

But Why: A Podcast for Curious Kids

Why do pigs oink?

April 8, 2022

Jane 00:21

This is But Why: A Podcast for Curious Kids, from Vermont Public Radio. I'm Jane Lindholm. On this show, we take questions from kids just like you and we find answers. Sometimes you send us questions that seem really simple at first. But when we start peeling them apart, we find so many different layers. Here's an example:

Jacob 00:42

My name is Jacob, and I'm four years old, and I live in Quebec, Canada. My question is, why do pigs do this [pig sound]? Bye bye!

Jane 00:55

Why do pigs make that noise? There are several ways we can tackle that question. One would be to try to figure out what a pig means when it says [pig noise]. Another would be to examine why we translate that pig sound as oink oink when we write or talk about it. Jacob actually made the sound, as you heard. But often, when we talk about what pigs say, we just say "oink, oink." You probably learned that when you were really really young. Like, as soon as we start to talk, our parents love to ask us what animals say, don't they? Dogs say ruff, cats say meow, cows say moo. But I bet your parents didn't teach you what a camel says--at least not if you live in the United States--or a fox. So why do we give words to the sounds of certain animals and not others? And why do we have different words for the same animal noise depending on what language we're speaking? Today, we're going to take Jacob's question and examine it from both of those angles.

Jane 01:59

And on that question of what we say animals say, we actually asked for your help. Lots of you sent us recordings of what animals say in all kinds of languages other than English, and we're going to hear what you told us throughout today's episode. Let's start with cats. In English, we often say that a cat says meow. Here's what you told us cats say in the other languages you speak.

Various Kids 02:24

CAT SOUNDS IN OTHER LANGUAGES

Jane 02:27

was Yanne, Maisyn and Theodore. How about dogs?

Various Kids 02:31

DOG SOUNDS IN OTHER LANGUAGES

Jane 02:50

Those dog sounds came from these kids:

Various Kids 02:52

My name is Mae and I am five years old. My name is Daniel. My name is Shira. My name is Meera. Hannah. My name is Reva. My name is Riya. Sofia. And my name is Devin. Rehan Hi, my name is Brian. Asher. Everett. I'm Marcus and I am three. Clea. Adhi. And my name is Citlali and I'm nine years old.

Jane 03:17

And check out all the languages they were speaking: Dutch, Farsi, Hebrew, Hindi, Indonesian, Marathi, Punjabi, Turkish, Urdu, Vietnamese, Mandarin, Spanish and Telugu.

Jane 03:32

Okay, let's do another. What about frog? In English we might say a frog says croak or ribbit. But here are some other options:

Various Kids 03:42

[Kids explain how to make frog noises in other languages.]

Jane 04:20

Those frog noises came from:

Various Kids 04:22

My name is Ellie. Hello, my name's Gael. Felipe. My name is Emma. My name is Iris. This is my five year old sister Tanan. Say hi, Tanan. Hi!

Jane 04:34

All right, we got to do one more, one more animal.

Kavan 04:36

My name is Kavan. And in Gujarati goat says bey bey.

Jane 04:43

And in English we would say a goat says "mehhh." Why do we have all those different ways of explaining animal noises? It actually says more about our languages and cultures than about the animals. After all, they don't speak our languages. We wanted to know a little bit more. So we reached out to someone who actually studies this kind of thing.

Arika Okrent 05:04

My name is Arika Okrent and I'm a linguist and I write about various subjects in language in a way that I hope more people can understand.

Jane 05:05

Erica, what is a linguist?

Arika Okrent 05:18

A linguist studies language by looking at what people actually do, not what people should be doing or how they should be talking, what's correct or incorrect. They look at people in the world using language and try to determine what they do and what that says about how humans work and how our minds work.

Jane 05:41

So you're not like a Spanish teacher, or Hindu teacher. You're not going to teach me a language. And you're not a speech therapist who's helping me make sure I can say my words correctly. You're somebody who studies language and how we use it and why we use it the way we do, kind of.

Jane 06:01

Yes, sort of in the way that a geologist looks at rock formations and says, you know, here's what they look like. And here's what that means about history. And here's what that means about chemistry, just by looking at the thing in the world. So linguists are looking at language in the world and how people use it.

Jane 06:22

I asked Arika why we give different words to animal sounds in the first place. After all, a dog doesn't really go ruff ruff, or guau guau; it goes [dog sounds]. And a pig doesn't go oink oink. It makes us sound like [pig sound]. So why don't we just make those sounds? Why do we instead give them words like ruff ruff or oink oink?

