

# Students research effects of throat singing on the body

BY KRISTIN HALUSZCZAK  
Staff Reporter

Everyone knows how to sing, even if they can't do it well. However, few can say they have mastered the art of throat singing.

Senior Mike Urlakis currently is studying the physiological effects of this little-known practice, which allows people to sing two notes at once by relaxing the throat muscles. He taught a group of Truman students to throat sing and is conducting an experiment that measures the effects of throat singing on the body.

Urlakis said he came across throat singing when he was younger, but his interest peaked after learning more about it in his world music class. He said it is more popular in other parts of the world, such as Tibet.

"I had heard this, and I was like 'You know, that's pretty cool,'" Urlakis said. "Nobody here knows how to do it. I want to figure this out. It sounded interesting to me."

He became frustrated when he realized there was not much information to be found on the subject, he said.

"I really never got a whole lot of direction, so what I ended up doing was pretty much sitting in my apartment making weird noises to myself for hours on end trying to stumble across this," Urlakis said.

He said that in throat singing, the first note is the main note, and by relaxing your throat you can simultaneously produce a second note exactly one octave below the first.

"You know when you do it because it feels different," Urlakis said. "It feels just so weird because you're making a sound that your body has never made before."

He said the feeling he experienced while throat singing was too powerful to ignore, so he wanted to learn more. He then decided he wanted to learn what effects throat singing had on his body.

"So I started hooking myself up to all these different data measurements: skin conductance, EEG, blood volume pulse, respiration rate, the whole nine yards, as much stuff as I could possibly do secretly on my own," Urlakis said.

Not expecting anything to come of it, he

was surprised when he discovered some interesting trends in the data, he said. With the permission of his faculty mentor, professor of psychology Fred Shaffer, Urlakis taught three people to throat sing and studied the psycho physiological results. He noticed a paradox between sympathetic arousals and the alpha and theta brain waves.

"The importance is that when you see alpha and theta boosts, you don't see sympathetic arousals," he said. "It just doesn't coincide anywhere. It kind of goes against the tenets of what you expect from brain spectrum sort of results."

Because of the unusual results, Urlakis said Shaffer wanted him to study the subject further. This semester Shaffer turned over his research team of about 20 people to Urlakis to set up a larger study with an increased sample size.

Urlakis presented the proposed experiment to the research team and asked for people who would be willing to participate in the study. Senior Kevin Mooney is one of the 12 participants in the study.

"When I joined the research group and this became an option, I just kind of picked up on it," Mooney said.

He said he first was introduced to throat singing in a world music class after watching a short documentary about it. The documentary featured a blues and jazz musician, Paul Pena, who had learned to throat sing, Mooney said.

"I thought that was really interesting, and I kind of liked his blues and jazz type of music so I got kind of interested in [throat singing] as well," he said.

Mooney said he is grateful that he learned how to throat sing.

"I did this because I was interested in Tuvan throat singing, and it was cool to see what you can do with your voice," Mooney said. "I liked seeing what your voice is capable of doing, and I just thought it was cool to get a glimpse of another culture."

Other members of the research team who have not volunteered as subjects in the study help run the tests, Mooney said. Sophomore Chris Wally is the assistant lab manager for the research team and is helping with the data col-



Mayank Dhungana/Index  
Senior Mike Urlakis monitors a participant during his study of throat singing. Urlakis created this study with the help of a faculty member.

"I liked seeing what your voice is capable of doing, and I just thought it was cool to get a glimpse of another culture."

Kevin Mooney  
Senior

lection.

"We pretty much run the study," Wally said. "[Shaffer] gives us the foundation, and we run the study by setting things up, editing the script, collecting the data and editing the sheets."

He said right now they are finishing data collection and cleaning it up, a process called artifacting.

"If there's certain spikes, that means that maybe the person coughed while they

were being measured, and we take that out because we don't want to measure that," Wally said. "We want to measure the throat singing, and that's why we artifact."

He said they have not analyzed the data yet, so no conclusions can be made at this point.

"This is the stage we're in right now, collecting everything, looking at it, cleaning it up, and that's pretty much where we are right now," Wally said.

