



Subjective Holism and the Problem of Consciousness¹

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Abstract

Research Article



How does unconscious matter become conscious? How does our physical part, which lacks consciousness, have such a subjective quality? This is the explanatory gap in the problem of consciousness or the hard problem of consciousness which comes from a physicalist (eliminativist physicalism) point of view. From the opposite point of view, that is, dualism, the mind-body problem has led to the problem of consciousness and the explanation of how our unconscious physical (matter) part (substance) is related to our conscious mental part (substance). If the problem of consciousness is the result of such views (eliminativism and dualism), is it possible to adopt a different perspective so that the problem does not arise at all? Or find a solution for it (maximum answer) or at least determine the right way to solve the problem (minimum answer)? The current research goes into this issue by adopting subjectivism and holism to make its subjective holism theory. Therefore, it gives a positive (maximum and minimum) answer to the above questions.

Keywords

Explanatory gap, Explanatory power, Downward Causation, Mind-Body Problem, Complex System, Emergence, Conscious Experience.

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Introduction

The problem of consciousness is the difficulty in explaining how physical properties give rise to subjective conscious experiences. It originates from two philosophical views: 1) Eliminativism removes mental states and fails to bridge the gap between our subjective-conscious and material states; 2) Due to its partitive account of human beings, substance dualism introduces the classic mind-body problem in explaining the connection between non-physical mental conscious states and the physical body.

Some philosophers have suggested that subjectivism and the first-person perspective (*FPP*) could be a way to tackle the problem of consciousness and challenge the third-person perspective. Dan Zahavi is a prominent philosopher who has written extensively on this topic (Zahavi, 2006). Other notable works on this subject include “Subjectivity and Self-Knowledge in the Philosophy of Mind” (Miguens & Preyer, 2012) and “The Self: Naturalism, Consciousness, and the First-Person Stance” (Ganeri, 2012). Searle has also argued that subjectivism is crucial in solving the problem of consciousness, as the main quality of consciousness is ontological subjectivity. According to Searle, “conscious states have a first-person mode of existence. ... each of my conscious states exists only as the state it is because it is experienced by me, the subject” (Searle, 1999, p. 42 & 73).¹ On the other hand, some philosophers have suggested that holism is a better solution to the mind-body problem. For example, Murphy’s works explore this idea in detail (Murphy, 2006, p. 10 & 73; Murphy, 2009, p. 4 & 11).

The shortcomings of eliminativism have given rise to the development of subjectivism and non-objective approaches. Similarly, the limitations of dualism have resulted in adopting a holistic approach. This approach aims to establish a connection between the physical and non-physical aspects (not parts) of human beings and resolve the mind-body problem (*MBP*) and the problem of consciousness. The authors have termed the combination of these two theories as subjective holism (*SH*).

Problem statement

The primary focus of this research is to explore how the theory of Subjective

1. In regards to subjectivism, we can explore the connection between the subjective-first point of view and phenomenology in the philosophies of Husserl and Heidegger (Zahavi, Subjectivity and the First-Person Perspective, 2007). In Husserl's phenomenology, human experiences are viewed as my experiences (Schraube, 2014, p. 735).

Holism (**SH**), which places a high emphasis on conscious experiences, deals with the problem of consciousness that faces the explanatory gap. The main research question is how **SH** addresses this problem. Sub-questions include what the explanatory gap is, what is **SH**, and its bases. To answer the main research question, it's crucial to first comprehend what **SH** means.

Subjective holism

SH is a theory that attempts to use the positive aspects of both holism and subjectivism to solve problems or at least provide a way to address them. **SH** is based on holistic principles, which include downward causation, complexity, and high-level emergent properties (**HLEPs**) in conscious experiences (**CEs**). It also uses the basics of subjectivism, mainly **FPP**, the insiderness, and the uniqueness of **CEs**. Additionally, **SH** complies with methodological naturalism and non-eliminativism. To understand **SH** better, we can compare it with dualism and eliminativism:

- **SH** differs from dualism because it views humans as a whole, rather than two separate parts.
- **SH** differs from eliminativism because it does not eliminate subjective conscious mental states.

SH is derived from the combination of four bases, taking into account the differences mentioned.

