

# Elephants know what it means to point, no training required

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"By showing that African [elephants](#) spontaneously understand human pointing, without any training to do so, we have shown that the ability to understand pointing is not uniquely human but has also evolved in a lineage of animal very remote from the primates," says Richard Byrne of the University of St Andrews, noting that elephants are part of an ancient African radiation of animals, including the hyrax, golden mole, aardvark, and manatee. "What elephants share with humans is that they live in an elaborate and complex network in which support, empathy, and help for others are critical for survival. It may be only in such a society that the ability to follow pointing has adaptive value, or, more generally, elephant society may have selected for an ability to understand when others are trying to communicate with them, and they are thus able to work out what pointing is about when they see it."

Byrne and study first author Anna Smet were studying elephants whose "day job" is taking tourists on elephant-back rides near Victoria Falls, in southern Africa. The animals were trained to follow certain vocal commands, but they weren't accustomed to pointing.

"Of course, we always hoped that our elephants would be able to learn to follow human pointing, or we'd not have carried out the experiments," Smet says. "What really surprised us is that they did not apparently need to learn anything. Their understanding was as good on the first trial as the last, and we could find no sign of learning over the experiment."

Elephants that were more experienced with humans, or those born in captivity, were no better than less-experienced, wild-born individuals when it came to following pointing gestures. Byrne and Smet say it is possible that elephants may do something akin to pointing as a means of communicating with each other, using their long trunk. Elephants do regularly make prominent trunk gestures, but it remains to be seen whether those motions act in elephant society as "points."

The findings help to explain how it is that humans have been able to rely on wild-caught elephants as work animals, for logging, transport, or war, for thousands of years. Elephants have a natural capacity to interact with humans even though—unlike horses, dogs, and camels—they have never been bred or domesticated for that role. Elephants seem to understand us humans in a way most other [animals](#) don't.

"Elephants are cognitively much more like us than has been realized, making them able to understand our characteristic way of indicating things in the environment by pointing," Byrne says. "This means that pointing is not a uniquely human part of the language system."

**More information:** *Current Biology*, Smet et al.: "African elephants can use human pointing cues to find hidden food."

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