

Europa-Universität Flensburg & Uniwersytet Gdański

Digitale Vorlesung

11/12/2023

**Gesunde Sprachliche Ernährung:  
Ein Plädoyer für Sprachunterricht  
in sich wandelnden Zeiten**

Thomas H. Bak

*University of Edinburgh*

@thbaketal

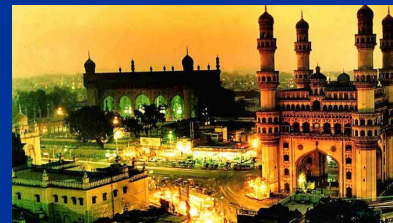
# Unterwegs zur Sprache: die Anfänge



- Krakau
  - Polnischer Vater, Deutsche Mutter
  - ... aber nicht zweisprachig erzogen
- The Ambiguität der Deutschen Sprache:
  - Persönlich: Lieder & Streit
  - Politisch: Schlesien vs. Galizien
- Language & politics:
  - Russisch, Englisch & Latein
  - Radio

# “Linguist auf dem zweiten Bildungsweg”

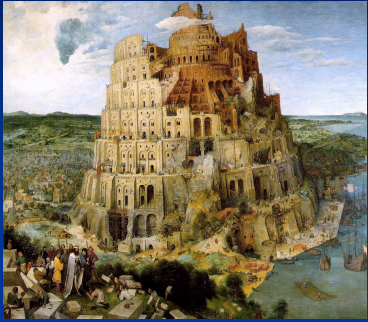
- Doktorarbeit über Aphasie in Freiburg im Breisgau
- Sprachstörungen in neurodegenerativen Erkrankungen
- WFN RG ADCD (President 2010-2018):
  - Courses in Asia & Latin America: *Iran, India, China, Mongolia, Colombia, Cuba*
- Bilingualism research: *Scotland, India, Singapore, China, Malta*
- 2012 - Attempt of multilingual education
- 2022 – Tourist Guide for Scotland (*in 5 languages*)



# Die drei Hauptvorurteile gegen den Sprachunterricht

- Sprachen Lernen ist mühsam und eine Zeitverschwendung, man kann die Zeit für bessere Sachen benutzen
- Die digitalen Übersetzungsmöglichkeiten und die künstliche Intelligenz machen den Sprachunterricht überflüssig
- Da heutzutage jeder sowieso Englisch sprechen kann, braucht man andere Sprachen gar nicht zu lernen

# Die impliziten Annahmen hinter den 3 Vorurteilen



- Die Funktion der Sprache ist es propositionale Aussagen zu vermitteln
- Verschiedene Sprachen benutzen verschiedene Worte um die Gleichen Dinge zu beschreiben
- Das Gehirn hat eine beschränkte Kapazität und Lernen von Sprachen nimmt kostbaren Platz, den man für andere Dinge benutzen könnte

# Die Sprache als Instrument: die Konsequenzen

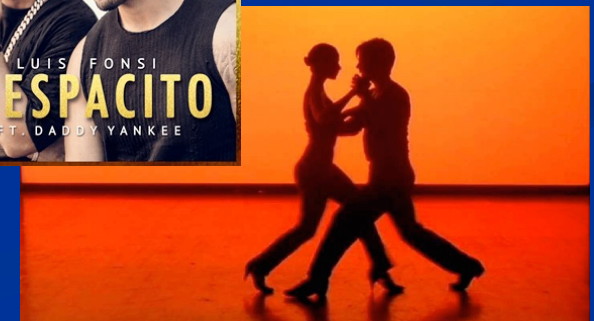
- English is enough

Eventuell auch:

- Geschäft: Chinesisch
- Freizeit: Spanish

Unnötig:

- Kleine & Minderheitensprachen
- Einwanderer-Sprachen
- Alte Kultursprachen



# “Die Sprache ist das Haus des Seins” *Heidegger, Brief über den Humanismus*

- Einsprachigkeit als eine Kellerwohnung
- Sprachen als ein Fenster in eine andere Welt
- => *Auch ein kleines Fenster hat seinen Wert*
  - *Die Befreiung des Denkens vom Joch der konkreten sprachlichen Formen & Erscheinungen (Vygotski)*



мает его до уровня наиболее обобщенной мысли, так точно усвоение иностранного языка другими совершенно путями освобождает речевую мысль ребенка из плена конкретных языковых форм и явлений.

