

# Pigeons can do it ! (?)

**Stop everything! It turns out pigeons can read**

Don't underestimate the pigeon -- they might look a bit dim but it turns out these birds can actually read.

Lead story

## New Research shows Pigeons can be taught to Read, just like Humans

*The pigeon can learn to distinguish between real words and non-words by looking at the letter combinations*

AMERICA

### Can Pigeons Spell? New Study Suggests They Can Recognize Words

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#### SCIENCE

## If You Can Read This, You May Be A Pigeon

Some birds, it turns out, can be taught to read. Or at least spell-check.

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A novel theory suggests that orthographic processing is the product of neuronal recycling, with visual circuits that evolved to code visual objects now co-opted to code words. Here, we provide a litmus test of this theory by assessing whether pigeons, an organism with a visual system organizationally distinct from that of primates, code words orthographically. Pigeons not only correctly identified novel words but also display the hallmarks of orthographic processing, in that they are sensitive to the bigram frequencies of words, the orthographic similarity between words and nonwords, and the transposition of letters. These findings demonstrate that visual systems neither genetically nor organizationally similar to humans can be recycled to represent the orthographic code that defines words.

# Pigeons can do it ! (?)



## Orthographic processing in pigeons (*Columba livia*)

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**Learning to read involves the acquisition of letter–sound relationships (i.e., decoding skills) and the ability to visually recognize words (i.e., orthographic knowledge). Although decoding skills are clearly human-unique, given they are seated in language, recent research and theory suggest that orthographic processing**

**An open question is whether animals with brain architectures and visual systems dissimilar to primates also display this sensitivity to the statistical properties of words. Indeed, the recycling hypothesis has been built with our brain in mind and, more specifically, the hierarchical organization of the ventral visual system.**