Holism and high-level emergent properties

The concept of holism is rooted in Aristotle's formal cause (Aristotle, 2014), N. Murphy's research on holistic approaches to human nature (aspective account of human nature)¹ (Murphy, 2006), the Quine-Duhem thesis (Quine, 1951; Duhem, 1954), the focus on the structure and the whole rather than the parts of society in Durkheim's functionalism in sociology (Zahle, 2016; Britannica, 2010), and the *Gestalt* theory in psychology (Britannica, 2022) and holistic nursing in medicine (holism, n.d.), the Gestalt theory in psychology (Britannica, 2022), and holistic nursing in medicine (holism, n.d.).

As per Aristotle's definition in his *Metaphysics*, a holist believes that the whole is greater than the sum of its parts (Ralston, 2011). This is because some properties cannot be explained by or reduced to its parts alone, making

1. The term *aspective* is taken from Murphy's work: (Murphy, *Bodies and Souls, or Spirited Bodies?*, 2006, p. 10 & 73).

the whole irreducible. Holism focuses on (1) the whole itself and separates it ontologically from its parts, and (2) the effects of the whole on the part (Freeman, 2005, p. 154). The whole exists with a rational necessity that comes from its explanatory role and power. Therefore, holism is an aspective account of human nature and is contrary to partitive-objective approaches.

HLEP of a whole are closely related to explaining that being. For example, the flight is a **HLEP** for an airplane. All other properties are low-level properties. Flight is the emergent property of the airplane that is derived from the authorized structure of the whole. We can say that flight is the **HLEP** of the airplane and call it the basic/primary property of the whole. However, when it comes to human beings, it is unclear what the **HLEP** might be. Is it the conscious experience?

An emergent property is a feature of a system, a whole, that cannot be ontologically reduced to lower levels (O'Connor, 2021). O'Connor establishes three kinds of human emergent properties: (a) conscious awareness and its unity; (b) the qualitative and intentional character of mental states; and (c) conscious will and agency. These properties are mainly related to consciousness and its mental contents like intentionality and human will and agency. Therefore, to study human **HLEPs** and find human nature, we must go with the hard problem of consciousness (**HPC**), which cannot be solved and explained by the objective-partitive approach but by a holistic viewpoint.

Holism and complex system

Human beings have two types of complexity: ontological complexity and epistemological complexity. Ontological complexity refers to the structure of human beings, including the function of organs, the relationship between neurons in the nervous system, etc. On the other hand, epistemological complexity is about understanding emergent properties of humans, like being alive and having consciousness. In this paper, we focus on epistemological complexity since it's an epistemological problem. The human being is a complex system (**CS**) that has epistemological complexity on **HPC**.

Holism and downward causation

When considering a human as a whole and as a **CS**, upward causation is not efficient in explaining it. Upward causation has a scientific approach and focuses on the parts of the system. However, some **HLEPs** like the flight, **CEs**, etc. cannot be explained by upward causation alone. (Chalmers, Facing Up to the Problem of Consciousness, 1995). Therefore, we need another kind

of causation, which is downward causation. Downward causation considers the higher levels of a being more than the lower levels. Therefore, those attributes have to be explained and justified by downward causation.

The authors propose that *HLEPs* should be understood as emergent properties of the human system as a whole and studied using a holistic approach that takes into account interactions between different parts of the system. This approach, known as holism, recognizes the importance of *HLEPs* and emphasizes the need to study the human system from a top-down perspective. By doing so, we can better understand the *MBP*, *HPC*, and other aspects of the human experience that cannot be explained by reductionism alone.

Holism, or the aspective account of human nature, refers to the concept of a whole or *CS*. This *CS* is ontologically and epistemologically more important than its parts and possesses *HLEPs* that cannot be explained by the parts themselves. The aspective account of holism is a kind of subjective approach because it contradicts the objective-partitive account.

In situations where *HPC* arises, such as when eating a chocolate ice cream, if one were to ask oneself who is eating the ice cream, the answer would be “I am eating it.” The “I” here is both a whole and a complex system, and it is also the subject of eating. Therefore, the “I” is the subject and the whole at the same time.

A question closely related to the main research question would be “Are the subjective *CEs* of a whole, a *CS*, the *HLEP* of that whole?” If we can prove the answer to be positive, it means that consciousness, as an emergent property of that whole, does not need to be explained. The next part will explain the subjective part of the *SH*.