# Weather safety class provides storm savvy

BY SHANNON WALTER  
Staff Reporter

Storm season is brewing, along with awareness and knowledge.

The National Weather Service presented its nationally accredited SkyWarn Storm Spotter course Tuesday at the Department of Conservation. The course is designed to inform people about the proper procedures to take during a storm as well as how to spot one. The free course was open to all Kirksville residents interested in a greater knowledge of storms and storm spotting.

Randy Behrens, Kirksville emergency management director and fire chief, said he sets up the course in Kirksville each year.

He said people should always be aware of the storm shelter in their area. There are many safe places throughout Truman's campus that will offer shelter during a storm, Behrens said.

"Storm season is coming," Behrens said. "[You should] listen to your radio, watch television and be aware of [weather conditions]."

Noelle Runyan is a National Weather Service senior meteorologist at the Pleasant Hill, Mo., office. She said the course covers the conditions for thunderstorm development, types of thunderstorms, what types of weather makes up a severe storm and safety measures to take during storm spotting. Runyan said she has taught the course in the past, but not in Kirksville.

The National Weather Service offers this course every spring

many counties in the northern and western parts of Missouri to build storm awareness, Runyan said.

"Our main responsibility [at the National Weather Service] is to issue watches, warnings and advisories," Runyan said. "But we also produce a forecast that helps us keep current in the weather and better forecast those strong severe storms."

Precautions to take during se-

vere storms differ depending on the type of storm and the type of building in which the person is located.

Residents should have a precautionary plan set in place for approaching thunderstorms, according to the National Weather Service Web site. They should move to the lowest floor of their and find the room furthest from windows and doors. Missouri lies in the area of the

country where tornadoes are most prevalent, known as "tornado alley." They can coincide with other severe weather, such as thunder and hail, so it is important to be prepared for a storm, according to the National Weather Service Web site.

George Amis is a National Weather Service observing program leader at the Pleasant Hill, Mo., office. He said he has not presented the course before but thinks anyone who wants to be aware of tornadoes, flash floods, hail and more should consider attending.

"It would be very important to be cognizant of your surroundings in the situation where there is bad weather on the horizon or in the forecast," Amis said. "So you want to keep in touch, listen to the radio and watch the latest television broadcast."

Amis said his job is to ensure that the information and data presented by the National Weather Service is quality controlled to provide a clear view of the weather situation to northern and western Missouri.

The National Weather Service Web site has more information about the course and where it is offered.

**Watch** – Conditions are conducive to the development of a certain type of storm.

**Warning** – A certain type of storm has been spotted.

**Residence Halls & Off-Campus Housing** – Directions should be posted or provided by landlord

**Trailers** – Find the nearest shelter, such as a public building.

**Public Buildings** – Employees will direct customers to a safe place in the building.

Source: <http://www.nws.noaa.gov/>  
Design by Antionette Bedessie/ Index

## Four Horizons Realty

**Providing affordable student housing for more than 22 years!**

- Boardwalk
- Waterworks
- Park Place

- States Avenue
- St. James Place
- New York Avenue

**703 N. Marion  
Kirksville, MO 63501  
660-665-RENT  
[www.4horizonsrealty.com](http://www.4horizonsrealty.com)**

## Celebrating 31 Years

★ Come By And Visit Us In Our New Retail Store. We Carry Everything From Smoked Meats And Exquisite Cheeses To Pickles And Candies.

★ We Carry U.S. Wellness Grass Fed Beef.  
-Grass Fed  
-Hormone Free  
-Antibiotic Free  
-Endorsed By NY Times  
-30% Fewer Calories  
-Rich In C.L.A

★ We Accept The Truman State Discount Card

★ Our Meat Has No Added Ingredients

**FREE DELIVERY TO KIRKSVILLE MONDAY - FRIDAY**

Toll Free 1-800-456-0250 or Visit Our Web Site  
[www.westerns-smokehouse.com](http://www.westerns-smokehouse.com)  
Hwy 63 North Greentop  
Phone 949-2445  
Monday-Friday 7-5, Saturday 8-4

Just 10 minutes north of Kirksville on Hwy 63