

# Sasquatch & Language

by John Morley, Biologist

Reports of what are language-like sounds are not all that uncommon to researchers in this field. As such, one can reasonably ask whether language would be significant in determining whether sasquatch are more human-like or more ape-like. The fact is, language is considered unique to humans and to the genus *Homo*. Most scientists believe that a spoken language is one thing that separates human primates from non-human primates. Dmitri Bayanov had this to say about language:

In agreement with Porshnev [Boris], I accept only speech, not tools and society, as the most basic trait that distinguishes humans from animals.

Many linguistic and cognitive professionals agree that speech (language) is unique to modern humans. If gorillas or chimpanzees possessed a spoken language as defined by man, their nature and their scientific classification to the family Pongidae would need to be reconsidered. Interestingly, we do not know whether early forms of man such as *Homo erectus* or *Homo habilis* possessed a language or not. Yet these early forms were assigned to the *Homo* genus based on other human characteristics. If an unclassified primate were found to possess a spoken language as well as orthograde bipedality with a human-like foot, its assignment to the genus *Homo* would not only be likely, it would be imperative because these are three key characteristics required for such a taxonomic classification.

We do know that sasquatches are upright walking primates, with a human-like foot. Thus we have confirmation of the first two characteristics noted above. The remaining question then is this—do sasquatches possess a spoken language? A language would not be the screams or whoops they are known to make. Rather, it would be conversational sounds occurring in close proximity to other sasquatch, usually between two or more of them.

Have such sounds been heard? The answer is a resounding yes. The Berry/Morehead tapes (BMTs) are some

of the best known examples. The one and two syllable words this writer personally heard contained rising and falling inflections, and were made by what I perceived to be two bipedal creatures walking in thick cover directly in front of my research location.

Scott Nelson is likely the most qualified person in the country to address whether sasquatch use a spoken language. He is a crypto-linguist with over 30 years experience in foreign languages and linguistics. He is a two-time graduate of the Defense Language Institute, Foreign Language Center, and a graduate of a Department of Defense Communications Intelligence Analysis and Reporting School. For some nineteen years, Scott taught Russian, Persian, and Spanish at Wentworth College in Missouri. For three years following, he served at the Missouri Military Academy as head of the language department.

Several years back, Scott completed a 12 month analysis of the Alan Berry/Ron Morehead original recordings, better known as the Sierra Sounds. His ground breaking findings were a new milestone in our knowledge of these beings. He concluded that the creatures heard in these recordings were indeed speaking a language. He states that, “We have verified that these creatures use language, by the human definition of it.”

In his written report titled “Characteristics of Human Language Evident in the Berry/Morehead Tapes” (BMTs), Nelson states that:

Certain functions of language are indistinguishable from language itself, namely communication and thinking. Verbal communication, the conveyance of symbolic meaning through utterance is the very purpose of language. Therefore, any vocalization that contains morphemes (syllables) or units of meaning, is indeed serving this purpose.

He further stated that:

Thinking is tantamount to how we define ourselves as human beings, the mental process that makes us sentient and separates us from

lesser species. Language as the means by which we communicate our thoughts is inseparable from thinking; when we form thoughts we do so in a certain language.

In the above quote, Nelson uses the existence of a spoken language to prove that sasquatch are thinking beings. This is based on the “unitary principle of thought/language.” He concludes that the process of thinking makes sasquatch humanly sentient versus lesser species of primates which lack a human language ability. Modern humans reading this, when thinking about what they are reading, will realize that each is using their own language in their thinking process. Such helps make Nelson’s point regarding the unity of thought and language, as well as his statement that it is this “mental process that makes us sentient.”

In his review of the various properties of language displayed in the BMTs, Nelson refers to creativity as being widely heard. He bases this on the fact that the creatures have seemingly combined endless morphemes (syllables) into words, which are then used in making utterances.

One of Nelson’s most vivid points, one that reduces any doubt as to these creatures possessing a language, is referred to thusly:

All human language is open in the sense that new words and phrases from a wide variety of sources enter our languages every day. It is here that the most compelling evidence is found for the subject creatures use of language. The presence of so many cognate words and phrases in the vocalizations, demonstrates unequivocally that the creatures are using language and that it is open to the influence of the primary human languages on this continent.

Nelson’s analysis of the BMTs confirms that human-like morphemes are present in virtually all of the recordings, and that words (single and multi-syllable) are heard throughout the tapes. His work concludes that not only is thinking (as a function of language) evident in the tapes, but also that the language functions of

intimidation, persuasion, instruction, and emotional expression are heard in the tapes. He acknowledges that we do not have knowledge of the various intuitive symbols (words) used within the sasquatch language. For example we do not know their word for "tree." However, the language process by which they refer to trees, other animals, humans, and the other objects within their environment will function as it does for all languages used by modern humans.

Having now established that sasquatches possess an articulated language, we are now able to address, identify, and define the physical anatomy necessary for them to have a language.

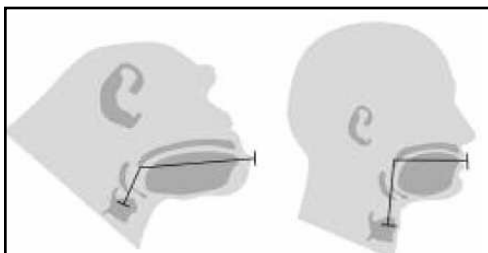
First, they would need greatly improved respiratory control such as found in modern day humans, but lacking in modern day apes. Without such control of breathing, humans would only be capable of short unmodulated utterances like those of living, non-human primates. Humans were able to achieve independent breathing by becoming bipedal. Bipedality frees the upper arms and thorax from involvement with locomotion, thereby permitting breathing independent of locomotion.