Subjectivism

Subjectivism, as used here, refers to the explanation of the “what-it-is-like” (*WIL*) sense. Nagel Chalmers’s “what is it like” (*WIL*) concept heavily influences this (Nagel, 1974)& (Chalmers, Facing Up to the Problem of Consciousness, 1995). Nagel explains that to understand one’s *WIL* sense, we must see it subjectively with *FPP* (First-Person Perspective) and within the qualia of its experience. He calls this the “subjective character of experience” (Nagel, 1974, pp. 436-437, 442 & 449). As Nagel’s “Bat” is frequently employed to critique physicalism and illusionism ¹, Chalmers refers to

1. In the tradition of contemporary analytical philosophy, Nagel’s “Bat” is primarily utilized to challenge physicalism, particularly eliminativism and illusionism. This approach has faced

it as “what it is to be a conscious subject” (Chalmers, 2013, p. 4) or the “phenomenal properties” or *WIL* properties (Chalmers, 2018, p. 6); or what Zahavi calls “*WIL* sense.” (Zahavi, 2007) *FPP* and insideness give the subject a unique and exclusive experience, which is experienced only by the subject and hence referred to as “I.”

Zahavi believes that subjectivism is an explanandum for solving *HPC*. He refers to Sydney Shoemaker, who shows that it is essential for a philosophical theory to distinguish between a subject’s conscious experience (a subject’s mental state) and its objective form. (Zahavi, 2007, pp. 66-67) We experience it differently from the way others experience it, and it is a conscious and lively experience:

A satisfying account of consciousness should respect and acknowledge this epistemic asymmetry. It must take the first-personal or subjective givenness of consciousness seriously since an important and nonnegligible feature of consciousness is the way in which it is experienced by the subject. (Zahavi, 2007, p. 67)

When we experience the coldness, sweetness, and joy of eating chocolate ice cream, there are two aspects to our conscious experience:

- 1- The first aspect is *subjective*. This means that what we consciously experience is unique to us and cannot be observed by anyone else. For example, only I can experience the coldness, sweetness, and joy of the ice cream in my mind.
- 2- The second aspect is *objective*. This means that a scientist can observe the chemical reactions in my brain that occur when I taste the ice cream.

We have something called *FPP* in our conscious states. This refers to the difference between ontological subjectivity and ontological objectivity (Schraube, 2014, p. 734). When we taste the chocolate ice cream, we consciously experience the coldness, sweetness, and joy with our *FPP*. First-person states always require a subject to exist and be explained, but third-person states do not. Thus, *as CE is a first-person state, we must use subjective FPP to understand HPC*. Psychological experiences such as feelings, thinking, and acting exist *only* in the mind of an individual. They are subjective and unique to each person (Schraube, 2014, p. 734). This

criticism, notably in reference to Robert Van Gulick’s recent article (Van Gulick, 2024). For further insight into the illusionism discussed here, you may also want to review (Abdollahi, & Nasiri, 2023b)

subjectivity gives two qualia to our experiences – *insideness* and *uniqueness*. When we introspect ourselves, we find specific perceptions of heat or cold, love or hatred, pain or pleasure,¹ which are unique to us. No one else can experience our thoughts and feelings in the same way that we do.² This subjectivity distinguishes our experiences from objective things like my pet, this laptop, and that tree, whose existence does not depend on being experienced by a conscious entity.³

All of these subjective features such as subjectivity, *FPP*, and insideness, contribute to the uniqueness of my *CEs*. This uniqueness is similar to what Merleau-Ponty describes as “Cogito”: “If the subject’s only experience is the one I obtain by coinciding with it ... then my *Cogito is*, in principle, *unique* – no one else could participate in it” (Merleau-Ponty, 2012, p. 391). When I eat that ice cream, three types of uniqueness refer solely to me: my *CE* of its coldness, sweetness, and joy (U1) my accessibility to that *CE* (Merleau-Ponty’s Cogito) (U2), and the unity between me and my *CE* (U3). These three types of uniqueness together make me a unique whole that sets me apart from others.

Subjectivism is a theory that describes human experience through three qualities: (1) *FPP*, (2) insideness, and (3) uniqueness. In contrast, objectivism includes (1[^]) third-person perspective, (2[^]) outsideness, and (3[^]) commonness. Subjectivism is often used to describe the opposite of objectivism.