06:46

We are giving a name for the sound, which is...it's a difficult concept because we understand that we have words for things out there in the world. So you see something and you it has a word that's a house, or that's a picture or that's a bag, whatever it is. We realise that the word itself doesn't look like the thing we're talking about. But when it comes to sounds, when we name a sound, we have the expectation that it should sound like the sound. And in some ways that does--we have a word "beep". And that kind of sounds like a beep. But it's not exactly the same. It's not [horn sound] or whatever an actual beep sounds like because we've given it a name. And when we do that, when we give a sound a name, we're restricted to what our language can do, and what it is allowed to do. And there's a million sounds that the human voice can make. But languages only use a subset of those. And different languages use different subsets of those. So English has these sounds, and French has those sounds and different languages take advantage of different human sounds. And that's what we have to use when we give a name to a sound. So they're going to be different in different languages.

Jane 08:17

So like in English, you might say a bird says tweet tweet. And in Spanish, you might say it says pio pio. And you can hear, even in the way I'm using my voice and raising it up high, I'm kind of making the sound of a bird but it's different from those two languages. In a case like that, is it mostly just that's what people kind of chose and copied each other? Or is that about what our languages tell us we can do as well?

08:46

Well, when you're saying it in a more colourful manner and you can say, tweet, tweet or cheep cheep and you can sound like the bird. But I can also say, "Oh, that bird was tweeting all morning." In which case, it doesn't sound at all like the actual sound. It's now just the label for that thing that birds do.

Jane 09:07

Speaking of birds, let's hear how you talk about birds in your languages.

Various Kids 09:13

KIDS EXPLAIN HOW TO MAKE BIRD SOUNDS IN OTHER LANGUAGES

Jane 09:35

It's kind of interesting that crows get a specific noise. When for lots of other birds, we lump their sounds together and just say they're tweeting. I asked Arika, if we weren't writing things down, would we need to have words for these sounds? Like if we were just speaking, I could say "The pig went [pig noise]. But I don't know how to write [pig noise]."

09:57

Yeah, we would still have those words. Languages that aren't written have names for sounds too. Because when I'm in a conversation with you, it takes a lot to sort of stop and go [pig noises]. Like that's not in the normal stream of speech and it takes a little extra effort. And we want to be able to speak in the language we're using and stay in that zone while we're talking. So we, it's good to have words that let us do that from within the limitations of the language.

Jane 10:28

Do you think there is a named sound for every animal, even animals that don't really make sounds?

10:36

No. If the animal doesn't really have cultural importance, then we don't really need a sound for the sound that it makes. So in Turkish, they don't have a pig sound. Because in the culture, the pig is not in, it's not in farms, and these sort of settings that children's books will be about or children's songs will be about, because it's just not an element of the culture. And we don't have sounds for what sound does a sloth make, or I don't know, I don't know if they even make sounds. But it's not something that's in the culture as going down to the farm and hear what all the animals say, or going into the woods and hearing what the animals say. It has to have some place in the culture to be important enough to have a word to talk about that sound.

Jane 11:35

So in fact, when we talk about animal noises, and we know that word, that we know oink means a pig. And if you speak English, you probably know oink is in reference to a pig, that, in some ways, says a lot more about our culture than anything else. It's what we think is important to name that gets a name for the sound that it makes.

11:58

Yes. And it's something that's either in the stories that we tell, or in the things that we talk about with each other. It's it's gotta have a reason to be given a word. And that's true, not just for animal sounds, but for everything. We have the words we have because they're a shorthand way of referring to the thing we want to talk about. And different languages have different words that that don't always match, that don't always directly translate from one to the other because it's not something you need this abbreviated way of referring to, and that's what a word is.

Jane 12:38

While we had Arika, we asked for her favorite animal noise in another language.

12:43

Well, I like the word and the thing that a horse does in Danish is vrinsk. It's I can't even say it. It's V-R-I-N-S-K, vrinsk. And that's very different from a neigh, or what I would think a horse would say. But I can, I can see, okay, a horse, yeah, that can match my idea of what an actual horse says. And it just shows that there's a lot of flexibility in how we can represent what an animal does, and it can use these strange combinations of sounds that English doesn't use.

Jane 13:19

Cool. Speaking of horses, here are a few other names for [horse sound].

