

Beyond the Bouba-Kiki Effect Audio Transcript

IRA FLATOW: Time now for a segment we call the Macroscope.

[MUSIC PLAYING]

Last week, Science Friday video producer Luke Groskin strolled to Times Square to ask tourists from all over the world one simple question.

LUKE GROSKIN: OK. Now look at those two images and tell us, which of those is bouba and which of those is kiki.

IRA FLATOW: He had a piece of paper with him. And on that piece of paper were two shapes. One was what you might call a blob with rounded edges. The other was all sharp angles. Think of a starfish with lots of pointy arms. Luke's question for those Times Square tourists was, which of these shapes should be called bouba and which one should be called kiki? The answer is the subject of our latest Macroscope video. And Luke joins us now to talk about it. Welcome, Luke.

LUKE GROSKIN: Hi, Ira.

IRA FLATOW: How is it out there in Times Square with those folks?

LUKE GROSKIN: Well, it was cold and it was really fun and also a little random at times.

IRA FLATOW: Why were you harassing those poor tourists?

LUKE GROSKIN: Well, we wanted to simulate some of the research that's been done looking at why people associate some shapes with sounds. You know, it sounds like a random question with silly nonsense words. But actually, this has been researched since the 1920s, this very concept of taking a sound and a shape and asking people match one to the other.

IRA FLATOW: So the two sounds were bouba and kiki.

LUKE GROSKIN: Bouba and Kiki. That's right.

IRA FLATOW: And you showed them photographs.

LUKE GROSKIN: That's right. That's right. And luckily enough for us, their answers actually mirrored the research itself. 90% said the round one was bouba and the pointy one was kiki. Thank goodness.

IRA FLATOW: And that was true no matter where the person was from.

LUKE GROSKIN: Yeah.

IRA FLATOW: Because there are a lot of tourists in Times Square.

LUKE GROSKIN: Oh, yeah. Yeah. It's all tourists.

IRA FLATOW: It's a great spot to try something out about the world there.

LUKE GROSKIN: Exactly. So we spoke to people from Finland, from Germany, from Singapore, from China, people that their first language was not English. And we didn't show them the spelling of these words. I'm not going to tell you them.

So the study, you don't want to show them the spelling, because that could influence, the typography is round or pointy. So we didn't show them the spelling, and that stands up in the research as well. And in fact, researchers have actually done this with toddlers, kids that don't know how to spell. And the bouba/kiki effect holds up.

IRA FLATOW: Right. And of course, if people don't actually have those sounds in their vocabulary, they can't read them, even if they're written, if they have a different kind of language.

LUKE GROSKIN: Exactly. Exactly. And what was really fascinating was to hear how people could explain this phenomenon. We got a lot of really crazy answers.

SPEAKER 1: This is more softer, so this must be bouba. Bouba sounds like bubble.

SPEAKER 2: Bouba to me maybe a splash. Kiki, I don't know, maybe something shiny like a keyring, you know, that's something rhyme-y.

SPEAKER 3: I think this— it looks like the Nickelodeon splat, the old splat. That's what it reminds me of. But I think this might be bouba. I don't know.

IRA FLATOW: Yeah. It's talking about bouba and kiki with Luke Groskin on Science Friday from PRI, Public Radio International. And it does look like a little bit like that Nickelodeon logo from a while back.

LUKE GROSKIN: It does. I mean, it's fascinating to hear a woman say it's softer. Softer. I mean, it's just a shape. I mean, I don't see how you get bouba softer. It's fascinating to see that.

IRA FLATOW: But the researchers must have some idea of why this happens.

LUKE GROSKIN: Well, the researcher that we spoke to, Kelly McCormick of Emory University gave us three different theories. The first is one that we're all a little bit synesthetic with this notion that we tie an image or visuals to a sound. We hear something and we think of the color green, or we smell something and we immediately think of a concept, or vice versa. And so that's one theory. There's another theory that this is an experiential thing that we've learned to make these associations. So if I take a bowling ball and I roll it on the ground, it's going to make a whoa, whoa, whoa. And that sound— roundness equals a more rounded sound, and so we should call it bouba. And then vice versa, if you take a pinecone, you roll that, you're going to get [CRACKLING]. You're going to get a more poppy, crackly noise.

The third one is that your mouth makes a certain shape when you're making these sounds. So when you say bouba, it's very round, your eyes, everything gets open. And so we should name it something ooh. Oh, so we should associate those things.

And kiki is a little bit more your face becomes more taut. Your eyes become taut. It's more tense. So we should call it something a little bit more tense.

IRA FLATOW: So they don't know which one is the right one. But those are three possibilities.

LUKE GROSKIN: Well, a lot of people think it's a hybrid of all these different kind of theories. And you know, there's no right or wrong answer here. But they have done research where they looked at 570 different nonsense words, trying to narrow in on which one was the most pointed and which one was the most round. And so it's the longest list of nonsense words I've ever seen. And they narrowed it down to the top three for pointedness was kitay and titay were the most pointed. And for rounded was lumo and mumo, which are very— those sound very round. And if you look at the waveforms on those, the actual— when they run them through a machine and you actually look at what those look like, they're very round and very pointed, so it makes perfect sense.

IRA FLATOW: What if I wanted to call the pointy one tiktaz?

LUKE GROSKIN: That's total—

IRA FLATOW: That would work?

LUKE GROSKIN: Yeah. That sounds like titay, doesn't it? That totally, totally works as a pointed word.

IRA FLATOW: What surprises me is that they went all around the world to even cultures that don't— they said these things to them, cultures that have never heard the word or even those kinds of sounds, right? And they all, 90% all agreed—

LUKE GROSKIN: Upwards of 90%.

IRA FLATOW: Upwards of 90—

LUKE GROSKIN: You know, when they went and spoke to bush people in Africa that don't have the Roman English alphabet, they found that it was roughly like 75%. But they brought it to Tamil speakers in India as well and they found that it matched identically the results when they spoke to undergraduates at UC San Diego.

IRA FLATOW: Wow. This is our— its great. It's great video. You can watch the video. You can see for yourself what a bouba and what a kiki look like. It's up on our video at sciencefriday.com. And while you're there, we use our voices to tell others how we feel, no surprise there. But can your voice influence how you feel? We've got the answer at sciencefriday.com/voice. Luke, great to have you back.

LUKE GROSKIN: Thanks, Ira.