# Verschiedene Fenster, *verschiedene Perspektiven*

## Fachliche Spezialisierung:

- Birken
- Kontext: *Bäume, Pflanzen, Lebewesen*
- Ökosysteme



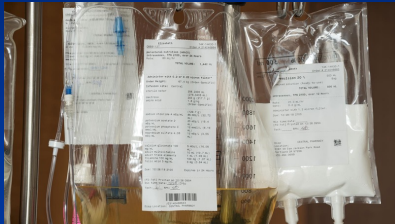
## Menschliche Beziehungen:

- Bindung, *Gefühlsmäßige Nähe*
- Spiegelung
- Lernen
- Genuß





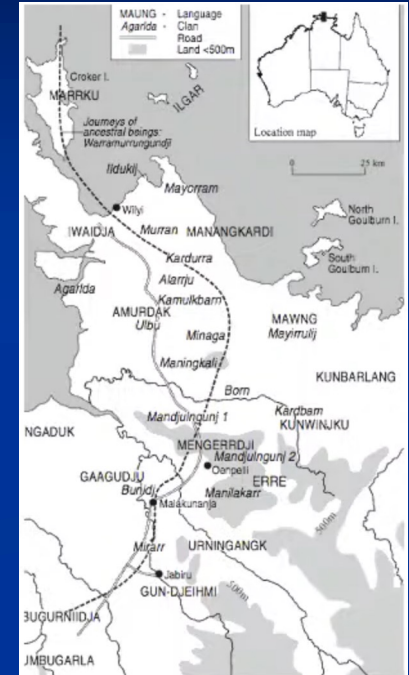
# Sprache & Ernährung: *von den Vitaminen zur Kultur & Identität*



The ancestress **Warramurrungunji** after travelling under sea from Macassar, Indonesia, comes on shore and sets groups of people with their distinct **land, food & language**

# Has human language developed in a multilingual context?

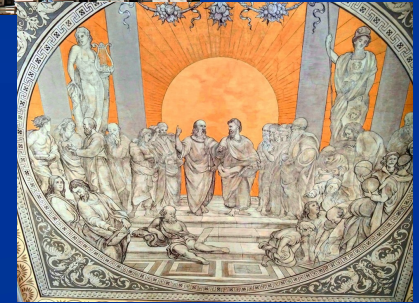
- Multilingualism among hunter/gatherers
- “Linguistic exogamy”
- Learning new languages across lifetime
- “as he approaches old age, he will go on to perfect his knowledge of all the languages at his disposal” (Sørensen 1967)



# Sprachunterricht als geistiges Training

## ■ Europe:

- Latein & Griechisch (+ Hebräisch)
- *Alfonso El Sabio: Spanisch & Portugiesisch*
- Französisch, Deutsch und Englisch



## ■ Islamische Welt:

- Arabisch & Persisch



## ■ Indien:

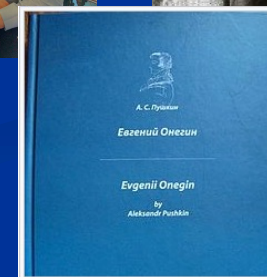
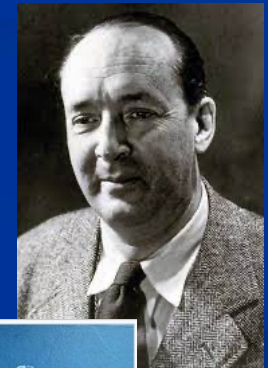
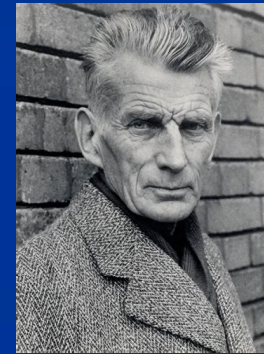
- Sanskrit & Pali
- Persisch & Englisch



# Eine dyadische Beziehung zur Sprache

- Beherrschen wir eine Sprache...
- ...oder beherrscht sie und?
- ...oder ist es eine dyadische Beziehung?
- आपको हिंदी आती है ?

