



WHY MULTILINGUALISM MATTERS (ESPECIALLY IN EUROPE): THE VIEW FROM RESEARCH

Antonella Sorace
University of Edinburgh & *Bilingualism Matters*
antonella@ling.ed.ac.uk

“Frühe Mehrsprachigkeit - Chancen und Perspektiven im Blick”





Stuttgart, 15 July 2016

1

 **Who's a 'Bilingual'?** 

~~Someone who knows two languages perfectly from birth~~

Someone who knows two or more languages and uses them on a regular basis

2

 **Five-Minute Tour of Research** 



3

 **Misconceptions on Bilingualism** 



Confusion  




Developmental delays 

Problems at school 



'Useful' and 'useless' languages 

4

 **What Research Shows** 

- Early perceptual separation of the two languages  
- Similar (although not identical) stages and milestones in bilingual and monolingual language development 


5

 **What Research Shows** 

Bilingual children 'notice' how language works

WORDS  **SOUNDS** 


SENTENCES



6

What Research Shows

Bilinguals find it **easier to learn other languages**.





They often have a **better understanding of the structure of the majority language**.

7

What Research Shows


- Competence and creativity in language mixing
- Smaller vocabulary in each language but equal or wider vocabulary across languages

8

What Research Shows


- Transfer of aspects of early literacy from one language to the other (when a sufficient vocabulary is learned)




9


What Research Shows

- Earlier awareness of other people's perspectives
- Better control of attention and ability to handle conflicting information ("executive functions")






TaskSwitcher




10


An Example: Task Switching



Task A: sort objects by shape



Task B: now sort objects by colour:




Bilingual children are faster than monolinguals to **refocus attention** and switch to Task B.

11

New Misunderstandings


- So are bilingual children more intelligent?
- **NO.** They have an "extra gear" that can give them an advantage in some situations.



12


Bilingualism = Automatic Benefits?

- Some benefits are not always found (but DISadvantages are not normally found)
- Bilingualism comes in many shapes and colours
- Many other factors may play a role!



Input

- Enough input in both languages.




Different Patterns of Bilingual Input

One parent – one language

Minority language at home, majority language outside the home


Majority language at home, minority language at nursery/school

Any of these will work if it provides enough input in both languages!




Typological Distance

Is bilingualism with two **closely related** languages (including local varieties and 'dialects') have the same effects as bilingualism with two **unrelated languages**?



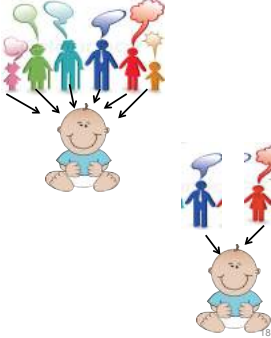
Degree of Separation in Use

Are there effects of **different patterns of exposure and use** (degree of separation, frequency of mixing and switching)?





Exposure to Different Speakers

Hearing the language from different speakers is necessary to learn what is possible and what is impossible in the language.



Social Status of Languages


- It's crucial that both languages are valued by families and communities....
- ...and that children know that both languages can be used in all communicative contexts.

19

Why These Advantages?

- Both languages are 'on' all the time.
- Bilinguals have to 'exclude' the language they are not speaking/hearing



20

It Doesn't Matter Which Languages

- It's the fact of having more than one language that matters.
- **THERE ARE NO 'MORE USEFUL' OR 'LESS USEFUL LANGUAGES FROM THIS POINT OF VIEW!**

21

Important Implications for Europe



- Multilingual classrooms and migrant children
- Language learning and teaching in primary schools
- Regional minority languages

22

Maintaining Home Languages? YES

- Research has shown that children exposed predominantly to impoverished non-native L2 input are at a disadvantage in acquiring the L2.

(Place & Hoff 2011)

23

Families Need to Realize that...

- ...children's linguistic and social integration are possible without giving up the home language...
- ... and in fact can benefit from it.

