

Träna din hjärna!

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Kan man träna sin hjärna?



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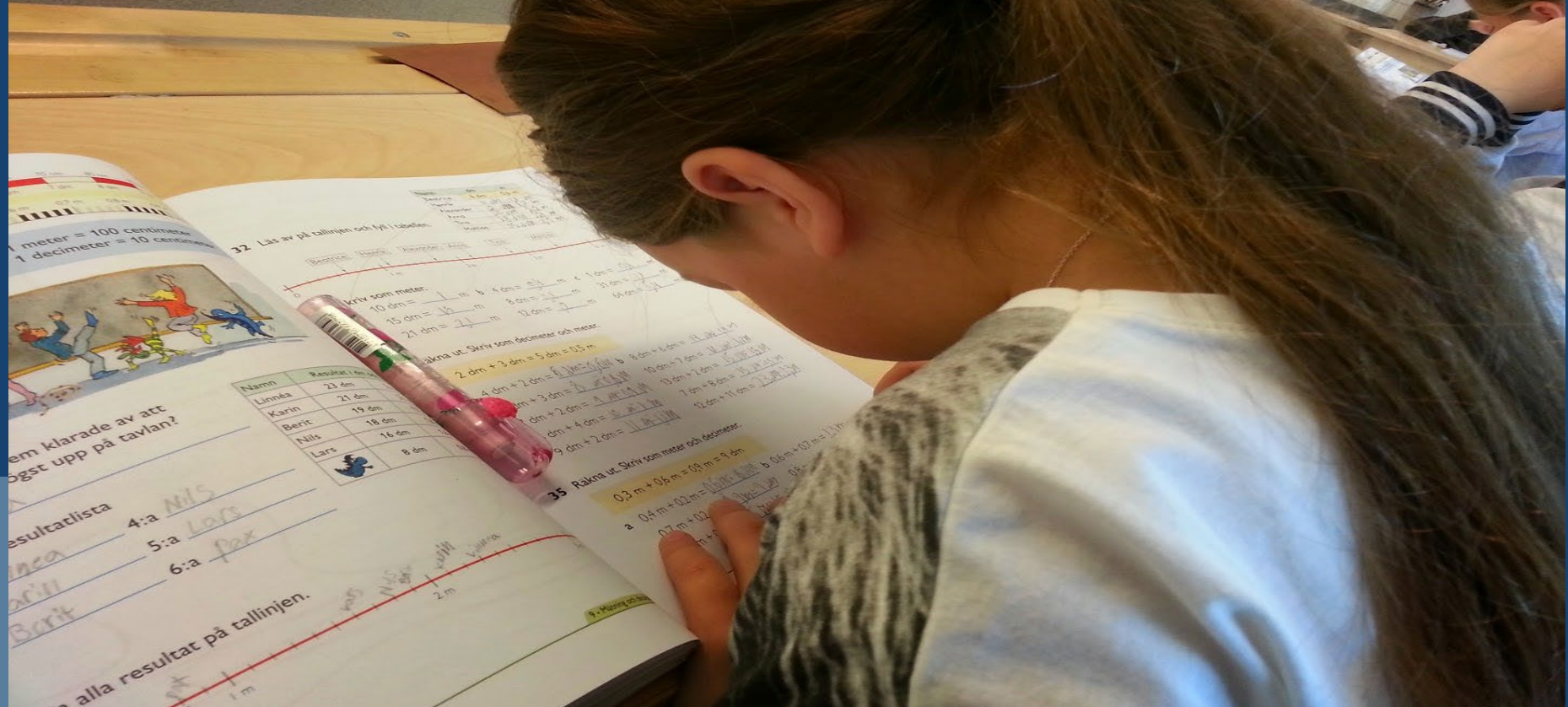
Forskningsfältet är splittrat!

