

Chapter 9

Epilogue

ABSTRACT

The future will most likely bring machines with artificial conscious minds, that at some point will be more intelligent than we are. But their minds will be also different than ours. Will we be able to understand them? Will they understand us? A sense of consciousness is a simple, direct feeling, so it is a quale! This is a subjective, first-person experience. We will never be able to describe it in a strictly symbolic language and even less so in formal one such as mathematics, geometry, or logic. Reflecting on how we can understand our own consciousness, we must consider the foundation for understanding. A sense of understanding requires the compatibility of a stimulant signal with activated cognitive memory fields. The feeling of consciousness is related to every act of recognition and the attribute of reflective consciousness is to realize that we are conscious. The essence of consciousness is to build a model of reality, to define/understand its place in this reality, and to feel emotion and satisfaction arising from that fact. The mind understands what can be “good” for it in the shorter and longer term. The formulation of the long-term goal of existence constitutes a sense of self-existence and, consequently, the meaning of the world as a tool for fulfilling one’s mission in this world. It is astonishing that if we ask about the purpose and meaning of the matter, we must admit that no such purpose exists, if there is no consciousness for which we could formulate such a purpose. Thus, the meaning and purpose of the existence of matter is the emergence of consciousness. This sense arises at the moment when consciousness arises. The presented model of a motivated emotional mind explains the main features of the human psyche. It explains how reflective and phenomenal consciousness are created, how the mind formulates the meaning and purpose of a person’s existence and the meaning of the world around him, how he obtains his free will, and how he can effectively act for his own good. It explains how the need for understanding, harmony, and beauty can create art, ethics, and goodness, how emotions directing the mind can unleash feelings of empathy and love. It also explains that to fulfill these functions, to learn everything that is good and noble but also what is evil and immoral, it is necessary to have a body able to influence the environment and the mind to reflect on it.

HOW FAR CAN WE UNDERSTAND OURSELVES?

We often ask ourselves: How can we understand our own consciousness? We hope that this book will help to explain how the consciousness can arise in tangible, natural beings as well as artificial ones. But do we fully understand it? Can we comprehend its possibilities and limitations? Can we describe it mathematically?

In part III, we tried to describe our efforts to build models of conscious machines. Building a model of anything means understanding the essence of it. However, the depth and detail of this understanding depends on the specificity of the phenomenon or object. Full understanding means that you can build a model exactly like the original. So do we build machines that imitate our minds? Yes, and no. For the attentive reader, it is clear that the mind is a very personal matter. Its character depends not only on the construction of the brain, which is its substrate, but also on the history of its formation, on learning, and on life experiences. In examining the mind of a man, we cannot be sure that the mind of his twin brother has the same qualities. Probably it does not. The mind of the artificial machine will be even more different than the human or animal minds of biological brains. However, the efforts of the designers of smart self-conscious robots do not aim to build a system that accurately replicates some particular mind, animal or human. We have a conviction that if we understand how consciousness is born and can build a machine with a conscious mind, we will surely continue to develop it. Further generations of these machines will be created at a pace that may be determined by some new Moore law.

One day, the level of consciousness and the correlated level of intelligence will reach the level available to the human brain. It is absolutely unlikely that at this moment of development, further progress will stop. So every next model will exceed the possibilities of the human mind. Development will go through faster, avalanched acceleration if these hyperintelligent creations are directed to improve themselves and to design the next, ever more perfect generations. This will force us to familiarize ourselves with cognitive processes in their minds. If we can't handle it ourselves, we might get help from our artificial, superintelligent successors.

The considerations outlined in the previous sections do not touch a significant problem of understanding what consciousness is. Perhaps if, even after reading this book, we better understand how consciousness can arise in specially organized neural networks, many readers will still ask themselves questions: How does it happen that we feel conscious? Why is it so difficult to define and describe this feeling? The answer is obvious when we recall all the conditions of the manifestation of consciousness described in this book. A sense of consciousness is a simple, direct feeling. Such direct sensations are called qualia. Yes, feeling your own consciousness is a quale! This is a subjective, first-person experience. We will never be able to describe it in a strictly symbolic language and even less so in formal one such as mathematics, geometry, or logic. We can only try to describe our feelings in the language of poetry using comparisons, metaphors, and analogies. We will never find out if another unknown being we have encountered is really conscious of anything in the sense of how we feel it ourselves. The assessment of the assurances regarding the primary subjective impressions from a tertiary perspective will not be possible. That is why it is so difficult to tell whether other people, animals, robots, or newcomers from other planets are conscious or whether we are only victims of elusive illusions.

Of course, the phenomenon of consciousness has its objective side, which can be identified from both the first- and third-person perspectives. We need to distinguish the sense, the content, and the concept of consciousness shaped by reflections over our cognitive abilities. If the subject responds to stimuli from the environment and intelligently adjusts its behavior to the signals it receives, it smartly

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