



The Hand and the Brain: From Lucy's Thumb to the Thought-Controlled Robotic Hand

Göran Lundborg

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This book presents the human hand from an overall perspective – from the first appearance of hand-like structures in the fins of big fishes living millions of years ago to today's and the future's mind-controlled artificial hands.

Much focus is given to the extremely well-developed sensation of the hand, its importance and its linkage to brain plasticity mechanisms. How can active hands rapidly expand their representational area in the brain? How can the sense of touch substitute for other deficient senses, such as in Braille reading where hand sensation substitutes for missing vision? How can the mere observation of active hands, belonging to others, activate the hand area in the observer's own brain and what is the importance of this phenomenon for learning by imitation and the understanding of other peoples' actions, gestures and body language? Why are some of us left-handed and what are the consequences from cultural and physiological viewpoints? Why does phantom sensation and phantom pain occur after hand amputation, and what can we do about it? Why can salamanders regenerate new extremities while humans can not? Is it possible to transplant a hand from a diseased individual to an amputee? Can artificial robotic hands be controlled by our mind, and can they ever gain the role of a normal hand? What role did the hand and the brain play during evolution in tool construction and development of language and cognitive functions? The hand has a high symbolic value in religion, literature and art and our hands have a key role in gestures and body language.

The Hand and the Brain is aimed at anybody with interest in life sciences, in the medical field especially hand surgeons, orthopaedic specialists, neurologists and general practitioners, and those working in rehabilitation medicine and pain treatment. The original Swedish version of *The Hand and the Brain* has also become very popular among physiotherapists, occupational therapists, psychologists, and among a general population with an interest in science.

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Reading a guide tends to be new life style in this era globalization. With looking at you can get a lot of information that could give you benefit in your life. Using book everyone in this world could share their idea. Publications can also inspire a lot of people. Many author can inspire all their reader with their story or even their experience. Not only situation that share in the textbooks. But also they write about the knowledge about something that you need example of this. How to get the good score toefl, or how to teach your children, there are many kinds of book which exist now. The authors on earth always try to improve their proficiency in writing, they also doing some exploration before they write with their book. One of them is this The Hand and the Brain: From Lucy's Thumb to the Thought-Controlled Robotic Hand.

Lillian Thrasher:

The book untitled The Hand and the Brain: From Lucy's Thumb to the Thought-Controlled Robotic Hand contain a lot of information on that. The writer explains the girl idea with easy way. The language is very clear to see all the people, so do not necessarily worry, you can easy to read the item. The book was written by famous author. The author gives you in the new age of literary works. You can easily read this book because you can please read on your smart phone, or product, so you can read the book with anywhere and anytime. In a situation you wish to purchase the e-book, you can wide open their official web-site as well as order it. Have a nice go through.

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In this time globalization it is important to someone to receive information. The information will make professionals understand the condition of the world. The health of the world makes the information easier to share. You can find a lot of references to get information example: internet, classifieds, book, and soon. You can view that now, a lot of publisher in which print many kinds of book. The actual book that recommended to your account is The Hand and the Brain: From Lucy's Thumb to the Thought-Controlled Robotic Hand this guide consist a lot of the information from the condition of this world now. That book was represented how can the world has grown up. The dialect styles that writer value to explain it is easy to understand. The

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