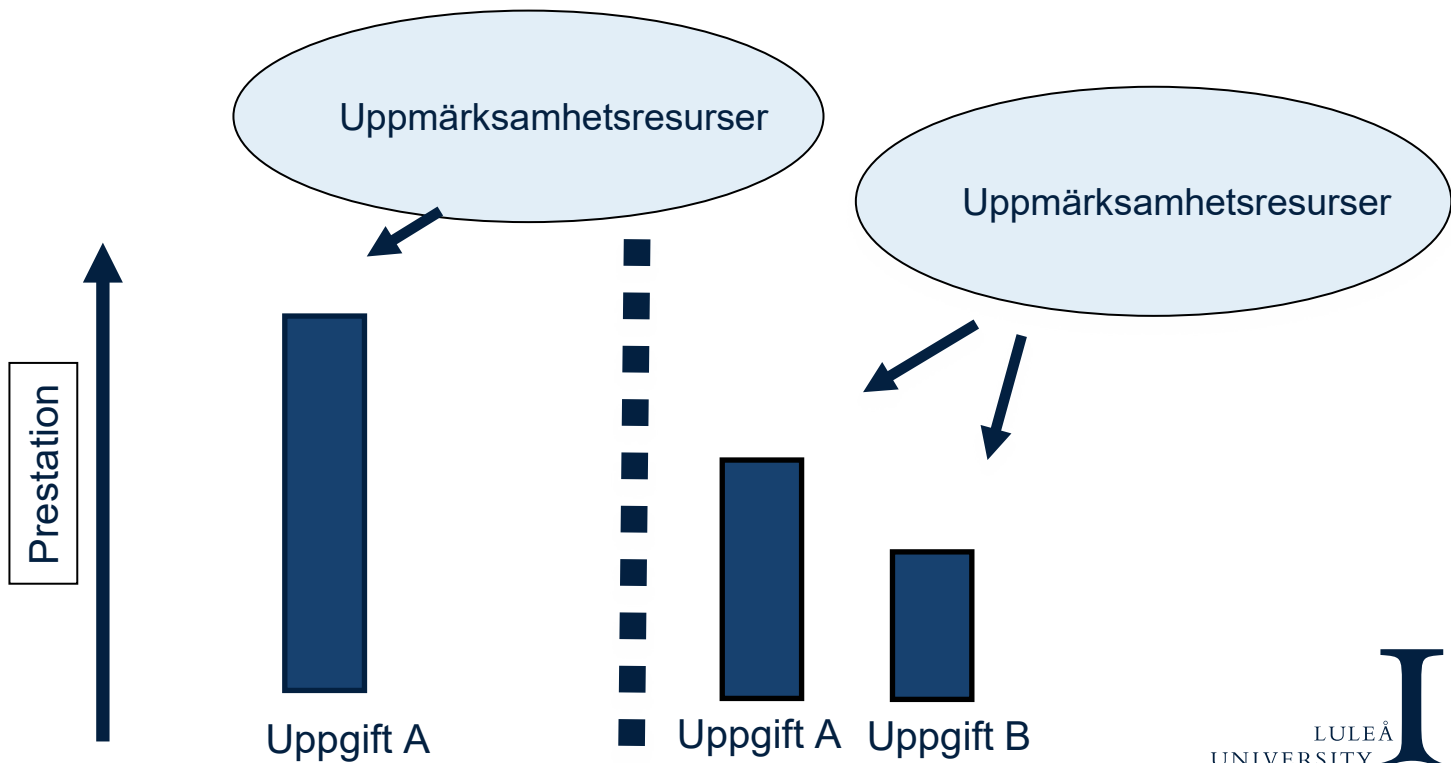
Resultaten drar åt olika håll!

Vad vi är överens om är: Du blir bra på det du tränar på!

Bildkälla: Filmarkivet

Utan uppmärksamhet finns inget lärande!



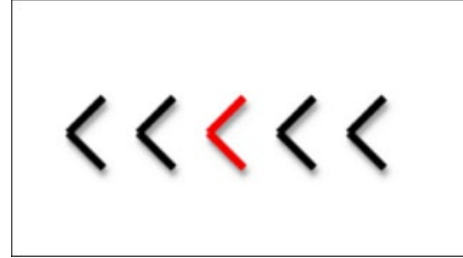
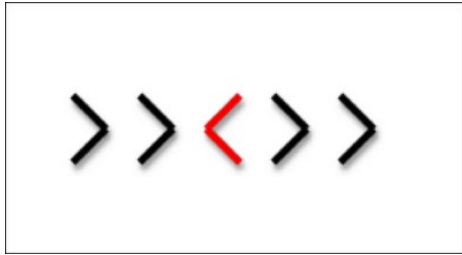


Att mäta uppmärksamhet & minnesförmåga

Subjektivt (enkäter, skattningar), Experiment/beteendemätningar (datortest, papper och penna) & Biologiska mätningar (fMRI mm)



Att "stänga ute" störande stimuli!





Ibland är distraktion dåligt & ibland är det livsnödvändigt!

