

Chapter 5

The Reductive Model of Mind Explains the Human and Animal Psyche

ABSTRACT

In this chapter the relationship of consciousness to intelligence is analyzed. The effectiveness of the presented model for beings with different degrees of consciousness is verified. We present how our model relates to such mental processes as permanent and short-term remembering, intensive intentional recall, thoughts wandering, planning, and making decisions, focusing of attention, imagination, intuition, sleep, and subconsciousness. The most distinctive feature of humans against other animals is the ability to use symbolic language. The authors present biophysical basics of language creation. They point out that the structure of knowledge enchanted in semantics is consistent with the hierarchy of representations of mental concepts that create it. They discuss the usefulness of a language for both logical analysis of complex problems with a high degree of abstraction, and the ability to express the subtlest feelings. The subconscious raises enormous and widespread interest, why is this? Subconsciousness directs all our activities, but it does not manifest itself and it is hard to explain, partly because we cannot consciously observe how it works. Yet, in their view, it should be easier to understand than full consciousness. It only serves the purpose of proposing various options. In the subconscious mind these options are getting ready to be selected for consideration by a conscious mind. But sometimes they direct our reaction before the conscious mind takes over full control. In this chapter, the authors try to explain what the subconscious is and how it relates to consciousness. The subconscious is a huge memory storage. It contains all the information resulting from our experiences removed from the area of associations reaching consciousness. Subconscious memories can be inhibited by feedback from unpleasant feelings whose transmission to consciousness is blocked. In this way, they become forgotten episodes that subconsciously affect our actions. Realization of life goals can be considered the essence of existence. This is the basis of our worldview and the main content of consciousness. But our psyche has states much more sophisticated and so important that they have become the subject of our dreams, imaginations, and the highest desire. Remember that human beings, as well as highly organized animals, display many behaviors that are not controlled by conscious mind. Evolution has shaped us to become emotional beings. Emotions significantly affect our behavior, determining the subjective values and quality of perceived objects and

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phenomena. So the authors include emotions as a significant component of their model. They find that the presented model of a motivated emotional mind can explain the formation of various emotions, feelings, and high mental states identified by modern psychology and psychiatry. They postulate that mental states observed in oneself from a first-person perspective are epiphenomenons of physical processes in the brain. It is propounded out that the presented model of the functioning of the conscious mind is indeed a reductive model.

CONSCIOUSNESS AND INTELLIGENCE

In the previous chapter, we made a distinction between intelligence and consciousness. These terms seem to refer to similar mental properties. If a being has a high degree of consciousness, we suppose it must be very intelligent. Conversely, intelligent people should probably show a high degree of consciousness. This common belief indicates that these concepts are interrelated in some way. However, they relate to slightly different spheres. Intelligence is related to action. An organism or artificial autonomous system can behave intelligently or quite stupidly, unintelligently. Intelligent behavior leads to the achievement of goals formulated before the system or that it sets itself. These goals self-formulated by organisms mean adaptation to the environment, optimal use of its resources, and maximum use of the body's capabilities. Effectiveness in achieving a goal means surviving to give oneself a chance to continue and acting. The implementation of such tasks in the case of beings equipped with intrinsic intentionality requires at least a minimum of consciousness. But the high intelligence demonstrated in achieving the goal is not the same as the degree of consciousness. You can be fully conscious of the situation and still perform careless and unintelligent actions. The opposite situation may also occur: problems can be barely noticed, but actions can be very effective. Intelligence is the ability to learn how to perform effective action.

So what is consciousness? Consciousness is a temporary state of mind. We may be conscious of our feelings, perceptions resulting from information provided by the senses, and understanding of concepts that reach the mind or of which we are reminded. Depending on the content of consciousness, we are dealing with the types of consciousness discussed in chapter 1. If we are conscious of qualia, then we are dealing with perceptual consciousness; if these are abstract concepts, then consciousness of space, place, or even wider self-consciousness is manifested. Perceptual consciousness does not require too high intelligence, but self-consciousness or reflective consciousness requires the degree of intelligence necessary to understand the relationship between concepts and the ability to even elementally process information occupying the mind at a given moment. If we are defining consciousness as a state of mind at a given moment, what will happen with our awareness in the next moment? Nothing special. We may lose consciousness and become completely unconscious, but no one will think that we have lost our intelligence. Thinking potential is usually maintained despite unconsciousness. Even if you can't stay awake for a long time, be it in your sleep or as a result of severe injuries, poisoning, drug use, or intoxication, your intellectual abilities, although temporarily weakened, can come back when your consciousness returns. Intellectual potential usually does not disappear in such situations.

There is another factor in the continuity of our consciousness. This factor is memory. Thanks to memory, after we've been awakened, we can restore conscious processes referring to previous experiences. Thanks to memory, we can remember, after waking up, who we are. Our experience is not lost, and knowledge acquired through long-term learning does not disappear. The effort and risk of learning and the struggles to date are not in vain. Our memory models of reality allow us to maintain not only a high degree of consciousness but also our identity.

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