

## Anthropology of the Brain

In this unique exploration of the mysteries of the human brain, Roger Bartra shows that consciousness is a phenomenon that occurs not only in the mind but also in an external network, a symbolic system. He argues that the symbolic systems created by humans in art, language, in cooking, or in dress, are the key to understanding human consciousness. Placing culture at the centre of his analysis, Bartra brings together findings from anthropology and cognitive science and offers an original vision of the continuity between the brain and its symbolic environment. The book is essential reading for neurologists, cognitive scientists, and anthropologists alike.

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# Anthropology of the Brain

*Consciousness, Culture, and Free Will*

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Roger Bartra

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## Preface

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In this book I try to explain the mystery of consciousness. Explaining the enigma is not the same thing as *solving* it. I want to tap into, to put forward from the anthropologist's viewpoint, the extraordinary advances in the sciences dedicated to exploring the brain. Neurologists and psychiatrists are convinced that mental processes reside in the brain. My intention is to take an anthropological journey inside the cranium in search of consciousness, or at least of the traces it has left imprinted on the neuronal networks. What can an anthropologist discover in the brain? Identity is one of anthropology's favorite and most studied topics, a condition usually seen as a host of symbols and cultural processes that centers around the definition of an "I," a self that is essentially expressed as an individual fact, but that acquires a variety of collective dimensions: ethnic, social, religious, national, sexual, and many other identities. What identity is there inside the brain? Its principal expression is consciousness.

So that my objective is clear to the reader from the start, I wish to explain my understanding of consciousness – not with a strict definition, but rather by referring to the perspective of a philosopher who, to my way of thinking, is the founder of modern thought on this subject. I am not referring to Descartes. Scientists usually turn to him more to criticize his dualism than to support his ideas: by using him as a reference they remain trapped in the coordinates he established about the relation between the body and the soul. Actually, Descartes used the Latin term *conscientia* very few times. I intend to bring John Locke to my aid. He audaciously used the concept to put forward an idea that provoked intense discussion for a number of decades. I believe his idea is still useful for identifying and circumscribing the problem of consciousness.

When he added a new chapter on consciousness to the second 1694 edition of his *Essay concerning human understanding*, Locke profoundly perturbed the moral and religious traditions of his day.<sup>1</sup> He rejected the orthodox religious view that personal identity is a permanent substance. For Locke the self is not defined by the identity of substances, whether they are divine, material, or infinite: the self is defined by consciousness. Personal identity is based on having consciousness,

<sup>1</sup> The book to read about these repercussions is *Locke and the Scriblerians* by Christopher Fox.

something inseparable from thought: “it being impossible for any one to perceive, without perceiving, that he does perceive.”<sup>2</sup> Locke does not conceive of consciousness as an immaterial thinking substance and concludes that the soul does not define identity.<sup>3</sup> Less than half a century after the publication of *The passions of the soul* (1649) by Descartes, Locke states that consciousness is the appropriation of things and acts that have to do with the “I” and that are attributable to this self.<sup>4</sup> The self is situated in the identity of a *possession of consciousness*, of a way of behaving.<sup>5</sup> For Locke the word person is a “forensic” term that implies forum: the “I” is responsible, it recognizes acts and attributes them to itself. The soul, in contrast, is indifferent to material surroundings and independent of all matter.<sup>6</sup>

When discussing consciousness, it seems much more stimulating to use Locke as a starting point rather than Descartes. Consciousness can be understood as a series of individual human acts in the context of a social forum that involve a relation between recognition and appropriation of facts and ideas for which the self is responsible. The way in which Locke sees consciousness is closer to the etymological roots of the word: consciousness comes from knowing *with* others. It is socially shared knowledge.<sup>7</sup>