Bildkälla: <https://www.aircraftnerds.com/2016/09/aircraft-cockpit-sounds.html>

Att växla uppmärksamhet



Bildkälla: <https://knowledgeone.ca/deciphering-attention/#>



Kognitiv kontroll

Bildkälla: <http://playray.se/ratt-kontroll-till-ratt-spel/>

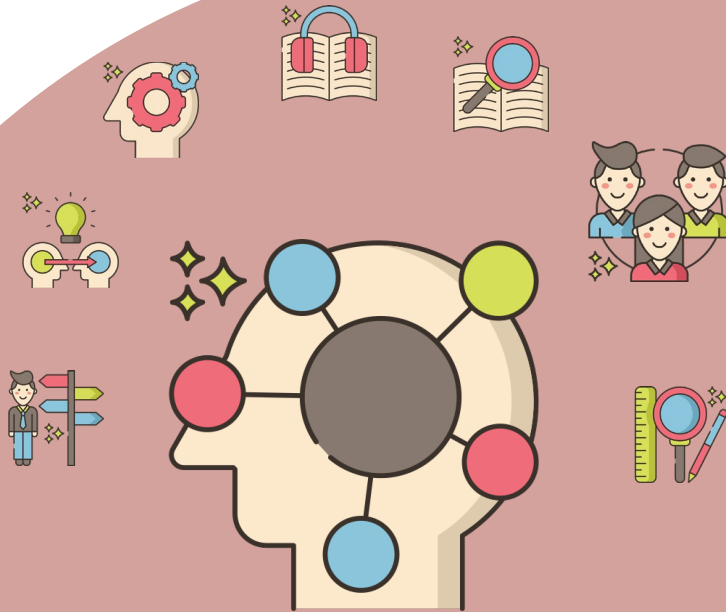
Flerspråkighet & kognitiva förmågor

Regelbunden användning av två eller flera språk stärker vissa minnesfunktioner!



- Studier visar att: Flerspråkiga använder sig av kognitiv kontroll oftare än andra.

Varför är språkinlärning så “speciellt”?

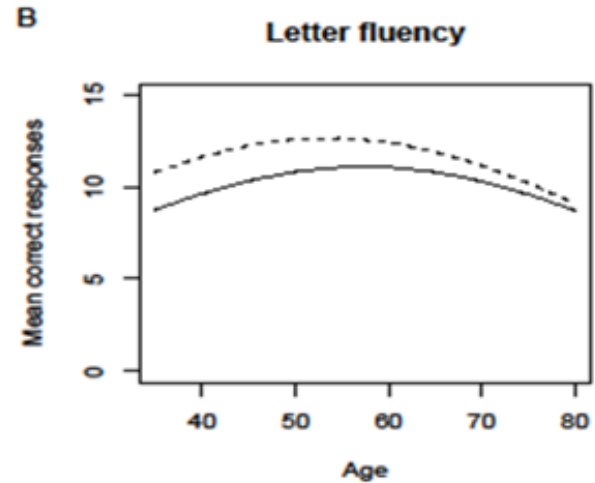
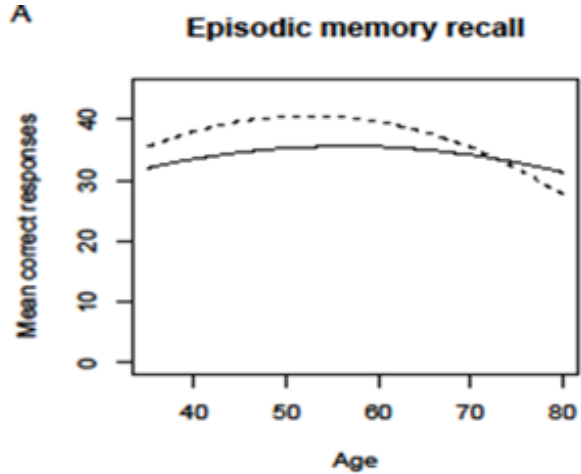


BETULASTUDIEN

- 4500 deltagare är testade 6 gånger med 5 års intervaller
- Deltagarna var mellan 25 till 80 år och samtliga från Umeå
- Information om minne, hälsa och livsstil
- En av de största minnesstudierna i världen

