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Titolo Trees of the brain, roots of the mind // Giorgio A. Ascoli

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Sommario/riassunto "The human brain is often described as the most complex object in the

universe. Tens of billions of nerve cells-tiny tree-like structures--make up a massive network with enormous computational power. In this book, Giorgio Ascoli reveals another aspect of the human brain: the stunning beauty of its cellular form. Doing so, he makes a provocative claim about the mind-brain relationship. If each nerve cell enlarged a thousandfold looks like a tree, then a small region of the nervous system at the same magnified scale resembles a gigantic, fantastic forest. This structural majesty--illustrated throughout the book with extraordinary color images--hides the secrets behind the genesis of our mental states. Ascoli proposes that some of the most intriguing mysteries of the mind can be solved using the basic architectural principles of the brain. After an overview of the scientific and philosophical foundations of his argument, Ascoli links mental states with patterns of electrical activity in nerve cells, presents an emerging

minority opinion of how the brain learns from experience, and unveils a

radically new hypothesis of the mechanism determining what is learned, what isn't, and why. Finally, considering these notions in the context of the cosmic diversity within and among brains, Ascoli offers a new perspective on the roots of individuality and humanity"--MIT CogNet.