24

Multilingual Classrooms

- Maintaining home languages in migrant children helps school achievement in general, and language learning in particular.

25

The SOFT project

- Funded by EACEA – Lifelong Learning
- Partners: Italy, Spain, Switzerland, Germany, UK (Scotland).
- Start date: 1 December 2012, end date: 30 November 2015.



26

The SOFT project



- Aim: fostering the linguistic and social integration of migrant children through shared language learning of (a) languages that are new to all children, and (b) some languages of immigration (e.g. Polish)

27

The SOFT project

503 children:

Scottish: 227
Non-Scottish: 276

Countries of origin: Poland, Iraq, Syria, South Africa, Nigeria, Zambia, Slovakia, China, Spain, Portugal, Italy, Brazil

29 teachers

28

The SOFT project

Quantitative Data:

- Cognitive Test: DCCS
- Language tests in English and in the other language learned
- Questionnaire on home language use patterns

Qualitative Data:

- Classroom observations by teachers and tutors.

29

The SOFT project

Question 1: Do children exposed to a language in a classroom setting develop better general cognitive abilities?

→ Yes, all children do but immigrant children show a steeper development

Question 2: Do children who are already bilingual have an advantage at learning other languages?

→ Yes, they do.

30


The SOFT project

- Positive impact on children's behavior
- Development of empathetic feelings among all children
- Positive impact on language learning as it is viewed to be a normal and fun activity to do in class.

31

Language learning at school: realistic expectations

- One or two hours a week: what can be achieved?
- Monolingual and bilingual children: do they learn differently?



32

Language learning in Scotland

- Language Learning in Scotland: The 1+2 Approach
- Fully operational by 2020



33

Pilot studies: what *Bilingualism Matters* does

- We train volunteer students who are native speakers of Mandarin, Spanish and French to work with the teacher in P1 classes.
- We act as a point of reference for questions on child language learning during the project.
- We do research on the outcome of the project.

34

Early Chinese Learning Project

- Testing stage 1: 43 children from monolingual homes.
- Testing stage 2 (ongoing): children from bilingual and monolingual homes




35

Early Chinese Learning Project

- Testing at stage 1:
 - School A: 25 weekly sessions of 1hr 30 hours. Cumulative input = 37.5 hours; More native tutor-led activities.
 - School B: 26 weekly sessions of 45 minutes. Cumulative input = 19.5 hours
 - School C: 25 weekly sessions of about 1hr 45mins. Cumulative input = 43.75 hours; more teacher-led activities.
 - School Y: no input

36

Early Chinese Learning Project

- Were children happy with the learning experience?
- What were the outcomes of the learning experience?
 - How much Chinese have children learned?
 - Were there any effects of the learning experience on children's English?
 - Were there any effects of the learning experience outside language?

37

Early Chinese Learning Project What we tested

- **Chinese language ability:**
 - Lexical tones
 - some written Chinese characters.
- **Metalinguistic awareness:**
 - Better awareness in the mother tongue
- **Executive functions:**
 - Effects of Mandarin input on children's attentional skills

Target sound	Sound in sentence
ma1	ma3
shi2	ir
hao3	hao3

38

Early Chinese Learning Project Results

- Better performance is achieved by School A compared to the others:
 - (a) More hours of input, and
 - (b) More exposure to native speaker-led input.

Figure 3: Percentage of characters correctly recognized by pupils receiving high versus medium input.

39

Early Chinese Learning Project: recommendations

Our recommendations:

- Introduce a streamlined syllabus for all schools which forms the core of language activities.
- Increase the amount of training and support available to teachers and volunteers
- Swap volunteers between participating schools or classes.

40

Minority Language ↔ Bilingualism

- Bilingualism is essential for the transmission of a minority language across generations.
- Speaking the minority language may give children the benefits of bilingualism.

