

Why Do We Have Music?

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Music is universal. All cultures have music. Why? The field of Biomusicology suggests that music is an evolutionary spin-off from patterns of sexual selection. In particular, males who "made music" together may have attracted females, who chose music-makers as mates. Thus, we may have music because males that were musical were more likely to reproduce than males that were not. In short, we have music because to be human is to be musical.

Why does music exist? This most basic of all questions has been an enduring puzzle. In contrast, if we ask why we eat, the answer is simple ... "to live". But music? The answer is not so clear at all. We can list things that music does for us, and its many functions. One example is that we use music to change our moods. Another is that we express ourselves, our thoughts and feelings, through music. That we have it allows us to use it. But listing the uses of music still doesn't explain why we have music.

Professor Bjorn Merkur of The Institute for Biomusicology, Mid Sweden University, has formulated an interesting, and in many ways compelling, explanation of the origins of music.¹ In order to fully appreciate the nature and scope of Dr. Merker's ideas, it will be necessary for the reader to consult his original article, which will be published this Fall in an exciting new book entitled *The Origins of Music*. I will attempt to provide a summary that is sufficiently detailed for present purposes, because I have selected Dr. Merkur's work not only for its own value but as a companion piece to the longer preceding essay on the origins of music within the individual ("Lessons of the Music Womb"). Together, the two essays concern music's origins.

We begin with Darwin's stunning insight that traits and behaviors, which contribute to successful reproduction, will survive in evolution whereas those which do not are likely to fall by the wayside. So the question is, "Is music one of those valuable capabilities?" Dr. Merkur answers in the affirmative. To seek the evolutionary origins of a human capacity, we cannot examine human fossils because behavior doesn't fossilize. However, we can look at our closest living relatives among the non-human animals, because traits we share with them are likely to have been held by our common ancestors, predecessors of our species *Homo sapiens* and of our closest relatives, in this case chimpanzees, *Pan troglodytes*. Dr. Merkur points out several relevant aspects of chimpanzee society and behavior.

First, they live in groups. Second, the groups stake out a fairly specific territory. Third, the territories of different groups are usually adjacent. Fourth, a stranger wandering into the wrong territory is likely to be attacked and perhaps severely injured. Fifth, given adequate territory for each group, it is in everyone's interest not to provoke aggression by straying into the wrong area. Sixth, in chimpanzee habitat, one cannot count on knowing the exact boundaries by sight so it is better to know where the members of the strange group are. Seventh, again because of the dense vegetation, one can't count on seeing the neighbors. Eighth, chimpanzees can locate another group by listening for their

vocalizations. So, to this point, vocalizations serve to keep potentially warring bands from stumbling into each other.

However, although there are social forces at work to keep bands of chimpanzees separate, there is at least one force that brings two groups in contact, the essential need for cross-breeding. In-breeding within a group would lead to its ultimate demise due to the concentration of maladaptive genes. Hemophilia, the inability to readily stop bleeding after an injury, is one such hallmark of inbreeding, well established among European royal families.² To cross-breed, a chimp must leave its group and be accepted into a rival group.

In chimpanzee society it is the female, not the male, who leaves and seeks mates among strangers. This behavior, technically termed "female exogeny" is not limited to chimpanzees but in fact is found within human societies, specifically in hunting and gathering societies. (The latter seem to me to live in a manner more similar to our ancestors than to contemporary industrialized society.)

How does the female find the males in the new band? A single male vocalizing may not be heard at the distances involved. But a group of males that vocalize synchronously, that is at the same time in roughly the same place, will be heard. In a sense, males "singing" in a chorus, can attract females. And male chimpanzees perform this group behavior. Therefore, when the female finds the singers, she is far more likely to mate with one of them than with a lone chimp off at a distance that, "singing alone", will be undiscovered and therefore non-reproductive. In short, the evolutionary advantage to singing together is that the males' chances of reproducing are far greater than otherwise. Hence, there is an evolutionary pressure for social chorusing.

The female plays a critical role in the process. She, after all, makes the final decision as to the choice of mate. This is "sexual selection" pure and simple.

In summary, Dr. Merkur's thesis is that the musical ability and musical behavior of *Homo sapiens* originally evolved as an advantageous reproductive strategy in the ancestors of humans and chimpanzees. So an answer to the question "Why do we have music?" seems to be that "We have music because to be human is to have music ... it is an essential part of human nature."

-- N. M. Weinberger

1. Merkur, B. (in press). Synchronous chorusing and human origins. In: *The Origins of Music*. N.L. Wallin, B. Merker, & S. Brown (Eds.), MIT Press: Cambridge, Mass. I am indebted to Dr. Merkur for kindly providing me an advanced copy of his chapter. Publication of the volume is scheduled for Fall, 1999.

2. As I recall, the last tsar of Russia, Nicholas, married his cousin Alexandra; their son Alexis, suffered from hemophilia and was in ill health until his untimely demise at the

hands of the Bolsheviks in 1918.

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<http://www.musica.uci.edu/mrn/V6I1W99.html#womb>