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HOST: Children's learning begins in the home - and the language spoken in the home is fundamental to a young child's education. So, should parents be raising children with more than one language? And what are the benefits of children being bilingual? On International Mother Language Day, we celebrate linguistic diversity.

Welcome to The Conversation Piece.

KRISTA BYERS-HEINLEIN:

Hello. My name is Krista Byers Heinlein. Four years ago, my daughter Julia was born. I speak English and her dad speaks French, so we decided we'd raise her bilingual. And I have to say the stakes were pretty high. First, because I'm like every parent I want what's best for my child. But second, because as it happens, I'm a developmental psychologist who studies how babies grow up bilingual. And, as my husband pointed out, if Julia didn't turn out bilingual, there goes my credibility in my research.

I wanted to understand how we can help babies to become proficient, vibrant bilinguals. And this is important to families like mine. A quarter of the families, raising young children in cities like Toronto, Vancouver, Montreal, and Ottawa. Do these babies have what it takes to turn, to learn two languages? Would Julia and other babies like her be confused?

And how can we actually know what babies know? Right? So, turns out that some of the usual ways that psychologists do research don't work very well with babies. I've tried questionnaires - they just eat them. Getting them to press computer buttons - their fingers are too small.

No, to figure out what babies know, we need to take advantage of their natural, natural behaviours and reactions. So, luckily young babies really suck, literally suck. And in one study, we use that to figure out if newborn babies could tell two languages apart. So, just like you can train a little mouse to press on a bar, to get a food reward, you can actually train a newborn baby to suck on a pacifier, to get something that they find rewarding, like the sound of a human voice. So that's exactly what we did.

Every time babies in our study sucked on the pacifier, we played them a sentence in English. And at first, they were really excited. They sucked a lot. But after a few minutes, they kind of got bored with hearing the same language over and over, and they suck less and less. And when that happened, uh, we



switched the language. So, we started playing a different language like Filipino, the babies increase their sucking. They were excited to hear something new. The babies were only two days old, still in the hospital, but already they could tell two languages apart.

We can also use baby's looking patterns to tap into their knowledge. For example, we can show them pictures of different objects on a screen and measure their looking, using an automatic tracker. We show them a ball and a dog, and they hear something like, "look at the dog." If they look longer at the dog than the ball, it suggests that they understand the word "dog."

In one study with bilingual babies we also played sentences like, "look at this." Yeah. So, so still naming the dog, but switching the language in the middle of the sentence, bilingual toddlers, who were only a year and a half old and adults for that matter were a bit slower to understand the sentence when there was a switch in it. And their pupils actually widened in surprise. This suggests that synonyms like dog and sham are not interchangeable to these bilingual toddlers. They actually notice that different words come from different languages.

Our research has shown over and over that bilingual babies are not confused by learning two languages. They can tell them apart from birth and know that different words come from different languages. But that doesn't mean that it's straightforward to grow up bilingual.

What can we do to support these babies language development? Well, we know that infants learn language through listening. Babies need to hear high quantity, high quality language, and unfortunately sticking your baby in front of a Mandarin YouTube video. Isn't going to cut it. Babies learn best from real people who interact with them. A common myth is that a one person, one language strategy is the best way to raise a bilingual. And that approach certainly works well in some families. But what seems to be the most important is how much babies hear each language rather than who speaks what, and we don't exactly know what enough is, but it's probably somewhere around 25% of the time. So, for a typical baby, this will be about 20 waking hours a week in each language. We also know that kids need extra emphasis on minority languages, that they won't hear spoken in. The wider community.

As bilingual babies grow into toddlers, grow into children. We need to have realistic expectations about what bilingual development looks like. Bilinguals are not two monolinguals in one person.

Another common myth about early bilingualism is that bilingual children are delayed in their language development. But actually we know that bilingual



babies learn language just as fast as monolingual babies or maybe even faster. The trick is that they have twice as much to learn. So, take vocabulary size, for example, by one and a half years, the average child can say about 50 words, whether they're monolingual or bilingual. But the monolingual will know, 50 English words while the bilingual will only know 25 English words because they also know 25 French words.

The good news is that helping bilingual babies does not require anything fancy or expensive. Living better for babies comes from high quality everyday interactions with us, whether that happens in one language or two.

And what about my bilingual baby? Julia, who's now four years old. Well, I'm happy and professionally relieved to tell you that she is now fluent in both French and English. And she knows lots of other bilingual four-year-olds in Montreal who speak all sorts of different languages. The other day, she was speaking French with her friend, Stella, who also speaks Italian. I suggested they could do a little language exchange. Julia leaned into Stella and explained in English, "there are two ways to say Bonjour in English: "hello" and "hi." And that's when I knew my bilingual baby was all grown up. Thank you.

HOST: Krista Byers-Heinlein is a developmental psychologist and associate professor of Psychology at Concordia University who spoke at The Walrus Talks Living Better in 2019 and she's just one of the over 800 brilliant Canadians who have walked, wheeled and webcammed on to a stage at The Walrus Talks.

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