- Perzeption
- Aufmerksamkeit
- Erinnerungen
- Moralische Entscheidungen
- Gefühle:
  - Mehrsprachigkeit in der Psychotherapie
  - Sprachlernen als Psychotherapie





# Kognitive Aspekte der Mehrsprachigkeit

- Metalinguistische Fähigkeiten (*gesprochene & geschriebene Sprache*)

*Wer fremde Sprachen nicht kennt, weiß nichts von seiner eigenen (Goethe, 1833)*

- Soziale Kognition, Erkennen anderer Perspektiven, “*Theory of mind*”
- Kognitive Kontroll-Mechanismen, Exekutiv-Funktionen

Aber

- Langsamer Zugang zum Lexikon (*lexical access*)



■ Hund

■ Dog

■ Pies

■ Perro

■ Chien

■ Gos



# PIES



- Mehrsprachigkeit: Simultane Aktivität mehrerer Sprachen
- =>
- Langsamer Zugang zum Lexikon

Aber

- Eine Herausforderung an die kognitiven Kontroll-Funktionen
- =>
- Ein Beitrag zur “*kognitiven Reserve*”



# Bialystok et al 2007, *Neuropsychologia*



- 230 dementia patients, ca. 50% bilingual
- Bilinguals develop dementia 4 years later!
  
- Related to contemporary research on bilingualism:
  - Bialystok et al 2004
  - Kavé et al 2008
  - Craik et al 2010
  
- The results interpreted in the light of **cognitive reserve**

Alladi, Bak et al 2013, *Neurology*

Alladi et al 2017, *Neuropsychologia*

Ramakrishnan et al 2017, *Dementia*



## ■ Why Hyderabad?

- Bilingualism common, old, not associated with migration
- Excellent clinical services, multilingual tests & staff

## ■ Results in 648 patients (60% bilingual)

- 4 years delay (6y. in illiterates!, n > 150)
- FTD > AD/VascD > DLB



## ■ Age of onset of Mild Cognitive Impairment (MCI):

- Bilingualism: 7.4 years
- Education: 3.6 years

Alladi et al, *Stroke* 2016

Paplikar et al, *Aphasiology* 2018



- 608 stroke patients (58% bilingual)
- Difference in *lifestyle/risk factors* => later age of stroke
- Difference in *cognitive reserve* => different outcome

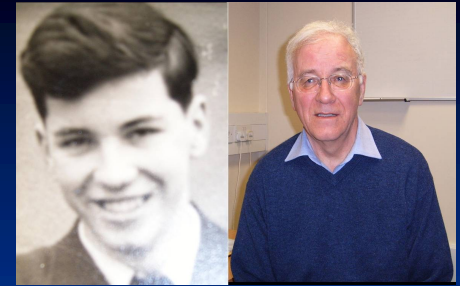
■ Results: age at stroke: 56 vs. 56.5 years

■ Outcome:	<u>Monolingual:</u>	<u>Bilingual:</u>
■ Normal cognition	19.6%	40.4%
■ Vasc Dementia/MCI	68.7%	49.0%
■ Aphasia	11.8%	10.5%
■ Global aphasia:	58.6%	17.9%

# Bak et al 2014, *Annals of Neurology*

## Cox et al 2016, *Neuropsychologia*

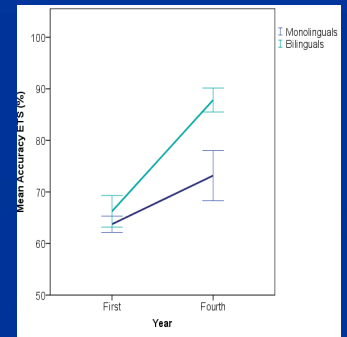
- Addressing the issue of reverse causality...
- ...through the Lothian Birth Cohort 1936
- Comparing performance age 11y. vs. age 70+y.
- 262/853 “able to communicate in L2”
- Specific effects of bilingualism:
  - Reading (NART), verbal fluency, general IQ
  - Simon Test - independent of Ch-IQ
  - Faux pas test (social cognition) - dependent on Ch-IQ
- Not confined to high-IQ group (also in 5/100 group)



# Bak et al 2014, *Frontiers in Psychology* Vega-Mendoza et al 2015 *Cognition*



- Using Test of Everyday Attention (TEA) “Elevator Task”
  - Early childhood bilingualism: better switching
  - Early adulthood bilingualism: better inhibition
  - No effects on visual-auditory divided attention



- Languages vs. humanities students
  - Year 1 (initial): No difference in switching
  - Year 4 (final) year:: Significant difference in switching



Bak et al 2016, *PLoS One*  
Long et al, 2018, *BL&C*



- Similar effects after an intensive language course?
- Improvement in switching after one week (*in all age groups*)
- Lasting 9 month later in those who practice >5hr/week
- The magic of Skye?
  - Non-residential course (Edinburgh), randomly assigned groups
  - TEA Switching Effects in Turkish, Norwegian
  - No effect in British Sign Language (BSL)

# Lingo Flamingo

- A social enterprise founded in Glasgow by Robbie Norval
- Offering language classes
  - To healthy elderly
  - To patients with dementia
- Counteracting loneliness & low self-esteem



## The limited resources metaphor



“Of course it’s nice to have a second language but I don’t believe this science twaddle for one second. The human brain can only contain a finite amount of information and as English speakers we are fortunate not to need a secondary language. That space is much better utilised for science, history and our rich culture.”

