

Ear-witness precision: Congenitally blind people have more accurate memories, research finds

April 29 2013



(Medical Xpress)—Researchers from the University of Bath have found that people who are congenitally blind have more accurate memories than those who are sighted.

[Distortions](#) and illusions within [human memory](#) are well documented in scientific and forensic work and appear to be a basic feature of memory functioning.

Yet several studies suggest that blind individuals, especially those without any visual experience, possess superior verbal and [memory skills](#).

The researchers from the University's Department of Psychology ran memory tests on groups of congenitally blind people, those with late onset blindness and sighted people, in collaboration with a research assistant at Queen Mary University of London.

Each participant was asked to listen to a series of word lists and then recall the words they heard. Past research has found that such words lists normally cause people to falsely "remember" words that are related to those heard, but that were never actually experienced. For example hearing 'chimney', 'cigar', and 'fire' can prompt some to produce a false memory of the word 'smoke' when asked to remember the list of words.

The researchers found that not only did the congenitally blind participants remember more words but were also less likely to create [false memories](#) of the related words. In contrast, the sighted and late blind participants remembered fewer words and were much more likely to falsely remember the related words that were not read to the participants.

Dr Achille Pasqualotto, postdoctoral researcher and first author of the study, said: "We found that congenitally blind participants reported significantly more correct words than both late onset blind and sighted people. Most of the congenitally blind participants avoided unrelated words, therefore congenitally blind participants can store more items and with a higher fidelity."

Dr Michael Proulx who led the study added: "Our results show that [visual experience](#) has a significant negative impact on both the number of items remembered and the accuracy of semantic memory and also

demonstrate the importance of adaptive neural plasticity in the congenitally blind brain for enhanced memory retrieval mechanisms.

"There is an old Hebrew proverb that believes the blind were the most trustworthy sources for quotations and that certainly seems true in this case. It will be interesting to see whether congenitally [blind individuals](#) would also be better witnesses in forensic studies."

The researched is from the paper "Congenital blindness improves semantic and episodic [memory](#)," published in the journal *Behavioural Brain Research*.

More information: www.sciencedirect.com/science/.../S016643281300079X

Provided by University of Bath

Citation: Ear-witness precision: Congenitally blind people have more accurate memories, research finds (2013, April 29) retrieved 3 May 2024 from <https://medicalxpress.com/news/2013-04-ear-witness-precision-congenitally-people-accurate.html>

| |
|--|
| <p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p> |
|--|