

Understanding animal cognition

Helena Telkänranta 2016. Eläin ja ihminen. Mikä meitä yhdistää? Helsinki: Suomalaisen Kirjallisuuden Seura. 181 pp. ISBN 978-952-222-710-2

Animal and human. What combines us? is a book written by Finnish evolutionary biologist Helena Telkänranta, who is a specialist in animal cognition. This book about animals and humans and what, considered from a human point of view, combines us, is an important work for understanding that animals and humans are much alike. The book gives insights into the world of animal cognition and compares those cognitive skills to human skills. Through these comparisons, Telkänranta sheds light on those very small details in the cognitive skills of different species which are not visible to most humans but which can explain why animals act the way they do and act towards humans as they do. She explains the wisdom behind the species and their abilities to communicate.

The book is written in a way that addresses everyone despite their background, education or previous understanding of animals. This is a valuable feature of the book while it opens up difficult scientific research results in a lighter mode understandable to all. When I write previous understanding of animals, I mean previous because once you have read this book, your understanding of animals is indeed greater than before. This book does not make our understanding of animals complete, but instead, it tells that it is an ongoing process. The things we know now might be understood differently within a few years or decades, but as for now, this is what can be said. Therefore, a lot of the research data presented in the book has been produced by a number of scholars around the world. Together, they paint a picture of the current situation of understanding the cognition among animals.

The book compresses and summarizes a massive flow of data and research outcomes into only a few pages. This puts us readers in a tough spot because we need to digest a lot of information throughout the book. The contents of the book

are divided into eight chapters. In these chapters, different cognitive skills of various species are presented and also compared with human skills. What becomes obvious in all these chapters and research findings is that animals are much better at adapting themselves to other species and to humans. Humans, on the other hand, are not good at adapting to other species, which causes a lot of problems for animals of all kinds.

The different chapters also show how underdeveloped humans are with regard to e.g. the senses and the use of them. Animals have better abilities to use their senses while they have been developing them throughout their existence, whereas we humans, instead, seem to lose more and more of our senses we were born with. These chapters also shed light on the adaptation of animals to nature and changes in nature and climate. This adaptation does not always favor all species, but instead it may exterminate species, make their living conditions harder, cause them to change their natural habitat etc.

The first two chapters focus on the communication skills of animals, and how different ways of communication are familiar to both humans and animals while others only exist within the world of certain species. How we speak to each other is not about words, tones or gestures. Within the world of animals, communication also includes the invisible and the unheard – this concerns both us humans and many other species. It varies tremendously according to the species. One wild animal species we have tried to understand and interpret for many decades are the dolphins. They are also dealt with in the first chapter alongside the cognitive skills of honeybees and birds.

In the second chapter, the readers are introduced to the world of rhythms and imitations. It is impressive to know what makes animals move and willing to move, and that how we and animals react to a sound heard from the radio might not be on the same level at all. Dogs do not sing; they howl even if we people like to humanize them into being able and willing to sing to a certain piece of music. This howling is not based on rationality but on an instinct inherited from the wolfs.

In the third chapter, mathematical skills, counting and time is under examination. It is incredible to know how much counting and counting skills there are among different species; among birds, apes and chickens. It is also impressive to learn that many species are able to exercise their counting skills, just as we humans can. Our perception of dogs being able to count the time they are left alone at home, for example, does not seem to add up in light of test results but can instead be explained by the fading of human odor. When the fading continues, the dog starts to wait for her owner to arrive home.

In chapter four, we are introduced to asymmetrical things among animals, and how animals, just as humans too, choose to use right or left hand or paw for certain actions as their first choice even to a point that the sex of certain species can be defined by the use of their paws. The use of right or left is an evolutionary characteristic resulting from animals' adaptation to survive by using a certain paw or different parts of the brain to activate the body to perform different skills.

These individual and common skills and practices among different species can also be spotted in their interactive skills discussed in chapter five. As humans, also animals are social in different ways and to a different extent. Cat owners must agree that their cats can have very different personalities and develop different dynamics within the colony as well as towards humans. Some cats are also very adjustable, creative and clever while others do not show much interest in learning new things or skills.

That only humans would be able to show empathy and act on it is an old belief. Instead, animals

and species are known for showing empathy towards each other and in many cases also towards other species. Showing empathy and helping others is not always manifested in the same way as with humans, which can cause confusion among humans when they try to read animals.

Chapter seven discusses the interesting aspect of animal culture and how animals and species make their own culture by adapting to their living environment and by making use of it socially, technically and culturally. Research done among wild primates has shown that chimpanzees and orang-utans have very complex social structures that define their living conditions. They also have very comprehensive cultural practices that resemble those among humans. These structures and practices are adopted by new generations through learning – just as among us humans.

What combines us humans and animals and what are the effects of this? This is the topic of discussion in the last chapter and the chapter I want you to read. As this book in itself is able to show in a very convincing way, animals and humans are much alike but still very different. The differences might not be purely based on interaction or ways of showing empathy, but in fact they are different because we look at the differences from a human point of view and are not able to understand what we observe. Therefore, my recommendation to all is to read the book and to digest the huge amount of information it has to offer. It might be too much for a one-time-reading and it might require many visits back but it is well worth it.

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