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**Dario Martinelli. Of Birds, Whales and Other Musicians – Introduction to Zoomusicology. Scranton and London: University of Scranton Press, 2009. 243 pp. ISBN 9781589661877**

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There is a tendency, within the scientific community, to take zoomusicology mostly as an exotic curiosity, with little scientific relevance. Other scholars, more open minded, still act cautiously, almost as if they were facing a plate of fried grasshoppers, waiting for someone to try it first. What these two approaches usually share is that in both cases scholars hardly have an idea of what zoomusicology really is, and tend to consider the subject mainly through anecdotes.

Dario Martinelli wrote this book with the intention to shed light on the mystery, and thanks to his competence and clarity, at the end of the book there is a chance that skeptics will change their mind. He starts with a brief but necessary excursus into zoosemiotics of lying, playing and, of course, aesthetics, then guides the reader through the discovery of what he calls *Zoomusicological universals* by analyzing birds, whales and other animal musical performances. He provides several examples, references and cues for further research.

The idea of zoomusicology originated in 1983 with François Bernard Mâche, in his *Music, Myth and Nature*, a book to which Martinelli frequently refers to. Already by the 1970s, Roger Payne and Scott McVay (1971) wrote a scientific paper talking about rhythm, themes and phrases

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in humpback whales' songs, but it was not until Mâche that a proper connotation of the subject was defined. However, it is mostly Martinelli himself who tackles the task of providing a clear (official?) definition of the term "zoomusicology", as the "aesthetics use of sound communication among animals" (p. 6). Much can be inferred of the author's scholarly program from this definition. By avoiding the dangerous term "music", for example, he embraces a scientific approach to the argument, and by speaking of "sound communication" he brings zoomusicology into the domain of semiotic analysis.

It was 1871 when *The Descent of Man* (Darwin 1871) was published. Printed in it, the assumption that birds and humans share the same aesthetic sensibility. As interpreted by Mundy (2009), while Darwin used aesthetics to minimize the distance among humans and other animals, modern scientists do exactly the opposite. Aesthetics is regarded as part of the "humanities" from the time of Descartes, and thus gradually his ancient and trans-specific meaning (from the Greek *aisthanomai*, perception by the senses) has been forgotten. And here comes zoomusicology.

What you will *not* find in *Of birds, whales, and other musicians*, Martinelli himself warns, is a new-age approach, which is here openly regarded as anti-scientific and dangerous for the field's reputation, but rather an ethological one, describing musically purposed behavioral patterns. "Zoomusicology approaches nonhuman animals from the direction of human sciences" (p.7) Martinelli writes, "and music from the direction of biological sciences" (Ibid.). The statement is followed by an effort to coordinate different sciences in order to build a valid zoomusicological framework, that – by consequence – cannot but be profoundly interdisciplinary.

Another argument for the skeptics is that aesthetic activities (like music, architecture, painting) cannot be expected to appear in animals, as they have no biological function. Such an argument does not leave Martinelli silent: "Very few things promote the preservation of an individual more than does its emotional and intellectual welfare" (p. 71). Not without reason, rules of communication change when speaking about the aesthetic use of sound. While for non-human animals "everyday" messages are nearly always as economic as possible in terms of wasted energy and time, the aesthetic messages explode in "redundant, creative and playful" (p. 195) performances.

Criticism to behavioristic theories is thus present here and there throughout the book, the strongest one being the idea (or the provocation) to reverse Morgan's Canon upside down: "In no case should actions or behaviors be interpreted as the result of an inferior psychic faculty, when it is possible to interpret them as a result of a superior faculty" (p. 34). Scientists – it is argued – tend

to lower their expectations when dealing with cognition in non-human animals, and when it seems impossible to avoid a cognitive explanation, the “big, fat, black box” called instinct is often called into the scene. In Martinelli’s mind, this approach to animal cognition problems makes it impossible to go beyond the canonical belief by which human is the most (and only) intelligent animal.

