Cat got your tongue?

The importance of the tongue in speech is so well known that the very word is often used as a synonym of *language*, as in *struggling to learn a foreign tongue*. When you are watching someone speak, you can sometimes see the tongue in action, especially with the consonant sounds spelt *th*, when it peeks out between the teeth. However, the work of the tongue in speech is usually hidden from view. This poses a challenge: how can we explain to our students how to articulate sounds when this most important organ of speech can’t be seen?

**A window into the mouth**

The traditional response to the problem of showing tongue position has been the cross-section diagram. This effectively provides a window into the mouth, and can be especially effective for explaining consonants. Such diagrams show where the tongue actually makes contact with another part of the mouth, and it is reasonably easy for students to feel this in their own mouths. For example, a diagram can show that for /t/, the tip of the tongue touches the bump behind the upper teeth – see, for example, Robin Walker’s article in ETp Issue 94. For vowel sounds, however, the traditional cross-section diagram is a lot less effective as there are no concrete points of contact. There is only the shapeless mass of the tongue in subtly different positions. Even if such drawings are anatomically accurate, they are difficult for most people to interpret. People are more used to *feeling* the position of their tongue than *seeing* it.

**Ways into the mouth**

Pronunciation teachers have come up with imaginative ways of explaining tongue positions. For example, to produce the vowel sound in *awe*, we may ask students to imagine they have a whole (small!) apple in their mouth. This can be a better way of explaining that the tongue should be pushed down and back than any cross-section diagram. It helps us to feel the muscular stretching in a way that the cross-section diagram cannot. However, there is no set of such mental images to cover the full range of vowel sounds, as far as I am aware.

**Watch your tongue!**

I decided to represent tongue position for the entire range of vowel sounds, relying more on mental imagery and less on anatomical accuracy. It would be a simple line drawing of a creature which most people would find easy to empathise with, a supple creature, capable of a wide range of body positions – a cat. Below, we see the cat in the position the tongue needs to be in to make the vowel sound in *awe* – an image which does the same job as the apple-in-the-mouth idea above.

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Mark Hancock gives his vowels a feline shape.
Cat got your tongue?

To introduce my students to the idea of the animated tongue, I copy the simple drawing on page 17 on the board. I ask them to identify what it is (a cat) and what it is doing (stretching backwards). It’s a gesture that students can replicate with their arms on the desk in front of them – a lazy stretch. I then ask them to imagine that this cat is their tongue. What would be the equivalent lingual gesture? It would be the tongue stretching itself down and back, as in a yawn. The essential elements in the drawing are the head, paws and body. The head shows which end is the front. The body shows where the bulk of the animal is in relation to the paws – pushing forwards or backwards.

The cats in the corners

It was Daniel Jones who, in the early 20th century, first systematised the vowel sounds into a quadrant with front vowels to the left, back vowels to the right, closed vowels to the top and open
vowels to the bottom. For standard British English, the four extreme corners of this quadrant are shown at the top of page 18. Each vowel sound is shown, along with its tongue cat.

The cats in the left-hand column are stretching forward, while those on the right are pushing back. The cats in the top row are upright, while those in the bottom row are pushing themselves to the floor. Coincidentally, if you say the cat sound miaw slowly, you will be doing an anticlockwise tour of the vowel sounds above, more or less, beginning in the top left corner.

The cats represent the tongue positions, but we should also mention two other important aspects of articulation for these four sounds – lips and jaw. The vowels on the left are pronounced with a wide mouth, while those on the right with rounded lips. Unlike the tongue position, this is easy to see and demonstrate. Sharp eyes may notice that I have attempted to show these lip positions on the drawings.

The vowels in the top row may both be said with the jaw in the same position, while the jaw must be more open to pronounce the vowels in the bottom row. This can be demonstrated by putting a thumb on your chin and the first finger of the same hand on the tip of your nose. If you say, first, a vowel sound from the top row and then a vowel sound from the bottom row, your thumb and finger will move apart, visibly.

The full cat kit
When Adrian Underhill developed his well-known phonemic chart for English, the part of the chart dealing with the simple vowel sounds is an ELT-friendly version of the Daniel Jones quadrant. At the bottom of page 18 is a version of this quadrant, along with tongue cats. I haven’t attempted to represent different tongue-cat positions for the pairs of phonemes in the middle column, since the distinction would be too fine to be visually meaningful.

The cats in the pictures
In order to raise awareness of how the tongue affects vowel sounds, we can ask our students to do tongue-stretching exercises like the cat in the pictures.

- Begin, for example, by asking them to make the sounds along the top row, moving slowly from left to right and back again a number of times to make a long sound like this: ee you we you we you.
- As they are doing this, ask them to pay attention to how their tongue is moving, and to imagine it as the cat in the pictures.

You can do similar exercises for each row and each column in the chart.

These explorations are good for raising awareness of tongue position, as well as lip and jaw movements. However, they do not take account of a further variable – vowel length. The phonemic symbols with two dots are longer, while those without are shorter. At a certain point in your exploration of this tongue-cats chart, you will need to show this. I find it helpful to use hand gestures – make a gesture like pulling taut a length of string between your two hands while saying the long vowels, or a clipped chopping motion while saying the short vowels.

The cat in the middle
Of all of the tongue cats in the chart, the one right in the middle is worthy of special attention. It is neither pushing forward nor backwards, up nor down. It’s a relaxed cat. There is no notable tension in any of its muscles. This is how the tongue must be to say these vowel sounds – totally relaxed, with no tension. The vowel sounds in this middle box are very characteristic of English, and are absent in many other languages. For learners from those language backgrounds, the tongue-stretching explorations described above should help locate the position of the relaxed cat.

Adrian Underhill’s phonemic chart can be found at: www.macmillanenglish.com/phonemic-chart/.

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