



Above: What we looked like 85-100 million years ago. (Jacket design by David Rowley, from: Richard Dawkins: *The Ancestor's Tale*. London: Weidenfeld and Nicolson, 2004.)

Below: The vocal apparatus of human primates compared with the vocal apparatus of non-human primates. (from: *Evolution of human vocal production* Asif A. Ghazanfar and Drew Rendall: *Evolution of human vocal production*. In: *Current Biology* 18(11) R457-460.)

Current Biology Vol 18 No 11
R458

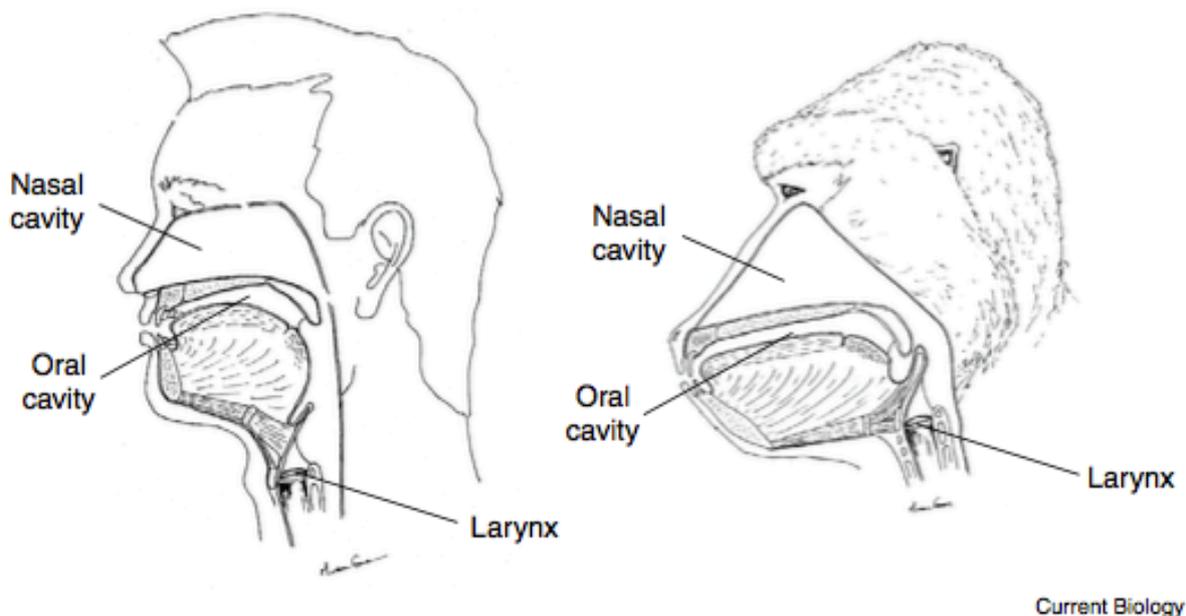


Figure 1. Anatomy of the vocal apparatus.

In both human and nonhuman primates, the source of voiced sounds involves vibration of the vocal folds of the larynx. This sound source travels up the vocal tract, where the oral and nasal cavities of the vocal tract act as a filter, passing acoustic energy at some frequencies and attenuating energy at other frequencies according to their size- and shape-specific transfer function. The sound radiated at the lips thus reflects the combined action of an acoustic source and a filter. Note that the larynx lies lower in the vocal tract of the human compared with the baboon, creating a second large cavity (the pharynx) at the back of the mouth that is relatively absent in the baboon. (Artwork by Michael Graham; adapted with permission from APA from Rendall, D. et al. (2007). *J. Exp. Psychol. Human Percept. Perform.* 33, 1208–1219.)