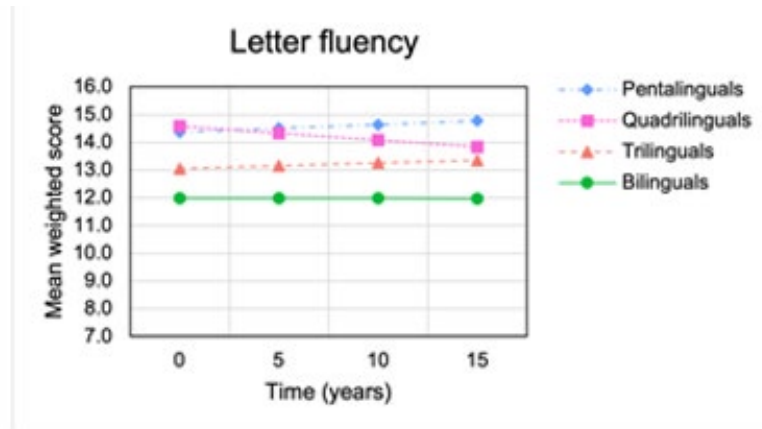
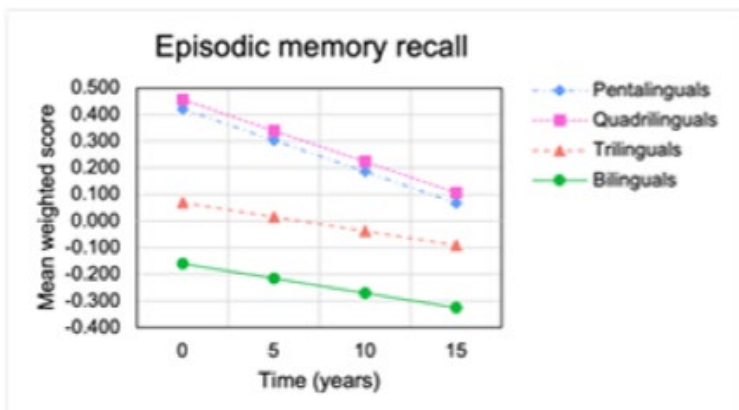
FRAMGÅNGSRIKT ÅLDRANDE

- Cirka 275 testade 2 gånger med 3 års intervall
 - Av dessa finns:
 - Svensk-Engelsktalande*
 - Svensk-Finsktalande*
 - Enspråkiga*
- Deltagarna var 55 år och äldre
- Information om minne och yrkeshistoria, språk, hälsa och livsstil
- En av de största flerspråkighetsstudierna i Europa



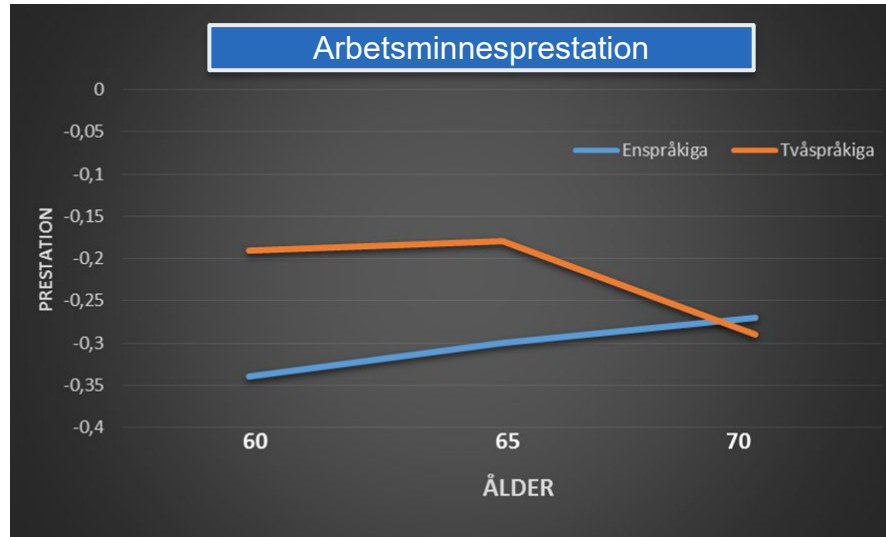
Ljungberg, K. J., Hansson, P., Andrés P., Josefsson, M., & Nilsson, L-G. (2013). A longitudinal study of the advantages in bilingual memory. *PLoS ONE*, 8, (9), e73029, doi:10.1371/journal.pone.0073029

Ju fler språk desto bättre!



Vega Mendoza, M., Sörman, D. E., Josefsson, J. & Ljungberg, J. K. (In press). A longitudinal study of the impact of multilingualism on episodic memory. *International Journal of Bilingualism*.

Träningseffekten en färskvara!?