Methodological naturalism; dynamicity of SH

The third foundation of *SH* is methodological naturalism. Unlike ontological naturalism, which eliminates non-scientific contents, methodological naturalism is a strategy for scientific investigation (Halvorson, 2016, pp. 136, 142 & 147) that does not reject any method or data as long as they do not conflict with basic facts. According to Searle, these basic facts include the atomic theory of matter and the evolutionary theory of biology (Searle, Freedom and Neurobiology, 2007, p. 4). Methodological naturalism allows

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1. Hume argues that when we think about ourselves, we only find specific perceptions such as “heat or cold, love or hatred, pain or pleasure”(Hume, 2007, p. 165).
 2. It’s important to note that contemporary perspectives on Hume’s empiricism have evolved, leading to a shift in previous interpretations of his work. This includes a reevaluation of Hume’s approaches to the philosophy of religion. For further insights on this matter, refer to the following publication: (Abdollahi & Nasiri, 2023a).
 3. When I consider this situation to be an intentional one and ask who has this CE, the subject of this question and the object are the same, ME. This is a unique subject-object united situation that only happens to me. We call this unity situation “*objectizing myself.*”

SH to have a dynamic approach to problems like *HPC* and accept new scientific findings. This enables *SH* not only to remain compatible with the atomic theory of matter and the evolutionary theory of biology but also to find new solutions to the *HPC*.

Non-eliminativism

Non-eliminativism is the conclusion of holism, subjectivism, and methodological naturalism. Holism is a perspective on humans that considers downward causation (not upward) and explains every mental state, like *CE* of the ice cream, by downward causation. Therefore, mental states are considered a first-person state of the whole, and they are not eliminated. Objectivism and third-person perspective eliminate all non-physical and mental states, but subjectivism and *FPP* accept subjective-intentional states (like all of my *CEs*). As we mentioned earlier, methodological naturalism, in contrast with ontological naturalism, is not an eliminative account, so all the bases of *SH* do not have an eliminative approach to the human.

What subjective holism is

Considering the differences between *SH* with eliminativism and (substance) dualism, *SH* is obtained by adding those four bases. In this case, how will *SH* face the problem of consciousness? In the following, we will add this non-eliminative account to the *HPC* to find the conclusions. Before that, we talk a little about this issue, focusing on its explanatory gap.

Why is the problem of consciousness so hard?

The problem of consciousness arises when we try to explain how subjective conscious mental states with unique qualia arise from objective non-conscious physical states. This is where the “meta-problem” of consciousness, *HPC*, comes in (Chalmers, 1995). While the easy problem can be solved through a scientific-objective approach, *HPC* lies beyond objective methods, and a new solution is needed. The importance of *HPC* also lies in its relation to the *MBP*. According to Nagel, “Consciousness is what makes the mind-body problem really intractable” (Nagel, 1974, p. 435). Since *HPC* is related to *MBP*, and understanding *MBP* is vital to understanding human nature, *HPC* is essential to understanding human nature.¹ Chalmers suggests that the main question is,

1. This view that consciousness is a topic significantly related to the problem of human nature and the *MBP*, is also approved by C. Koch who believes that visual consciousness is a tipping point in *MBP* (Crick & Koch, 1992, pp. 158-160).

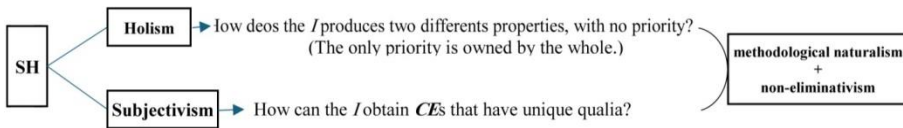
“What is it like to be a conscious subject?” (Chalmers, 2013, p. 4). Therefore, the correct answer to *HPC* must take into account the subject’s conscious experience, which is non-objective.

Can conscious experience be regarded as the high-level and emergent property of a human being?

If we refer back to the Aristotelian definition of humans as “rational animals”, one could argue that consciousness, which is the rational aspect of our being, is our *HLEP*. Our *CE* as a *HLEP* is our ability to learn through cognitive processes that involve trial and error and is based on the theory of evolution (Beer, 1995), which states that we tend to repeat behaviors that lead to pleasant consequences and avoid those that lead to unpleasant ones. At its deepest level, consciousness is intentionality, which means that, in a conscious situation, I experience something consciously and I am aware that I am the one having this experience. Therefore, I am the whole entity that possesses some *CEs* as my *HLEP*.

