

Faculty for Medicine, Health and Human Sciences

To Sing, We Listen

We often sing together: the school anthem, "Happy Birthday", or before a sports game. When we sing together, we often sing the same tune, the same words, in the same timing as all other singers. And this is for good reason!

What do you think would happen if everyone sang something slightly different?



These language games will help you find out how tricky it can be to sing together as a group if you're not actually singing the same thing! This will also show how special singing together actually is.

Do you want to know more before you start playing the games? Go straight to The Science on the next page!

THE GAMES

The games go from low-tech to hightech. The high-tech games may be more suitable for older children.

1. SING A ROUND TOGETHER

2 or more players; in person

- 1. Choose a song that can be sung as a round (some examples <u>here</u> and <u>here</u>)
- 2. Start by singing the song together. This should be easy!
- 3. Now sing the song as a round (one person starting every phrase). This is tough!

Who wants to sing what everyone else is singing? And who is good at sticking to their own tune and words?

2. SING A SONG ON VIDEO CALL

2 or more players; online

- 1. Choose a song that you all want to sing.
- 2. Let everyone sing the song one by one. This should be easy!
- 3. Now try to all sing the song together, at the same time. Does this work?

Singing together is disrupted by delays, which are more likely with larger video calls. So: invite your whole class or family!

Do you want to see how big the delays are?

4. When you sing together, let everyone direct themselves (like a director) in sync with their own rhythm.

3. MAKE AN ONLINE CHOIR

2 or more players; online

Would you like to sing together in the digital age? With some technical skill you'll be able to sing in sync again!

- 1. Choose a song you all want to sing.
- 2. Let everyone practice singing the song to a metronome set at the same speed.
- 3. Make an audio or video recording of every singer singing the song by themselves and save each song to your computer (for example using Zoom).
- 4. Open an audio or video editing program that lets you open multiple recordings in the same file (for example Audacity or iMovie).
- 5. Open the recordings of two singers and shift them around until they are exactly in sync.
- 6. Now add a third singer and do the same.
- 7. Add all recordings until you have an online choir.
- 8. Save the file.

You've done it! Singing together in sync in the digital age is possible after all



THE SCIENCE

Why is it so difficult to sing together when everyone is singing at a slightly different time?

Whenever you sing, you are also listening. If the other person is slower or faster than us, we immediately adjust by slowing down or speeding up. These adjustments help us sing together.

Such adjustments cause problems when we are singing a round or singing in a video call with delays. Your ears are telling you to speed up or slow down. Even if you know that you shouldn't pay attention, part of you will automatically start singing the same as the others.

In a round, this means that you will forget about your own part and sing along with someone else. On a video call with delays, everyone will wait for everyone else, and it becomes impossible to sing a song together!

So that is the silver lining: sometimes when you cannot sing a song together, that's because you're listening so well!

CAN YOU SHARE THE FUN?

The Child Language Lab would love to hear or see examples of your family playing one of these games. Can you record one of your songs and share on the Child Language Lab Facebook page:

www.facebook.com/CLLMQ

You can see examples of Child Language Lab members having a go at these games on Facebook too!

MEET THE TEAM!

This worksheet was developed by <u>Titia</u> <u>Benders</u>, one of the Child Language Lab's Deputy Directors. Her work includes how babies learn language from songs. It was checked by <u>Isabel O'Keeffe</u>, whose PhD research was about multilingualism and songs in western Arnhem Land (Northern Territory). Leanne Trinh, a third-year student in the <u>Bachelor of Speech, Hearing</u> and <u>Language Sciences</u> who is completing an internship in the lab, chose the pictures and fixed the layout. They hope you enjoy the result!

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The Child Language Lab studies the process of child language acquisition. Our goal is to understand the nature of language development in children in order to inform theories of language acquisition and more targeted language therapies, providing an evidence base for health and education policy.

POPULATIONS: Our research group studies language development in infants, monolingual and bilingual children, children with hearing loss and children with language delay.

TOPICS: We focus primarily on issues at the phonetics/phonology/morphology interface, including the acquisition of grammatical morphology and language processing more generally.

METHODS: We do our research with specifically designed tasks to gather behavioural and neurological evidence of children's developing language abilities in both comprehension and production. Our methods include: behavioural speech perception and production tasks, eye-tracking, EEG/MEG (KIT-Macquarie Brain Research (MEG) Laboratory), various standardised tests of language, working memory, cognition and executive function

MAIN RESEARCH AREAS:

- Hearing loss: What are the challenges faced by children with hearing loss when it comes to language, communication and listening effort?
- **Bilingualism**: How do bilingual or second language learners acquire language? What are their unique strengths and challenges in language processing?
- **Production/speech planning:** What are the factors that determine how children produce sounds, words, morphemes, prosody and sentences, and how does this change over time?
- **Perception/comprehension/processing:** When are children able to recognize sounds, words and morphemes, and predict what's coming next in the sentence?

FIND OUT MORE:

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