In addition to improved breathing, there are the essential physical attributes of the supralaryngeal vocal tract (SVT), which affect the extent to which a subject is able to produce sounds. Drs. Philip Lieberman and Robert McCarthy have written extensively regarding this subject. Lieberman is the Fred M. Seed Professor of Cognitive and Linguistic Sciences at Brown University, where he also is Professor of Anthropology. McCarthy is Assistant Professor in the Department of Anthropology at Florida Atlantic University. Their studies have shown that there is an optimal ratio between the horizontal and vertical portions of the SVT which facilitates the full range of sounds produced by modern humans. This ratio is numerically expressed as 1:1. Their research found that if the horizontal leg of the SVT is longer than the vertical leg, the subject is less capable of a full range of sounds.

Lieberman and McCarthy wrote that:

Humans achieve the 1:1 SVT ratio between the ages of 6 to 8 years. Only at this point are we able to

produce the quantal vowels [i], [u], and [a], whose formant frequency patterns make them resistant to auditory confusion and, paradoxically, have stable formant frequency patterns that resist slight errors in articulation. In particular the vowel [i] is an ideal acoustic index of the length of a speaker's vocal tract—a factor necessary for deriving the phonemes encoded in the flow of speech. Without these quantal vowels, speech would still be possible, but less effective.



In chimpanzees the hyoid bone and larynx are positioned high in the throat, at or near the base of the mandible, and the tongue is long and largely restricted to the oral cavity, resulting in a disproportionately shaped SVT. In modern humans the hyoid bone and larynx are low in the throat, well below the lower border of the mandible, and the tongue is large and only partially located in the oral cavity, resulting in an equally proportioned SVT.

Dr. Lynn Kirlin, a professor of electrical engineering at Wyoming University, was the first to analyze the BMTs. He wrote in reference to the quantal vowels:

The literature dealing with speech production and the evolution of the necessary vocal tract reveals that the tracts of non-human anthropoids are very different in that, when body size is normalized, human tracts are considerably longer. This results from the fact that human vocal chords are low in the neck, where as others are immediately at the rear of the oral cavity. This difference allows human-like tracts to produce certain unique plosive consonants (g), (k), for example, and formant sets as in the vowels (i), (a), and (u). Since (g) is used in the "gob" phrase on the tape, it cannot be produced by a known non-human-like anthropoid tract. That is, the speaker is either human or has a human-like tract.

It is important to emphasize that the quantal vowels are further evidence of the required 1:1 SVT ratio. They are important to the creation of the phonemes used in language. Scott Nelson in his analysis of the BMTs said this about phonemes:

Not only are phonemes present in the vocalizations, but they are so phonetically similar to human phonemes that we must conclude they are articulated (modified) by the same apparatus as that of humans, i.e., with the tongue, lips and teeth.

Because it is reasonable to anticipate significantly increased chest dimensions with an associated increase in lung capacity, together with a likely larger SVT, sasquatches may be able to produce sounds which humans are incapable of making. These could take the form of dual tones, where the fundamental tone has a higher secondary harmonic component. I have a sasquatch recording in which such a harmonic is heard. If the larynx (vertical leg) is longer and larger than that possessed by humans (studies indicate this could be true), then they may also be capable of sound frequencies much lower than those produced by the human male. These could take the form of infrasound, or unheard frequencies below 20 Hz.

Related to lung capacity and larynx length, Dr. Greg Bambenek heard a scream while on a research trip to the Skookum Meadows with the BFRO in 2000. His report reads:

This scream was like nothing I have ever heard. I estimated it to be about 100 yards away, but its volume, timbre, and presence was unbelievable. Within the scream I could hear the tympani of a large volume of air being released to manufacture this scream. The quality of this sound had to have been made by an animal with very large lungs, much larger than human lungs and vocal cords. It filled the woods and pushed me back against the bumper [of his vehicle] and vibrated my chest wall and pants' legs. I was stunned.

A previous study by Drs. Jorge C. Lucero and Laura L. Koenig, 2005, further spoke to the physiological size of

the human male vocal tract, and has applicability to this subject. Their work showed that the larger laryngeal size of the human male vocal tract results in less restriction of the oscillation conditions of the vocal folds (chords) than in the smaller laryngeal size of the human female. When we relate this to sasquatch, we can with valid reason (based on the various vocal analyses presented herein), anticipate that both sexes of sasquatch have a larger larynx than even the human male. We can also reasonably expect that it is easier for them to produce movement (utterances) of the vocal cords than it is for modern humans. And, as stated above, they are also likely able to produce vocal sounds at much lower frequencies than the human male.

Based on our discussion and the application of anatomical science to language-like sasquatch recordings, one can understand why the collection of sasquatch vocalizations (in particular language-like vocals) is extremely important and integral to the research of these phenomenal beings. Research into sasquatch language sounds could consume years of study depending directly on how soon more quality recordings of speech sounds could be collected and analyzed.

When we combined the work of Scott Nelson and others with that of Drs. Lieberman and McCarthy, we found that we were able to extrapolate and infer significant knowledge regarding the sasquatch SVT and their capacity for producing the full range of language sounds known previously only in human languages. This is a startling revelation—one which provides extraordinary scientific insight into the sasquatch language phenomena, and one which gives significantly increased direction and impetus to their proper taxonomic classification. To answer the polarizing question as to the real nature of sasquatches, the evidence of an articulated language means we can confidently conclude that they are not, and cannot be scientifically classified, as apes.

Scott Nelson's findings constitute the first time in recorded history that another living, upright walking primate other than modern humans has been shown to have

a spoken language. Some may believe that proof of a language in a creature which science has yet to acknowledge exists is a moot point. Yet the fact that there is now proof that they use a spoken language is in itself proof of their existence.

#### References:

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