Subjective holism and the hard problem of consciousness

In *SH*, the subject of *CEs* is “the I”¹, a whole with different aspects rather than parts. *SH* is:



The explanatory gap of *HPC* is based on an objective-partitive view of human nature. Therefore, to fill it, we must reject that view and instead adopt a subjective and holistic approach to human nature and its *CEs*. This means that since *CEs* are inherently subjective, any solution must consider a subjective and phenomenological approach that takes into account the *FPP* and unique inside qualia of *CEs*.

On the one hand, humans are more intuitively acceptable as a whole, rather than two different parts. This is because we see ourselves as a single entity, rather than two separate substances or parts. Therefore, when dealing with problems such as *HPC*, it is easier to explain the connection between two different aspects using downward causation, rather than two separate parts

1. To distinguish I here from me, the authors mean that I can objectify myself, it is written as “the I”.

using upward causation. This is because the mental and physical states are the properties of a whole, a conscious subject. *HPC* then becomes a matter of understanding how these properties are derived from this conscious subject or how this conscious subject produces two different kinds of properties, which are subjective and objective consciousness. Neither of these properties has priority, as the priority is owned by the whole, the *CS*.

Why choose a holism and aspective account over a partitive account? The latter leads to problems in connecting material and non-material parts. A change of perspective is necessary to overcome this, either through aspective or holism. As for subjectivism, it's necessary because the origin of *HPC* is objective and *TPP^I*-based. Therefore, we must be subjective. The *HPC* is related to the problem of connection, which is better explained by holism. It also has the problem of subjective consciousness, which, with subjectivism, must overcome the origin of the problem, that is, objectivism. A solution to the problem of consciousness requires a combination of holism and subjectivism, which we have named subjective holism. This combination is shown in the "*I*" who is the subject and the whole at the same time.

Therefore, with *SH*, my *CE* is my subjective *CE*. If we take a holistic and subjective approach to human nature, *HPC* will change to become a question of how this "*I*", with some aspects (not parts), obtains these qualia. By using this approach, we consider both methodological naturalism and non-eliminativism when searching for answers.

Results

Regarding the main research question, what are *SH* solutions to the *HPC*, and what are the advantages and disadvantages of using *SH*? If *SH* can successfully incorporate subjectivism, holism, methodological naturalism, and *NE*, then we can leverage the benefits of each without being weighed down by their weaknesses. Some of the advantages of this synthetic approach include more explanatory power and compatibility with our intuitions.

Subjective holism is compatible with my intuitions

Why is intuition important? It represents our subjective *CE*. Let's go back to the moment of the ice cream experience and consider the following questions based on intuition:

1. Third-person perspective.

No.	Question	Intuitional Answer	Compatibility of SH with intuition
1	“Who is eating this ice cream?”	I	Compatible. “I am eating it as a whole.”
2	“Who experiences the coldness, sweetness, and joy of ice cream?”	I	Compatible. “I experience it subjectively and consciously.”
3	“Are our intuitions and the atomic theory of matter and the evolutionary theory of biology in contradiction?”	“No, even my intuition of the moment of eating ice cream could be better explained by atomic theory of matter and the evolutionary theory of biology.”	Compatible. Previous answer.
4	“Does my intuition eliminate mental states like self, mind, etc.?”	“No, my intuition is a presumption and does not eliminate these mental states.”	Compatible. Previous answer.

Table 1: SH and My Intuition

According to Table 1, my intuition of *CEs* is compatible with all of the bases of *SH*, and in some cases, *SH* helps me to have a better explanation.

Subjective holism has good explanatory power

The main opponents of *SH* are eliminativism and dualism. Eliminativism fails to address the problem of subjective consciousness, while dualism struggles with the relationship between material and immaterial substance. *SH*, by adopting subjectivism and holism, overcomes these challenges and does not have the same explanatory gaps.

According to methodological naturalism, the atomic theory of matter, and the evolutionary theory of biology, *SH* can use the latest scientific findings to explain *HPC*, *MBP*, and the problem of human nature without scientific limitations. Non-eliminativism does not eliminate concepts like self, which play a narrative and explanatory role in filling the gaps in these problems. Non-eliminativism aligns with Dennett’s idea of the center of narrative gravity (Dennett, 1992) and incorporates non-physical concepts to help solve the *HPC*.