In their desire to place the problem on a level that can be explored scientifically, many neurobiologists have reduced consciousness to a synonym for the fact of noticing, realizing or perceiving the environment. Christof Koch does this in his very useful panoramic summary of the advances in the neurosciences on the study of consciousness. For him *awareness* is the same as *consciousness*.<sup>8</sup> This automatically blocks all research based on a Lockean understanding of consciousness, an understanding that includes the connection of the “I” with its related surroundings. The advantage the neurobiologists see in broadening the concept of consciousness to include every state of awareness that allows an organism to perceive its environment is that it makes it possible to study the phenomenon in non-human animal species and carry out experiments that are inadmissible in people. However, by excluding the cultural networks that envelop the consciousness of the self, even strictly neuronal phenomena become clouded. They are limited to being understood only in that broader sense. I would like to emphasize the fact that throughout the book I will understand consciousness as the process of being conscious of being conscious. A Castilian dictionary from the seventeenth

<sup>2</sup> Locke, *An essay concerning human understanding*, chapter 27, § 9.

<sup>3</sup> *Ibid.*, chapter 27, §§ 12 and 15. <sup>4</sup> *Ibid.*, chapter 27, § 16, pp. 324–325.

<sup>5</sup> *Ibid.*, chapter 27, § 23, p. 328. <sup>6</sup> *Ibid.*, chapter 27, § 27, p. 332.

<sup>7</sup> The roots of the Latin term *consciūs* are *scīve* (know) and *con* (with). The Oxford English Dictionary gives: “knowing something with others.”

<sup>8</sup> Koch, *The quest for consciousness*, p. 3. With more precision the neurobiologist Francisco Javier Álvarez Leefmans has defined consciousness as “a mental process, in other words, neuronal, through which we notice our “I” and its environment, as well as its reciprocal interactions in the realm of time and space;” “La conciencia desde una perspectiva biológica,” p. 17.

century produced the following definition: “Consciousness is the science of the self, or very certain science and quasi-certainty of that which is in our spirit, good or bad.”<sup>9</sup> I like the naïve conviction with which this antiquated definition accepts that science can know the secrets of the self, whether benign or malignant, with certainty.

Where do my reflections on the problem of consciousness come from? I can refer to at least four principal sources. First are my many years as a sociologist immersed in the study of different expressions of social consciousness and their relation to the structures that drive it. Second are my anthropological studies of history and the function of myths, emphasizing those that deal with mental illness or identity. Third, I cultivate the habits of introspection, sometimes systematically, but more often randomly following the fluctuations of my literary and musical tastes or my reveries.<sup>10</sup> Finally, and very importantly, I spent a number of years reading and studying the results of research carried out by neuroscientists. I believe I have brought together enough elements to present a tentative and exploratory essay, undoubtedly risky and rash, on one of the greatest enigmas facing science.<sup>11</sup> I must confess I would never have dared embark on this journey if, while I was walking alone through the Gothic quarter in Barcelona in 1999, a sudden thought had not irrevocably pierced my brain. From that autumn day on, I began to obsessively search through neurological research for the knowledge that would convince me to abandon my line of thinking. I admit I was not displeased – though I was surprised – to discover that what I read helped to strengthen the original idea and to further its transformation into a manageable hypothesis. I have not been able to resist the temptation of presenting it to readers in the hope that it just might make a contribution toward solving the enigma that is consciousness.

<sup>9</sup> Sebastián de Covarrubias, *Tesoro de la lengua castellana o española* (1611).

<sup>10</sup> Javier Álvarez Leefmans explains the importance of introspection in “La conciencia desde una perspectiva biológica.” A similar idea is developed by José Luis Díaz in his article “Subjetividad y método.” Díaz rightly states: “if consciousness is not an internal, secret, and hidden mental factor, but is in some way imprinted on verbal information, then it is clear that an empirical and technically credible analysis of introspective verbal information would actually be an analysis of the characteristics of consciousness”(p. 164).

<sup>11</sup> In 2003 I presented my hypothesis on the exocerebrum in a conference at the Centro Cultural Conde Duque in Madrid on November 6. I published my conference paper in February 2004 as “La conciencia y el exocerebro.” Another advance notice of my ideas appeared as “El exocerebro: una hipótesis sobre la conciencia” in 2005.