

Turn-taking in communication may be more ancient than language

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The central use of language is in conversation, where we take short turns in rapid alternation, a pattern found across unrelated cultures and languages. In the December issue of *Trends in Cognitive Sciences*, Stephen Levinson from the Max Planck Institute for Psycholinguistics reviews new research on turn-taking, focusing on its implications for how languages are structured and for how language and communication evolved.

When we speak, we take turns responding to each other. The speed of response (about 200 milliseconds on average, about the same time as it takes to blink) is astonishing when we appreciate the slow nature of [language](#) encoding: it takes 600ms or more to prepare a word for delivery. This implies a substantial overlap between listening to the current speaker and preparing our own response. Levinson reviews research focused on this overlap of comprehension and production, and points out that this double-tasking may have systematic effects on language structure: it may motivate the compact clause found in all languages and the inferential reasoning that allows much to be meant by a few words.

In human [infants](#), turn-taking is found in the 'proto-conversations' with caretakers, appearing around six months of age, long before infants know much about language. These infant-caretaker interactions are initially adult-like in terms of how fast infants can respond. But as they develop into more sophisticated communicators, infants' turn-taking abilities slow down, likely due to both learning more and more complex

linguistic structures, and having to find a way to squeeze these into short turns. Turn-taking is also exhibited in all the major branches of the primate family—partly innate and partly learned in some monkeys, just as with human infants. Even our nearest cousins the great apes take alternating turns in gestural communication, despite having a less complex vocal channel.

All of this suggests that humans may have inherited a primate turn-taking system. This may have started out as a gestural form of communication, as with the other great apes, then later (about 1 million years ago) became one primarily expressed through the vocal channel. If language complexity developed within a pre-existing turn-taking system, it might explain why so much complexity is crammed in such short turns with such short gaps between them, and also why infants struggle with responding with complex structures at adult-like speeds.

More information: Stephen C. Levinson. Turn-taking in Human Communication – Origins and Implications for Language Processing, *Trends in Cognitive Sciences* (2015). [DOI: 10.1016/j.tics.2015.10.010](https://doi.org/10.1016/j.tics.2015.10.010)

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