach and way of looking at the hard problem of consciousness. If the occurrent mental state itself does not possess qualia, where then do they come from?

We have mentioned that conscious mental states are multifaceted phenomena encompassing both physical realization and phenomenal dimension. The argument usually goes: how does pain itself feel or the quale of red, “the itchiness of itches [...] or seeing the sky” (Jackson, 1982, p. 127). However, although I agree in principle, I would also argue that attributing phenomenal qualities to the states themselves is an act of hypostatization. It would be redundant to claim that when experiencing something red or a pinprick, the occurrent mental state itself has a quality of redness or painfulness that I may or may not experience. I do not further experience my experiential states. For instance, if I am watching a sunset, I am not experiencing the movement of planetary bodies and the sunset. Even if the sunset

is defined as an illusion caused by the Earth's rotation, the sunset itself, contrary to Searle, cannot be reduced to the planetary motion alone (Searle, 1992, p. 61). The current movement of the Sun and the Earth, experienced from my point of view, *is* the sunset. Otherwise, the sunset would also be the sunrise, for sunrise is likewise the same planetary motion, albeit experienced from the opposite side of the planet. The motion *becomes* the sunset only from the right point of view and, thus, is not reducible solely to the motion but to the motion *observed* from a point of view. In other words, the third-person objective ontology remains identical in both cases, and introducing a point of view does not add anything substantial or metaphysical to the system; however, at the same time, it does distort it, introducing a unique perspectival phenomenon with its subjective ontology. It does not mean it is an illusion, for it objectively exists, only that it is observed. The Janus face of mental states originates not in their duality or dual aspect; rather, from the fact that they are for the subject, making them perspectively distorted or *anamorphic*. Anamorphosis is a type of distorted projection or a perspective technique that requires the viewer to occupy a specific vantage point in order to appear normal. The original drawing can only be seen from a particular angle or reflected in a curved mirror. Without the right point of view, we are confronted only with a mess of smudged colors and shapes; after introducing a cylindrical mirror, in it the distorted image appears normal. As quoted above, conscious mental states *exist only from the point of view* of the subject, and their qualitative aspect is *available only to someone who observes them* from a first-person perspective. Subjective ontology means that conscious mental states exist only *as* and *if* experienced. Introducing a point of view into the objective system changes or distorts everything. How does this fit into conscious mental states?

In his later work on pain, aptly titled *Feeling Pain and Being in Pain*, Grahek (2007) showed that mental states possess multiple realizations and phenomenal unity. He disputes the aforementioned subjectivistic definition that the phenomenal aspect of pain is the pain itself or, at least, its essential property. Pain is always presented as a simple, unified, and homogenous experience. However, in reflection, we distinguish components such as intensity, location, duration, and modality, which can be clustered into three main groups: sensory-discriminative, emotional-cognitive, and behavioral components (Grahek, 2007, p. 2). Information pertaining to each of these components is processed in different brain regions. For instance, the emotional component is processed in the insula and behavioral in the parietal operculum, roughly speaking (Grahek, 2007, p. 64). Hence, the neurophysiological processes and brain regions underlying these components are distributed, complementary, parallel, simultaneous and work *synergistically* to provide us with a unified and coherent pain perception experienced from the first-person perspective. They “are working reciprocally and interactively, rather than independently. That is why, phenomenologically, they appear to us in homogenous, gestalt guise” (Grahek, 2007, p. 93). Consciousness then operates with this “overall” aspect rather than

individual pieces of information. Nonetheless, these mechanisms may encounter disruptions due to brain lesions leading to various dissociative syndromes in pain experience, which include congenital analgesia, leprosy, lobotomy, cingulotomy, and, most notably, a unique case of pain asymbolia. Incorporating patients' first-hand reports and behavior with neuroscientific knowledge about the functionality of neurons, brain regions, and lesions, Grahek concludes that patients with asymbolia have a unified pain sensation without aversive elements (Grahek, 2007, p. 103). Patients recognize the sensation of pain yet remain immune to its suffering. They have a unified, consistent pain quality in response to harmful stimuli, which unifies different modalities, locations, intensities, and alike, but it does not represent danger or threat; they are not bothered by it or feel distressed, and they can even find amusement due to unfamiliarity with proper reactions. Although asymbolics feel pain, they are not "in" pain, i.e., they lack painfulness of pain (Grahek, 2007, p. 100). It is a pain without unpleasantness, aversivity, retaining sensory-discriminative attributes like location and intensity. This condition demonstrates the dissociation of emotive-cognitive and behavioral components of pain from sensory-discriminative. Hence the name "asymbolia", signifying an inability to attach appropriate meaning or significance (Grahek, 2007, p. 120).