*Daily Mail, 02/06/2014*

“We have only 2GB of memory in our brain”

*Lee Kwan Yew, former PM of Singapore*



# Limited resources vs. added value models

## Limited resources models:

- “Chest of drawers” analogy
- Strict, static localisation
- Competition for space

## Added value models

- Interactive (more than the sum of the ingredients)
- Dynamic localisation, neuroplasticity
- Emphasis on learning & adaptation

### Healthy linguistic diet: the value of linguistic diversity and language learning across the lifespan

by Thomas H Bak, Dina Mehmedbegovic

- There is a widespread and often implicit tendency to consider monolingualism as the default state of individuals and societies. Multilingualism is considered in this context as a burden, posing challenges particularly to the education system.
- In contrast, research evidence shows that multilingualism is common globally and on the increase in the UK. It is associated with better cognitive performance and higher academic achievement in children and with slower cognitive ageing, delayed onset of dementia and better recovery from stroke in later life.
- These benefits can already be observed during language learning, long before learners become proficient, and have been reported in language learners off all ages.
- We propose a positive re-evaluation of multilingualism illustrated by the notion of a “healthy linguistic diet”, based on the idea that exposure to different languages, learnt to different levels of proficiency, can have positive effects across the whole lifespan, benefiting individuals and societies.

### Towards an interdisciplinary lifetime approach to multilingualism

From implicit assumptions to current evidence<sup>1</sup>

Dina Mehmedbegovic and Thomas H. Bak

University College London; University of Edinburgh  
[d.mehmedbegovic@ucl.ac.uk](mailto:d.mehmedbegovic@ucl.ac.uk); [thomas.bak@ed.ac.uk](mailto:thomas.bak@ed.ac.uk)

#### Abstract

Many types of human behaviour, from scientific research to political decision-making, are based on implicit assumptions, considered to be so self-evident that they do not need any further justification. Such assumptions are particularly powerful in topics related to language: one of the most universal and fundamental human abilities and a prerequisite for social life, civilisation and culture. They become a driving force in the current debates about multilingualism.

We identify three central assumptions underlying key controversies related to language: (a) the “limited resources model” assuming that learning languages has a detrimental effect on learning other subjects, (b) the notion that the “normal” state of human brain, mind and society is either monolingualism, or a strong dominance of a “mother tongue”, accompanied by less relevant “additional” languages, (c) the belief that the aim of language learning is a “native-like” proficiency and anything that fails to reach it has only limited value.

*Bak & Mehmedbegovic, 2016, Languages, Society & Policy*  
*Mehmedbegovic & Bak, 2017, Eur J of Language Policy*

# The Benefits of Language Learning

## Language specific

- Instrumental: *employability, success in business*
- Cultural: *history, literature, travel*
- Social: *meeting new people, making friends, communicating*

## Universal

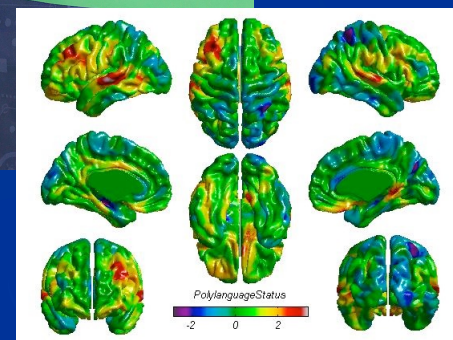
- Metalinguistic knowledge: *understanding & learning languages*  
(*“learn a language, get the other half price”*)
- From “mental training” to “transferable skills”:
  - *Understanding new information, fluency of ideas, creativity, flexibility, deriving new solutions, problem solving, emotional intelligence*
- Cognitive benefits: *lifelong development, cognitive reserve*

# Healthy Linguistic Diet

<http://healthylinguisticdiet.com/>

A network based approach

- to multilingualism
  - & language learning
- promoting
- Openness & curiosity
  - Diversity, variety & flexibility
  - Multiple levels of exposure & proficiency



[https://edinburgh.eu.qualtrics.com/jfe/form/SV\\_cZLujTCJiNn6FRX](https://edinburgh.eu.qualtrics.com/jfe/form/SV_cZLujTCJiNn6FRX)



**MULTILINGUALISM:**

Empowering  
Individuals

Transforming  
Societies

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