Various Kids 13:32

[KIDS DESCRIBE HORSE NOISES IN OTHER LANGUAGES]

Jane 13:38

Coming up, we'll tackle the other way of answering that original question. We'll learn a little bit more about what animals might be saying when they make their various noises. Stay with us.

Jane 13:48

This is But Why: A Podcast for Curious Kids. I'm Jane Lindholm. We're learning about the noises that animals make today. We just learned a little bit about why we use different words and sounds to describe what animals say, depending on what language we humans are speaking. Let's hear a few more examples of what you've told us about how you express animal sounds in the languages you speak. Now, in English when we think about hens, female chickens, we often say cluck, cluck. But in other languages hens sy:

Various Kids 14:20

[KIDS MAKE DUCK SOUNDS IN OTHER LANGUAGES]

Jane 14:27

That was a Ayuna speaking German, Hannah speaking Indonesian, Michayla speaking Mandarin and Alex speaking Portuguese. Here's another one!

Thomas 14:36

Hello, my name is Hector. And I speak Mandarin and English. Sheep, [sheep noise], yang, [sheep noise].

Jane 14:46

Okay, so how we describe animal noises in different languages is very cool. But remember that original question we're trying to answer today?

Jacob 14:54

Why do pigs do this [pig noise]?

Jane 14:56

We said we'd also try to get to the heart of what a pig might actually mean when it makes that noise. And we can talk about other animal communication, too. Did you know there's actually a field of science that looks at the vocalizations of animals and tries to work out their meanings? We found someone to explain that to us.

Elodie Briefer 15:14

So I'm Elodie Briefer and I'm an associate professor in animal behaviour at the University of Copenhagen. So I basically study how animals behave, what they do, and mainly how they communicate. So what do they tell each other.

Jane 15:30

The field that Elodie studies is called bioacoustics,

Elodie Briefer 15:34

Bioacoustics is the study of sounds made by nature, let's say. So we we study how animals make sounds, how they produce sounds, which information we can find in their sounds, how they react to the sounds, do they actually differentiate between different sounds?

Jane 15:55

So let's get to our original question. Two of you have you had a question about pigs a lot like Jacob's.

Various Kids 16:01

Hi, my name is Dominic. I'm eight years old, and I live in Portland, Oregon. And my question is, why do pig snort? My name is Henry, I am six years old, from Katona, New York. Why do pigs snort?

Jane 16:17

Elodie has been working with pigs. She and her team are studying the noises pigs make in certain situations, and whether those sounds are positive or negative.

16:28

So pigs, basically yeah, they can have these grunts [makes pig noise]. Which is contact more of a contact role, so to keep in touch with the others. And that will usually be when they are...like it can be in a positive state or negative emotion, it could be in positive emotion. So here that would be, for example,

happy or excited. Or it could be a negative emotion, for example, isolated, [pig sounds in background] when they're not happy. And then when they get stressed because there are for example, isolated like a piglet being isolated from its mother or cannot find its mother anymore, [piglet sound] or is trying to fight piglets fight a lot too, for accessing the mother. [Piglet sound] If they cannot, and they fight, then they might reach this, [piglet sound] this really high pitch sounds. So the high pitch sounds more indication of negative states. So they're not really happy.

Jane 17:25

Is that true for adult pigs, too? Do they make that high pitch sound if they're unhappy?

17:29

Yeah, they do the same sound as the piglets and the high pitch ones would be mostly usually when they're not happy. [pig sound]

Jane 17:37

To figure this all out, Elodie and her fellow researchers recorded the noises pigs were making, while they also watched what those pigs were doing. So they could see whether the pigs seemed to be happy, like maybe they were eating or running around normally, or whether they were distressed or in a negative situation. Like if they had been isolated from the other pigs, or if they felt like they were in danger. Then the human team took all of that information and put it together on a computer to try to make sense of it.

18:06

So the main thing we found is that when pigs are in a positive context, so let's say happy, their grunts and squeals and screams even are shorter than when they are in a negative emotion.

Jane 18:19

Farmers who have maybe just a few pigs and who take care of their pigs really well, probably know, generally speaking, when their pigs are making sounds that seem happy or unhappy. But from their research, Elodie and her team created a computer program, an algorithm, that can tell, with almost total accuracy, whether a sound is from a happy pig or an unhappy pig. Now they can use that research to create an app, a program that might work on a phone or a computer, that could tell a farmer whether their pigs are doing well or not doing well. So if the farmer isn't in the barn, they could still get an alert if their pigs are unhappy. And that's important because we want pigs, even if eventually they're going to become food for humans, to have a good life while they're on the farm.