Grahek further asserts that studying pain asymbolia patients can elucidate the concept of qualia. He states,

"[We] have finally come to the very essence of pain; that the pure juice of pain quality – the what-it-is-likeness of pain – has been extracted and clearly presented" (Grahek, 2007, p. 76).

Pain stripped of its affective, cognitive, and behavioral components loses its representational and motivational power (Grahek, 2007, p. 40), becoming "a blunt, inert sensation" (Grahek, 2007, p. 73). It no longer serves its biological purpose (Grahek, 2007, p. 4). Grahek concludes that what was once seen as the essence of pain is actually ersatz pain – "when pain is reduced to pure qualia, it loses any force" (Grahek, 2007, p. 77). Pain asymbolia is a "case of pain without any painfulness, of pure pain reduced to totally indifferent sensory detection and discrimination of injurious stimuli" (Grahek, 2007, p. 36). Pain must also *be* painful, miserable, unpleasant, debilitating, and aversive. According to him, pain asymbolia challenges the subjectivist view that distinctive phenomenal content, the *what-is-it-likeness* of pain, is crucial for the pain experience, for someone to *be in pain*. In short, if pain is not experienced as unpleasant, the very qualia is decomposed.

However, if the *what-is-it-likeness* of pain is not its essence but pain itself, then pain asymbolia is not a case of pain. Grahek also refrains from deciding if these are pain cases (Grahek, 2007, p. 5). Furthermore, terming that which asymbolics feel as "pain" would contradict the fourth point, i.e., that the appearance and being of pain are the same. From my first-person point of view, quale of pain is the pain; separating painfulness from pain while retaining it as something subjective implies

that I can *feel* pain without recognizing it because it would lack its essence or its *differentia specifica*. Be it as it may, this difference does not affect the distinction between subjective and objective ontology; what's more, it reinforces it – not everything with objective ontology finds its way “into” consciousness, meaning that my organism can be “in” pain, without me knowing it.

The important thing to note from this research is that mental states are complex; they have constitutional elements, play proper roles, work together, and possess “basic neural structures and mechanisms that subserve them” (Grahek, 2007, p. 40). These do not tell us anything when observed from the objective, third-person perspective (through fMRI, for instance), only when experienced from the first-person point of view, akin to the anamorphosis. Compared to the sunset, one can describe seeing the vivid redness of the sky or perceive the Sun as a mere coin-sized disk on the horizon, while, simultaneously, from a third-person perspective, it would be true that what exists is only the Sun and the Earth, and their motion. Brain regions synergistically contribute to a unified pain experience, and yet, owing to their distributive character, they remain unobserved islands or, at best, they constitute pain without anyone there to notice. This does not entail that we are experiencing our brain states, only that they are meaningless without perspective. Different brain states somehow “*look like*” from the first-person perspective of consciousness. The idea of the perspectivity of consciousness would thus be able to explain the uniqueness of qualitative experience while still preserving the materialistic approach. Just as the mess of colors *becomes* a recognizable face from a point of view, and the motion of planetary bodies *becomes* the sunset, likewise distributed information processing in different brain regions *becomes* pain from a first-person perspective.

Zombies and zombie systems: when there is nobody home

Neuroscientific research has shown that the brains of patients in a persistent vegetative state exhibit the same patterns of neural activity as those of fully conscious individuals. For instance, when shown familiar faces, the fusiform gyrus, the area responsible for face recognition, lit up the same way as in a normal brain (Damasio, 1999, p. 166). The fMRI scans of unconscious patients also showed patterns of activity in auditory regions akin to those seen in conscious and awake individuals when asked a question (Damasio, 2010, p. 162). This can suggest that certain aspects of cognition, such as speech perception and semantic processing, can persist in the absence of consciousness (Owen et al., 2006). The brain processes and regions can still manipulate proper information, although it is not accessible for the meta-representational functions related to the self (Stier, 2020, p. 113). These are often referred to as “zombie systems”, which can continue functioning in mechanical and automatic activities like driving (Levy & Savulescu, 2009, p. 363 ff).¹¹ The brain is capable of