Sörman Eriksson, D., Josefsson, M., Hansson, P., Marsh, J., & Ljungberg, K. J. (2017). Longitudinal effects of bilingualism on short-term memory and divided attention. *PLoS ONE* 12.

A Longitudinal Study of Memory Advantages in Bilingual

Jessica K. Ljung
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University of the Pacific,
Brisbane, Queensland, Australia



Abstract
Typically, studies
tasks (e.g., Simon
episodes, memory
performance, and
memory, and by
both in various
actions, ages, and
displays, on the
right of age.

Check for updates
Check for updates



Introduction

The increasing number of immigrants in many countries has led to the importance of understanding the cognitive advantages that can help in such populations. Bilingualism has been known to have several benefits, from education and cognitive skills to cognitive reserve and cognitive reserve. Bilingualism has been shown to have several benefits, from education and cognitive skills to cognitive reserve and cognitive reserve. Bilingualism has been shown to have several benefits, from education and cognitive skills to cognitive reserve and cognitive reserve.

PLOS ONE | www.plosone.org

Funding: The British Study was funded by the British Study of Aging Research (BSAR) number 1985 08212, 2005-2010.

PLOS ONE | <https://doi.org/10.1371/journal.pone.0181000>

RUNNING HEAD: Multilingualism & Cognition



ORIGINAL RESEARCH
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The effect of language skills on dementia in a Swedish longitudinal cohort

Jessica K. Ljungberg^{1,2}, Patrik Hansson¹, Rolf Adolfsson¹ and Lars-Göran Nilsson¹

¹Uppsala University / Carefill University / Stockholm University

Recent findings indicate that bilingualism delay the onset of dementia. Using data from the Betula longitudinal cohort study on memory, health and aging (www.betula.uu.se) the issue of a possible protective effect of bilingualism was addressed.

Monolingual (n = 736) and bilingual (n = 82) participants (> 60 years) without dementia at inclusion were followed for incident dementia over a time-period up to 10 years. In total, 112 participants developed dementia. Analyses were performed with Cox proportional hazards regression adjusted for age, sex, and pre-morbidities of the Amyloid protein β (APOE) ε4 allele, with dementia incidence as the dependent variable.

Results showed no delayed onset of dementia in bilinguals compared to monolinguals. However, because of the findings from a study using participants from the same population showing beneficial longitudinal effects of bilingualism on episodic memory, we argue that our results may depend on the frequency of use of the second language after retirement.

Keywords: Bilingualism, Dementia, Longitudinal design, Aging, Cognitive reserve

1. Introduction

Much research is devoted to factors that have the potential to reduce the negative consequences of cognitive aging and in turn promote successful aging (e.g., Hertzig, Kramer, Wilson & Lindenberger, 2009; Nyberg, Lövdén, Riklund, Lindenberg & Backman, 2012; Park, Gutters, Meade & Stitz-Morris, 2007; Park & Reuler, Lorenz, 2009; Balle, Freund & Li, 2005; Jonsson, de Luna, Pudas, Nilsson, & Nyberg, 2012). It seems generally accepted that there is the notion of

- Vilka språk man talar kan ha betydelse
- Inte effekt på alla minnesprocesser

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Frontiers in Psychology | www.frontiersin.org

English Approaches to Bilingualism in (2018), 1000–1014. doi: 10.1371/journal.pone.0181000

www.doi.org/10.1371/journal.pone.0181000



A woman with long brown hair, wearing a black headset with a microphone, is smiling and talking on a black mobile phone. She is holding a bright green mug in her left hand. In the background, a tablet is mounted on a tripod, displaying a colorful image. The setting appears to be a home office or a casual workspace.

Användande av flera media samtidigt förbättrar förmåga till att växla uppmärksamhet!



Dataspel kan förbättra beslutfattande

Bildkälla: <https://www.gamereactor.se/nyheter/849483/Sverige+ar+tredje+bast+pa+dataspel+i+hela+varlden/>

A white mouse is navigating a white maze. A piece of Swiss cheese is placed in one of the maze's paths, serving as a reward. The mouse is currently in a dead-end of the maze, looking towards the cheese.

Gener & Intelligens

Hönan eller ägget?
"Ingångsvärdets" betydelse för hjärnträning

Framtidens fokus på det livslånga lärandet

Bildkälla: Space.com

Knut och Alice Wallenbergs stiftelse
FORTE
Vetenskapsrådet



UMEÅ
UNIVERSITET





LULEÅ
TEKNISKA
UNIVERSITET