Jane 19:08

But this app won't exactly translate pig speak into human speak. I asked Elodie if she thought we ever could develop an app where maybe a human could talk into the app in whatever human language we're speaking, and then the app could translate that into pig sounds that the pig could understand, so we could actually speak to the pigs.

19:26

Yeah, I mean, I have colleagues also working on synthesising sounds that sound actually really good, like really natural, even complex sounds. So you can think about it in the future. But I mean, of course, you will have to speak pigs. As they do that you won't be able to translate everything you want to tell the pigs, but you could speak to them in emotions at least, or in something that will be can relate to.

Jane 19:50

Right, because if I said "What do you think the meaning of life is?" The pig might be like, "[pig noise] I don't even know what you mean." But if I said, "[pig noise] Food here," that might be be able to be translated into pig talk.

20:01

Yeah, we might actually find out that pigs have a knowledge about what's the meaning of life with their own words.

Jane 20:09

Wouldn't it be cool if pigs could tell us the meaning of life? In the meantime, do you want to know how we describe what pigs say in various languages? Of course in English as we've been saying, all throughout this episode, we usually say that pigs say oink, oink. Here are some other choices.

Various Kids 20:25

[KIDS DESCRIBE PIG WHAT PIGS SAY IN OTHER LANGUAGES]

Jane 20:51

Elodie Briefer has looked at how other animals communicate, too. Many animals produce different sounds depending on whether they're in positive or negative situations, like we heard about with pigs. Elodie says these studies have been done for horses, goats, sheep and cows and chickens. She has also studied the communication of a type of bird called a skylark.

21:13

[skylark sounds] It's one of the rare birds that sing in flight. It's very difficult; they have to sing while they fly. And they have extremely long song. They can sing up to 40 minutes. And their song is also very complex.

Jane 21:26

So the songbirds that are singing for up to 40 minutes while they fly, have such distinct patterns that Elodie says they have their own dialects depending on where they live.

Jane 21:37

Do you know what a dialect is? Within one language, let's say English, we're all speaking the same language, but we might not only have different accents (the way we pronounce words), but even different words, different vocabulary, that we use to communicate. So even though you speak English and I speak English, we might not speak exactly the same English if we've grown up in different places or cultures.

Jane 22:02

For example, if you want a sweet fizzy drink, what would you call that? I would probably call it a soda, but you might call it pop, coke (even if it's not Coca Cola), you might call it a soft drink, or a fizzy drink, or maybe something else. Different regions, and sometimes different cultures have different dialects within one large language. And Elodie says skylarks are the same way. They have different sounds and different patterns, depending on what fields they call home. She used computer programming to help her figure this out. And then she actually played back various songs to the birds to make sure they really were speaking--or tweeting--different dialects.

22:44

Once I find that there is dialect, I go in and ask them, "Is it really your dialect? Do you use it?" So I, we do play back experiments. We go with the speaker and then we play the sounds to the animals. So I've done many things playing sounds from a different, a male of a different place. I've also tried to mix up the different units in the sentence to see if they still recognize it. And actually they don't. So once you mix these tiny units up randomly, it actually they don't recognize it as the proper sentence, as the dialect anymore.

Jane 23:19

Well, that's kind of like humans. Like if I said, "It's a beautiful day outside. The sun is shining," you would know what I was saying. But if I said, "Shining sun day beautiful is, right?" that would be confusing. So it's kind of like that.

23:32

Yeah, but maybe people somewhere else actually, that's how they speak and they would understand you. Yeah.

Jane 23:39

We gave Elodie some of your questions about other animal noises.

Abigail 23:43

Hello, my name is Abigail. I'm from Somerville, Massachusetts, and I'm 10 years old. And my question is why do roosters cockadoodledo in the morning?

23:57

In French would say cocorico. I'm not an expert in in chicken but they usually, I think it's mostly the the male rooster will call to, when the sun rises and advertise himself to the ladies. Chickens can have all kinds of interesting calls. Also they do a, they call to advertise when there is food. So they would say, "There is food here." And they have a food call, which is quite rare in animals. And some researchers, early researchers in bioacoustics, have have actually found that roosters would make this sound to attract the hens, even when there is no food.

Jane 24:39

Oh, they'll say "There's food here," but then there's no food so then the hens come running? Oh, that's cheating. That's mean.