Solipsism and subjective holism

The challenge of intersubjectivity in subjective theories like *SH* is similar to the difficulty of understanding other people’s experiences. Searle argues that scientific advancements make it hard to maintain skepticism about the external world and other minds. He believes this skepticism has lost its philosophical significance (Searle, 2007, pp. 26-29). Merleau-Ponty argues for inter-consciousness, stating that if one has absolute consciousness of oneself, then the plurality of consciousness is impossible” (Merleau-Ponty, 2012, p. 391).

In support of Searle and Merleau-Ponty, science suggests that empathy can overcome skepticism. Empathy directs one toward another person's experiences (Zahavi, 2007, p. 73) and activates the brain's prefrontal cortex (Light, et al., 2009, p. 1210). This suggests that when person A experiences pain (α pain/conscious state), person B also experiences pain (β pain/conscious state). An example of intersubjectivity is when watching horror movies. When I see a scene in the *Saw* movie where a woman is cutting her fingers with a slow knife (α), I also experience and feel pain (β). So, based on (1) Merleau-Ponty's inter-consciousness, (2) Searle's basic facts, and (3) our ability of empathy, we can overcome solipsism.

Conclusion

According to subjective holism, I am a complex system (whole) with conscious experience that is a high-level emergent property. This explanation helps bridge the explanatory gap of the hard problem of consciousness. Describing my conscious experiences requires both holism and subjectivism:

1- Holistically, consciousness should be explained as an emergent property of the complex system with downward and first-person causation of the whole.

2- A subjective perspective is necessary because these qualities (conscious experiences) are inherently subjective and have an ontological subjectivity that is far from ontological objectivity.

Therefore, the connection between holism and subjectivism lies in the causation of the first person for the whole, which should be considered as the primary causation in the hard problem of consciousness. As previously mentioned,

1) **SH** refers to the rules and principles that we need to consider when approaching the **HPC**. The principles of **SH** are as follows:

- a. Subjectivism (**FPP** + insiderness + uniqueness) of **CEs**;
- b. Holism (**CS** + downward causation + Emergence);
- c. Methodological naturalism means non-contradiction within the atomic theory of matter and the evolutionary theory of biology;
- d. Non-eliminativism means mental states should not be eliminated.

2) **SH** outlines what we should or should not consider when attempting to solve the **HPC**.

3) **SH** is a dynamic, subjective, holistic pattern for approaching the **HPC**. This means that due to the relationship between **HPC** and **MBP** with **PHN**, every scientific or non-scientific finding and new data from each one influences the others.

The claim of solving the *HPC* is a very significant assertion, and we do not make such a claim. However, we assert that the solution to the problem lies in a holistic and subjective approach.

Conflict of Interests

The authors have no competing interests.

References

- Abdollahi, S., & Nasiri, M. (2023a). Hume's fideism; towards his mysticism. *Journal of Philosophical Theological Research*, 25(1), 29-52.
<https://doi.org/10.22091/jptr.2022.8571.2765>
- Abdollahi, S., & Nasiri, M. (2023b). Illusionism on mind problem. *Journal of Philosophical Investigations*, 17(43), 364-383.
<https://doi.org/10.22034/jpiut.2022.51469.3202>
- Andrews, K., & Monsó, S. (2021). Animal cognition (Spring 2021 Edition). (E. N. Zalta, Ed.). *The Stanford encyclopedia of philosophy*.
URL = <<https://plato.stanford.edu/archives/spr2021/entries/cognition-animal/>>
- Aristotle. (2014). *Cambridge texts in the history of philosophy: Aristotle: Nicomachean ethics* (vol. 2). (R. Crisp, Ed.). Cambridge University Press.
- Beer, C. (1995). Trial and error in the evolution of cognition. *Behavioral Processes*, 35(1-3), 215-224. [https://doi.org/10.1016/0376-6357\(95\)00059-3](https://doi.org/10.1016/0376-6357(95)00059-3)
- Britannica, T. (2010, August 4). *Holism*. Retrieved from Encyclopedia Britannica: <https://www.britannica.com/topic/holism>
- Britannica, T. (2022, Dec. 2). *Gestalt psychology*. Retrieved from Encyclopedia Britannica: <https://www.britannica.com/science/Gestalt-psychology>
- Chalmers, D. (1995). Facing up to the problem of consciousness. *Journal of Consciousness Studies*, 2(3), 200-219.
- Chalmers, D. (2013). Panpsychism and panprotopsychism. *Amherst Lecture in Philosophy*, 8, 1-35. Retrieved from:
<https://www.amherstlecture.org/chalmers2013/>
- Chalmers, D. (2018). The meta-problem of consciousness. *Journal of Consciousness Studies*, 25(9-10), 6-61.
- Crick, F., & Koch, C. (1992). The problem of consciousness. *Scientific American*, 267(3), 152-60. Retrieved from:
<https://www.scientificamerican.com/article/the-problem-of-consciousness/>
- Dennett, D. (1992). The self as a center of narrative gravity. In F. Kessel, P. Cole, & D. Johnson, *Self and consciousness*. Erlbaum.
- Duhem, P. M. (1954). *The aim and structure of physical theory*. Princeton University Press.
- Freeman, J. (2005). Towards a definition of holism. *British Journal of General Practice*, 55(511), 154-155.

