# Assessment of Time Perception. Efects of Aging

## Results:

Studies on temporal perception lack a validated method and a consensual "gold-standard" to measure time perception. Evidence suggests deterioration of timing with aging. This study aimed to develop and validate a neuropsychological tool to measure time perception and to study temporal perception along aging.

Eighty-six healthy subjects, aged 15-90 years-old, were prospectively asked to verbally estimate and produce empty intervals signaled by auditory beeps, of 7, 32 and 58 seconds duration. Two tests were used as "gold-standards": estimating the duration to draw a clock ("clock time") and estimation of the duration of neuropsychological evaluation ("global time"). Results showed a correlation between estimation and production ($p<.01$), and a correlation between estimation or production and "global time" ($p<.01$). A correlation between either estimation or production and age ($p<.01$), indicating faster internal clocks with aging. Comparison between three age groups (15-40 yrs-old; 41-64 yrs-old; 65-90 yrs-old), showed a trend toward overestimation and underproduction with older age, reaching significance between the extreme age groups ($p<.05$).

The proposed test seems a good tool to measure subjective duration and the results showed an acceleration of internal clock with aging.

## Published Work:

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Coelho M, Ferreira JJ, Dias B, Sampaio C, Martins IP, Castro-Caldas A,. (2004). Assessment of Time Perception: The effect of aging. Journal of International Neuropsychological Society, 10, 332-341.

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