Book Review

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E. Altenmüller, S. Schmidt, E. Zimmermann (eds.)

Evolution of Emotional Communication: From Sounds in Nonhuman Mammals to Speech and Music in Man

Oxford University Press, Oxford 2013
XIV + 376 pp.; GBP 49.99
ISBN 978-0-19-958356-0

About a third of the way through *Evolution of Emotional Communication*, Joseph Soltis, a contributing author, sums up one of the fundamental challenges when writing on emotion: ‘Almost anything said about emotions, in particular human emotions, is controversial.’ I would argue that describing and attributing emotions to *nonhuman* taxa is equally, if not more, controversial, and provokes both public [Morell, 2013] and academic interest. Often at the centre of these debates lie questions of definition; that is, if we cannot agree on what emotions are in humans, how can we possibly tackle this same topic in other species?

In this outstanding volume of 19 contributed chapters across four broad subsections (‘Different mammalian taxa’, ‘Nonspeech human vocalizations’, ‘Human prosody’, ‘Music’) plus a concluding chapter, we learn about: emotional communication in mice, cats, bats, elephants and primates; the physiological and behavioral responses to music of monkeys and humans; ontogenetic to phylogenetic continuity in emotional communication, and efforts to locate critical mechanisms at the cerebral cortex and neurotransmitter level. Altenmüller, Schmidt and Zimmermann recognize the problem of definition immediately and avoid a common pitfall in any edited volume: definitional diversity. The editors should be applauded for making clear immediately (pp. 3–4) where ideas converge across disciplines. This volume does not seek to define emotion *per se* but rather to describe how emotion is perceived and conveyed, as well as how we can study it scientifically. One cannot question the ambition of the editors after compiling such a diverse group of papers that address fundamental questions regarding what is emotional communication and where and how we can study it.

Each chapter provides a specific working definition so the reader can follow the authors’ logic. Studies are hypothesis driven and analytical – key ingredients when attempting to operationalize emotion and interpret it in an evolutionary context. Moreover, there is impressive balance of human and other mammalian taxa, and an effort to situate species along the continuum of emotional communication. In both the human and nonhuman taxa, authors discuss expression and perception of emotion, which (as many authors acknowledge) is often difficult to decipher, especially in (human) self-reporting studies.

In the end, the editors conclude that we cannot reduce emotion or emotional communication to neural systems or personal relationships in any species. Nor can we clearly distinguish what humans experience as emotion from what other animals do, as the parallels in facial, physiological, and acoustic properties are far too similar to deem this phenomenon anything except homologous.

The primary strength of this book is the diversity in approaches represented to tackle emotional communication. The technical language of each speciality (especially those under ‘Human

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prosody'), however, is sometimes difficult to digest. Better contextualisation of these chapters within the broader framework of the volume would have helped.

This shortcoming notwithstanding, the editors do a commendable job of assembling an array of scholarship that addresses the various levels on which we can study emotion and how it is communicated. Regardless of how we define emotion, for anyone with even a passing interest in how scientists approach the enigma of it, and in which species, this volume represents a brilliant demonstration of how diverse the people are who work in this field.

Alex Piel, Cambridge

References

Morell V (2013). *Animal Wise: The Thoughts and Emotions of Our Fellow Creatures*. New York, Crown Publishers.