- Ganeri, J. (2012). *The self*. Oxford University Press.
- Halvorson, H. (2016). Why methodological naturalism? In K. Clark, *The Blackwell companion to naturalism* (pp. 136-149). John Wiley & Sons.
- Holden, C. (2004, Feb 19). *I feel your pain, really*.
<https://doi.org/10.1126/article.34745>
- Holism*. (n.d.). Retrieved from: dictionary.com:
<https://www.dictionary.com/browse/holism#:~:text=Definition%20of%20holism&text=Philosophy.,mere%20sum%20of%20their%20parts>.
- Hume, D. (2007). *A treatise of human nature*. (D. Norton, & M. Norton, Eds.). Oxford University Press.
- Levine, J. (1983). Materialism and qualia: the explanatory gap. *Pacific Philosophical Quarterly*, 64, 354-361.
- Merleau-Ponty, M. (2012). *Phenomenology of perception*. (D. Landes, Trans.). Routledge.
- Miguens, S., & Preyer, G. (2012). *Consciousness and subjectivity*. Transactions Books.
- Murphy, N. (2006). *Bodies and souls, or spirited bodies?* Cambridge University Press.
- Murphy, N. (2009). Introduction and overview. In N. Murphy, G. Ellis, & T. O'Connor, *Downward causation and the neurobiology of free will*. Springer.
- Nagel, T. (1974). What is it like to be a bat? *The Philosophical Review*, 83(4), 435-450. <https://doi.org/10.2307/2183914>
- O'Connor, T. (Winter 2021). Emergent properties. In E. Zalta (Ed.), *The Stanford encyclopedia of philosophy*. Retrieved from:
<https://plato.stanford.edu/entries/properties-emergent/>
- Piñeros, G., Juan, S., & Tenenbaum, S. (2023, Spring). *Action*. Retrieved from: *The Stanford encyclopedia of philosophy*.
<https://plato.stanford.edu/entries/action/#pagetopright>
- Quine, W. (1951). Two dogmas of empiricism. *Philosophical Review*, 60(1), 20-43.
- Ralston, S. (2011, August 15). Holism. *Encyclopedia of political thought*.
<http://dx.doi.org/10.2139/ssrn.1910274>.
- Schraube, E. (2014). First-person perspective. In T. Teo, *Encyclopedia of critical psychology* (pp. 733-736). Springer.
- Searle, J. (1999). *Mind, language and society*. Basic Books.
- Searle, J. (2007). *Freedom and neurobiology*. Columbia University Press.
- Van Gulick, R. (2024). Consciousness, subjective facts and physicalism – 50 years since Nagel's bat. *Journal of Philosophical Theological Research*, 26(1), 5-20.
<https://doi.org/10.22091/jptr.2024.10424.3021>.

Zahavi, D. (2006). *Subjectivity and selfhood: investigating the first-person perspective*. The MIT Press, A Bradford Book.

Zahavi, D. (2007). Subjectivity and the first-person perspective. *Southern Journal of Philosophy*, 45(S1), 66-84.

Zahle, J. (2016, Mar 21). Methodological holism in the social sciences. Retrieved from *The Stanford encyclopedia of philosophy*.
<https://plato.stanford.edu/entries/holism-social/>