41

Garraffa, Beveridge & Sorace (2015): focus on Sardinian

- 95 children attending primary 1 and 2 classes in central Sardinia:
 - 40 Italian-Sardinian bilingual children
 - 45 Italian monolingual children.

42

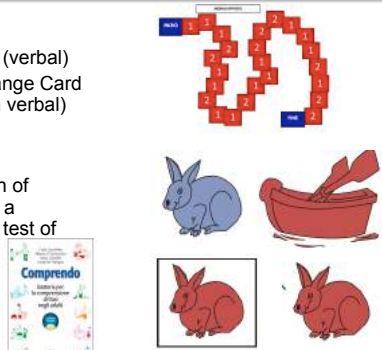
A Common Prejudice

- “A child who speaks Sardinian can't speak Italian well”



Garraffa, Beveridge & Sorace (2015)

- Cognitive tests:
 - Opposite Worlds (verbal)
 - Dimensional Change Card Sorting task (non verbal)
- Linguistic tests:
 - Modified version of COMPRENDO, a comprehension test of Italian.




Garraffa, Beveridge & Sorace (2015)

- Verbal cognitive task:** younger bilingual children initially have lower scores but by the end of the second year they overtake monolinguals.
- Non-verbal cognitive task:** younger bilingual children are initially the same as monolinguals but older bilinguals have higher scores than monolinguals.
- Italian language task:** no differences between bilingual and monolingual children, except for two complex structures where bilinguals have an advantage on monolinguals.


Focus on Scottish Gaelic Sorace, Cape & Bak (submitted)

- 63 bilingual children in GME, age 8-10; matched monolingual controls in English-medium education schools
- 3 tests from the ‘Test of Everyday Attention for Children’ (Manly et al 1999)
- Bilingual children better than monolinguals in one of the tests, ‘Opposite Worlds’, just like the Italian-Sardinian children in the Sardinian study.




Cypriot Greek-Standard Greek

- Antoniou, Grohmann, Kambanaros and Katsos (2016), *Cognition*.
- Tests of pragmatic comprehension and executive functions
- “Bilectal” children show similar cognitive control advantages to bilingual children




Longer-Term Benefits

- Some protection against the decline of cognitive abilities, both in normal and pathological ageing.



More Misunderstandings



- If you are bilingual you don't get Alzheimer's!
- NO.** Bilingualism is one type of **cognitive reserve** that can delay the first symptoms.



49

What About Learning a Language As An Adult?



- Some of these more general benefits are not just found in bilingual children but also in bilingual adults, both young and older.

0


Brain Plasticity Across The Lifespan

- Research in Edinburgh has found selective cognitive effects of language learning in university students....

52

Early Effects of Language Learning: Another Gaelic Study



Bak, Long, Vega-Mendoza & Sorace (2016)

52

Early Effects of Language Learning: Another Gaelic Study


- 33 adult learners of Gaelic in an intensive one-week course on Skye (age range 18-76).
- Active and passive controls
- All participants tested on auditory tests of attentional inhibition and switching both before and after the course
- No differences before the course; after the course only the Gaelic group improved from baseline.

53


Investing in Multilingualism

MORE INFORMATION = BETTER DECISIONS


54



Bilingualism Matters



- University of Edinburgh Centre of Excellence
- Seminars and training for the community, international companies and institutions
- Public engagement and policy advice
- Regularly invited to comment by media (on language and multilingualism)
- Diversified network in Europe (15 branches), growing in North America (2 branches)



Areas of engagement


- Early language learning in the preschool and primary school years
- Maintenance of home languages in immigrant children
- Maintenance of regional minority languages
- Language learning in young and older adults



Partnerships and collaborations




Projects

Website and contacts

<http://www.bilingualism-matters.ppls.ed.ac.uk>

bilingualism-matters@ed.ac.uk

antonella@ling.ed.ac.uk

madeleine.beveridge@ed.ac.uk

THANK YOU!