

Face processing slows with age

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Identifying a face can be difficult when that face is shown for only a fraction of a second. However, young adults have a marked advantage over elderly people in these conditions. Researchers writing in the open access journal *BMC Neuroscience* found indications that elderly people have reduced perception speed.

Guillaume Rousselet, from the University of Glasgow, UK, worked with a team of researchers to study electric activity from the brains of young and old people as they watched pictures of [faces](#) with cloud-like noise. He said, "Very few studies have attempted to measure the effect of ageing on the time-course of visual processing in response to complex stimuli like faces. We found that, as well as a general reduction in speed in the elderly, one particular component of the response to a face, the N170, is less sensitive to faces in the elderly".

The N170 occurs 170 milliseconds after a stimulus is presented. In the young, it was more closely associated with the appearance of a face, while in older subjects it occurred also in response to noise, perhaps implying reduced ability to differentiate faces from noise. Speaking about the results, Rousselet said, "Our data support the common belief that as we get older we get slower. Beyond this general conclusion, our research provides new tools to quantify by how much the brain slows down in the particular context of [face perception](#). Now, we need to identify the reasons for the speed reduction and for the heterogeneity of the effects - indeed, why the brains of some older subjects seem to tick as fast as the brains of some young subjects is, at this point, a complete mystery".

More information: Age-related delay in information accrual for faces: Evidence from a parametric, single-trial EEG approach; Guillaume A Rousselet, Jesse S Husk, Cyril R Pernet, Carl M Gaspar, Patrick J Bennett and Allison B Sekuler; *BMC Neuroscience* (in press); www.biomedcentral.com/bmcneurosci/

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