¹¹ The activity of Martian's neural pathways has the same third-person existence without the observer as zombie systems.

performing remarkably complex and sophisticated actions without involving consciousness, including instances such as cognitive, emotional, or voluntary responses in comatose patients (Eickhoff et al., 2008; Monti, 2012). The brain process, combines and contextualizes information, yet this occurs at a subpersonal level without conscious reflection and a singular, self-aware subject. In other words, neuronal activity is ongoing *without anyone there to notice*. According to Damasio, without the self,

“[The] mind would lose its orientation, the ability to gather its parts. One’s thoughts would be freewheeling, unclaimed by an owner. Our real-world efficacy would drop to little or nothing, and we would be lost for those observing us. What would we look like? Well, we would look unconscious” (Damasio, 2010, p. 170).

This would imply that phenomenal quality is not something simply intrinsic to mental states but, instead, to a perspective. Consider a supercomputer that, armed with complete neurophysiological knowledge, could simulate a phenomenal mental state of pain without a subject experiencing it, akin to how it is possible to keep an organ alive outside of any organism. Would it be ethically wrong to initiate such a simulation? Even though no harm is being done to anyone and nobody experiences it, pain would still be produced. Regarding zombie systems, this concept is not purely science fiction. Stier thinks that

“One could argue that an unconscious patient cannot be harmed because in this case ‘*there is nobody*’ who could be harmed” (Stier, 2020, p. 105).

The idea of a depersonalized mental state, detached from any independent subject, perplexes our common-sense intuitions. Wagering in cases of zombie systems, what sets apart a conscious mental state from one without consciousness is that “[for] it to be a pain, it must be *somebody’s* pain” (Searle, 1992, p. 94). *The presence of a subject experiencing pain is a necessary constituent of a conscious mental state*. Subjective ontology implies that there is no pain without the subject who experiences it as such, just as there is no sunset in planetary motion unless we posit a point of view. The Sun appears to be setting behind the horizon due to my perspective playing a role in defining a sunset, as well as in constituting pain. Such phenomena have distinct ontology but not necessarily a distinct substance. Nonetheless, the subject’s perspective alone is insufficient, as even a camera has a perspective, yet it does not feel. As something cannot “*seem to be* in a certain way to a merely material system” (Campbell, 1970, p. 107), additional components are likewise needed.

This has ramifications for the zombie argument in classical philosophy of mind literature. He would not only lack a qualitative dimension of his physically and functionally equivalent mental states, but a cause for his “inner darkness” would also lie in the absence of a first-person perspective. In this, I concur with Searle that “the mental-nonmental distinction cannot be just in the eye of the beholder but it must be intrinsic to the systems” (Searle, 1980, p. 420).

Conclusion: objective science about the observer

If consciousness makes the mind-body problem intractable (Nagel, 1974, p. 435), then the subject's first-person perspective is what makes consciousness intractable. Husserl was one of the first philosophers to emphasize the role of structural integration of I-center or I-pole orientation in consciousness (Husserl, 1983). The perspectival organization of experience is necessary in order to be conscious or to have conscious experience. Imagining an irreducible subjective ontology means imagining an irreducible subject, the observer. There are no mental states as such without the subject, just as there is no sunset in planetary motion unless we posit a point of view. The presence of the subject experiencing is a necessary constituent of a conscious mental state alongside other components. There is something it is like to *be* a subject, *for* the subject. To truly address the hard problem, the proper goal of neuroscience should become the objective third-person description of the subject and his egocentric, first-person perspective or point of view. Until we can scientifically observe the very act of observing itself, consciousness, and especially self-consciousness, will continue to elude objective science.

However, on the beaten path of neuroscience,

“There is, in short, no way for us to picture subjectivity as part of our world view because, so to speak, the subjectivity in question is the picturing [...] there is no way on that model to observe the act of observing itself” (Searle, 1992, p. 98).