Elodie Briefer 24:46

Exactly. Yeah.

Jane 24:48

Do you remember what LOD says roosters say in French? Not cockadoodledoo. Here's Lysandre with a reminder.

Lysandre 24:55

I'm six and this is how you do rooster sound: cocorico!

Various Kids 25:12

And here are some other rooster sounds.

Various Kids 25:44

[KIDS EXPLAIN ROOSTER SOUNDS IN OTHER LANGUAGES.]

Jane 26:19

Wow, I love all of those rooster calls! What about ducks? Let's do ducks.

Various Kids 26:24

Quack, quack, calm, calm, calm, quack, quack.

Jane 26:28

Those came from Esmee and Saima in French, and Dahlia in Hebrew. Three-year-old Everett in Illinois actually has a question about ducks, and volume.

Everett 26:38

Why do ducks make loud noises?

26:44

Usually, animals make very loud noises when they want to push away other animals. So maybe they're being attacked by another animal and they want to push them away, or they want to defend food. Or it might be when they're trying to attract others when they want to...males are trying to attract the females or vice versa, when they try to communicate.

Jane 27:03

We have another question from Honor, who is six. And Honor wants to know: do cows make a different amount of mos to say a different word?

27:12

I would say not exactly. But the duration of the moos, they might make longer moos depending on their emotions.

Jane 27:19

So it's kind of like if I use the word hey, I could say that in really different ways to mean different things. Like if I was worried or scared or you're coming too close to me, or I was angry, I might say, "HEY!" But if I just saw you and I hadn't seen you in a long time, I might say "Hey!". Or, if you were doing something I didn't like I might say, "Hey." And so we as humans, it's all the same word, but you can kind of interpret what I'm feeling and thinking based on the tone I use, even though I'm just saying the same word.

Elodie Briefer 27:49

Yeah, that's exactly the same. So they, many farm animals I have been studying, so they have maybe one kind of call like the the moo or the the goats bleats or the sheep bleats. It's just one call, but then they will produce it differently depending on whether they are more in a positive emotions, like might be happy, or if they're in the negative emotions, maybe they're frustrated or something like that.

Jane 28:11

Moo is a funny word. So let's hear if cows say equally funny things in other languages

Various Kids 28:22

[KIDS MAKE COW SOUNDS IN OTHER LANGUAGES]

Jane 28:27

We heard there from Alex, Ellie, Janne, Vera, Maisyn and Zhaoyuan. We're just about done for this episode, but I can't leave without sharing just a couple more animal noises you sent us

Various Kids 28:39

[KIDS MAKE MOUSE SOUNDS IN OTHER LANGUAGES.]

Jane 28:55

I'm not even sure what I would say a mouse says in English. What do you think mice say in English? Maybe squeak squeak? And we have one last animal before we go.

Emmett 29:06

I'm Emmett. The sound of a bee is [bee sounds] in Mandarin, Chinese.

Jane 29:16

That's what all the buzz is about. Thanks to Eodie Briefer at the University of Copenhagen. She's the one that told us all about what animals might actually be meaning when they make their sounds. And thanks to Akrika Okrent, the linguist we heard from at the beginning of the episode, who helped us understand why we use different words to describe the same animal sounds. She's written a book about language. It's called, "Highly Irregular: Why Tough, Through and Dough Don't Rhyme, and Other Oddities of the English Language". And thank you so much to all of you multilingual multi-language speaking kids who sent us your words for animal noises. I am so impressed with all of you.

Jane 30:01

Now, if you're one of the kids who only speaks English, now is a great time to start learning another language. Even if English is the only language spoken in your home, and even if you don't have language classes available at your school, you can ask an adult to help if you'd like to learn another language. And together, the two of you can learn about language learning apps, online books and audio tapes or videos at your local library, or maybe you could identify a friend or neighbor who can teach you at least a few words in their other language.

Jane 30:34

And as always, if you have a question about anything, silly or serious, get an adult to help you record yourself asking it. It's easy to do on a smartphone voice recording app. Then you can have your adult email the file to questions@butwhykids.org We love hearing what's on your mind, even if we can't answer all the really fabulous questions we get from you. But Why is produced by Melody Bodette and me, Jane Lindholm, at Vermont Public Radio. And our show is distributed by PRX. Our theme music is by Luke Reynolds. We'll be back in two weeks with an all new episode. Until then, stay curious!