Due to this vision, music is usually taken as a uniquely human feature. Obviously, Martinelli puts into discussion the anthropocentric connotation of this definition. As an emotion-based phenomenon, indeed, music can be perceived, elaborated and performed by every mind-provided system. At this regard, as the author points out, zoomusicology share a common destiny with ethnomusicology: “the problems which zoomusicology is supposed to solve in order to demonstrate that music is not exclusively human are in principle the same problems ethnomusicology was supposed to solve in order to demonstrate that music was not exclusively Western” (p. 105). To attribute musical capacities to other animals does not imply to compare human’s and non-human’s musical performances.

This feature seems to be one of the biggest difficulties for this discipline to overcome. Even if a scale of quality is not only impossible, but erroneous, the use of traditional notation is frequent, and some scientists even approach zoomusicology uniquely as a science that compares music and animal sounds (Thompson 2008). Instead, the development of musical traits is ruled by the dynamics of the respective *Umwelten* (the world as perceived by each species), thus composition rules, reception and performance vary species by species, and cannot be compared.

Nevertheless, sound organization share a community of rules among all the different musical animals, and thus a biocentric, rather than anthropocentric, theoretical paradigm of music is considered necessary. To West et al (2004), sounds or music can create a shared context among different individual and even taxa, serving as a medium to express reciprocal recognition. Even if not plainly talking about zoomusicology, the authors recognize the need of a discipline that investigates how music can forge bonds among disconnected individuals, even in the word of non-human animals. To open the doors of musicological sciences to non-human animals, Martinelli proceeds through the analyses of zoomusicological universals. “What is required of a musical element in order to define it as universal?” (p. 134). Several scholars have been intrigued by the theme, but a commonly-accepted solution has not been achieved yet. The question of the existence of archetypical musical structures is far from being solved. In this discussion, zoomusicological research can be helped by ethnomusicology, particularly in its tripartite

analytical strategy that classifies universal classes. Musical performances are thus organized in structures, i.e. the study of musical traits in themselves, aimed to define the organization of sounds (for example, it emerges that all animals use musical scales); processes, which deal with the realm of the para-musical (the cultural dimension of making music); and experiences, the investigation of music as an experience lived by an individual.

The latter point brings the species-specific *Umwelten* to an individual scale: like us, non-human animals are not interested to music as a species, but as individuals, “providing once again how every species is [not] a conglomerate ... of clones” (p. 200).

What also emerges from the reading of Martinelli’s book is his profound respect for every life form as a unique being, with personal desires and emotions (and, while we are on the subject, I noticed with pleasure the use of the pronoun “she” rather than the usual “he” when referring to an entity of unknown sex).

Only a few years ago, it would have been absolutely beyond argument to publicly speak about musical traits in animals, at least in a scientific background. Now the scientists studying this subject are several. Musical abilities and/or preferences of bonobos, humpback whales and parrots, just to make some examples, are under observation in Research Centers all over the world.

The key to use the correct eye to look at zoomusicology is at the end of the book, in a paragraph devoted to bioacoustic relations. In brief, they couple a physical characteristic and a musical trait, and explain the relation that occurs between them. In the case of heartbeat and musical tempo, for example, bioacoustic relations explain why one cannot play a hard-rock piece while having the same heartbeat as if he is sleeping. Thus, “musical cultures [could be interpreted] as consequences of each species’ musical-biological *Umwelt*” (p. 212) (it is simply absurd to imagine a sloth performing as fast as a European Robin). That is why humpback whales sing at tempos like *largo* and *maestoso*, that proceed at the same pace of the waves, and why their songs are cyclic, as “almost everything in their life is cyclic” (p. 213): the movement of the waves, migrations routes, the “underwater acoustic effect [that] shape the sound wave in a roundish fashion” (Ibid.).

Concluding, *Of birds, whales and other musicians* is a poignant book. It is grounded with philosophy, biology, ethology and semiotics, and may appeal to musicians, scientists, students from humanities and sciences, and (thanks to a rather accessible language, and generally light tones) everyone interested in understanding other animals.

And most of all, do not forget this book is fun, and “having fun and pleasure...are biological advantages. To feel fine is the best survival strategy one can think of” (p. 191).

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## Cita recomendada

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