The world does not have a point of view; nevertheless, my access to the world is always perspectival, from my point of view. The act of observing is the ontologically subjective access to the objective reality; I cannot observe my own subjectivity, for any such act of observation “is itself that which was supposed to be observed” (Searle, 1992, p. 99). When introspecting conscious mental states, my act of introspection or observation is a “lived through” conscious mental state in itself. The very structure of consciousness makes it invisible to itself when immersed in the world of objects, similar to how eyeglasses are transparent when focusing on the things we see, as when “*we try to draw our own consciousness, we end up drawing whatever it is that we are conscious of*” (Searle, 1992, p. 96). The proximity of our first-person perspective, from which we observe, is sometimes “too obvious” (Taguchi, 2019). The observer is so obvious that it risks becoming invisible, transparent to itself. Furthermore, imagining the world with its objects, we cannot see the consciousness itself as “over there”.

“Just as one cannot see one's own eyes (without the help of mirrors, etc.) so one cannot in the purely egocentric perspective perceive oneself entirely as a part of the ‘physical world’ [...] it is well-nigh impossible to escape the egocentric orientation” (Feigl, 1971, p. 306).

The first-person perspective holds immense importance, yet we struggle to grasp the act of observation itself, or the observer, in the same way as we would an object.

And at the same time, we cannot abandon it. In the science of self-consciousness or the science of the subject, there is no distinction between observation and the object observed. In it, we ourselves appear in a *dual role* of both the researcher and the object of research. If we apply third-person objective descriptions here as well, then

“To see oneself in this light would mean that we have also taken the third-person perspective or observer’s standpoint [toward ourselves]” (Grahek, 1990, p. 64).

The main challenge becomes how to “reduce” subjectivity and the subject himself to something objective. How does the observing and investigating self transition into an object among other objects within a third-person description? If, as the saying goes, the Devil’s greatest trick is convincing the world that he did not exist, then the greatest err of science is believing that the subject does not as well. Just as we cannot explain vision and visible objects without the eye, we cannot explain science and scientific objects without the I. They can only be understood from *within* such a perspective.

We are tasked with uncovering the neural correlates of the pure subject – the first-person egocentric perspective or the point of view. These problems – the self-observation and self-transparency of subjectivity, ineliminability of perspective, and objectification of the subject, together with the aforementioned ones including asymmetry, comprehensibility of multifaceted mental states, distinction between understanding and explaining in the philosophy of mind, internal defining, inference and correlation of neuroscientific phenomena – put an impetus on the need for science of consciousness to transform. Either the subject – and, to that extent, the subject of science – cannot be an object of science, or science itself, so far object-oriented, must evolve in order to accommodate one more object – the subject. This would be an objective science about the subjective in a true sense. The endeavor of explaining and modeling consciousness assumes that it is possible to construct an adequate model of “living, breathing” first-person perspective. To achieve that, we ought to also model self-consciousness, encompassing self-referentiality, self-identity, and indexicality.

“[The] very notion of modeling is hopelessly harnessed to third-person perspectives, whereas consciousness or ‘qualia’ is an essentially first-person one. In other words, to be able to sketch what a model that incorporated a representation of consciousness would be like is equivalent to being able to sketch a model of subjectivity. And this we do not know how to do” (Gunderson, 1985, p. 236).

To model consciousness is to model subjectivity, and to model subjectivity is to model an egocentric subject, a first-person point of view. It is not merely a problem of programming inputs and outputs but constructing an entity (Gunderson, 1985, p. 73), and we still do not know how to do this.

On the other hand, dualistic theories like interactionism, parallelism, and epi-

phenomenalism postulate mental states as a special class of non-physical states, enforcing dualistic ontology. The problem with this, and the majority of 20th-century philosophy of mind, lies in defining mental states objectively as something existing in itself alongside physical states. The question of qualia and reducibility of mental states to brain processes in classical philosophy of mind fails to recognize the importance of perspectivity. The Janus face of mental states originates not in their duality or dual aspect; rather, it stems from the fact that they are perspectively distorted or anamorphic, observed from a specific point of view. As Grahek's insights showed, much can be explained objectively, but not everything, and certainly not the subject itself in its perspectivity. And even if it were, the subject *reducing* will never *be* the *reduced* subject. In his first-person perspective, the "living, breathing" self-conscious subject will never identify himself, personally, with a third-person, objective description valid for each subject. There is something irreproducible or unrepeatable in the condition of the thinking subject, the actuality of its existence. This becomes evident when we gaze in the mirror: the subject looking will never be the subject that is seen; there is an inherent asymmetry. Indeed, we know that the subject in the mirror *is* us, but he will never *be* us, and no amount of knowledge will alter the mode of first-person experiencing.

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