

Ch 7 case studies

- **“Being bilingual makes you smarter (or dumber)”**

Background preparation:

- *Kaplan (2016), Ch 7, sec 7.3*

1. Myths and research questions

- Ch 7 “myth”: ‘Being bilingual makes you smarter (or dumber)’
- Case-study section (7.3) theme:
 - ‘Does being bilingual make you smarter?’
 - What does ‘smarter’ mean for these studies?
- How does the case-study theme relate to...
 - The “myth”
 - Topics presented in the rest of the chapter (discussed last time)?

2. Lewis (1959)

- Participants, methods
 - Welsh/English vs. English in Wales; age 10
 - Nonverbal intelligence test (administered in student's choice of language)
- Categories of participants (Kaplan 2016: 139)
 - Group 1:** Children who always spoke Welsh with family members and almost always spoke it with friends.
 - Group 2:** Children who often spoke Welsh in the home but sometimes spoke English as well.
 - Group 3:** Children who spoke Welsh only occasionally.
 - Group 4:** Children who spoke no Welsh at all, or spoke it only occasionally with friends.
- Which were bilingual... according to Lewis?
according to Kaplan?

2. Lewis (1959)

- Results: Table 7.1 *Mean intelligence scores and standard deviations for each group. D. G. Lewis, Bilingualism and non-verbal intelligence: A further study of test results, British Journal of Educational Psychology 1959. Reprinted by permission of John Wiley & Sons, Inc.*

Group	1	2	3	4
Mean	33.30	38.36	38.94	40.98
S.D.	16.37	15.95	16.26	17.69

- Not all groups performed the same, $p < 0.05$
- Groups 1 and 4 significantly different, $p < 0.01$
- No comparisons reported for other pairs

2. Lewis (1959)

Discussion:

- What were the big-picture and measurable RQs for this study?
- Concerns or critiques about the study?
- How does this study relate to the Ch 7 themes?

3. Peal and Lambert (1962)

- Participants, methods
 - French/English vs. French in Quebec; age 10
 - Verbal and nonverbal intelligence tests (administered in French)

3. Peal and Lambert (1962)

- Results (Kaplan 2016: 142)
 - In keeping with previous research, Peal and Lambert expected to find that bilinguals would perform worse than monolinguals on the verbal intelligence tests, but that they would perform about the same on the nonverbal tests.
 - To their surprise, the bilingual students actually performed at least as well as the monolinguals on every test, and better on many of them.

3. Peal and Lambert (1962)

Discussion:

- Some key differences from Lewis (1959)
 - What demographic factors were more carefully controlled for?
 - What were the relative social roles of the languages this time?
- Concerns or critiques about the study?
- How does this study relate to the Ch 7 themes?

4. Bialystok et al. (2000)

- Participants, methods
 - Hebrew/English vs. Hebrew in Israel / vs. English in Canada; ages 4–5; early literacy skills only
 - Word-size problem (among other tests) (administered in French)
- Big-picture question: **metalinguistic awareness**
 - What is that?
 - Why might it matter?

4. Bialystok et al. (2000)

- Results (Canadian)

*Table 7.2 Means and standard deviations of the scores of monolingual and bilingual 4- and 5-year-olds on the incongruent pairs in the word-size task. Asterisks mark groups who performed significantly better than chance (0.50) at $p < .01$. Ellen Bialystok, Tali Shenfield, and Judith Codd, *Languages, scripts, and the environment: Factors in developing concepts of print*, Developmental Psychology 36(1):66–76, 2000, Table 4. Adapted with permission of the American Psychological Association.*

Age and group	<i>n</i>	Language			
		English		Hebrew	
Canadian sample					
4-year-olds					
Monolingual	16	0.48	(0.20)		
Bilingual	15	0.59	(0.22)	0.48	(0.29)
5-year-olds					
Monolingual	15	0.55	(0.22)		
Bilingual	15	0.78	(0.23)*	0.70	(0.22)*

4. Bialystok et al. (2000)

- Results (Israeli)

*Table 7.2 Means and standard deviations of the scores of monolingual and bilingual 4- and 5-year-olds on the incongruent pairs in the word-size task. Asterisks mark groups who performed significantly better than chance (0.50) at $p < .01$. Ellen Bialystok, Tali Shenfield, and Judith Codd, *Languages, scripts, and the environment: Factors in developing concepts of print*, *Developmental Psychology* 36(1):66–76, 2000, Table 4. Adapted with permission of the American Psychological Association.*

		Language	
Age and group	<i>n</i>	English	Hebrew
Israeli sample			
4-year-olds			
Monolingual	13		0.42 (0.24)
Bilingual	14	0.50 (0.22)	0.62 (0.22)
5-year-olds			
Monolingual	22		0.57 (0.28)
Bilingual	21	0.72 (0.24)*	0.76 (0.21)*

4. Bialystok et al. (2000)

Discussion:

- What were the big-picture and measurable RQs for this study?
- Concerns or critiques about the study?
- How does this study relate to the Ch 7 themes?

5. Kovács and Mehler (2009)

- Participants, methods
 - Italian monolingual / bilingual infants; age 7 mo
 - Anticipatory looking task
- Big-picture question: **executive control**
 - What is that?
 - Why might it matter?

5. Kovács and Mehler (2009)

- Results

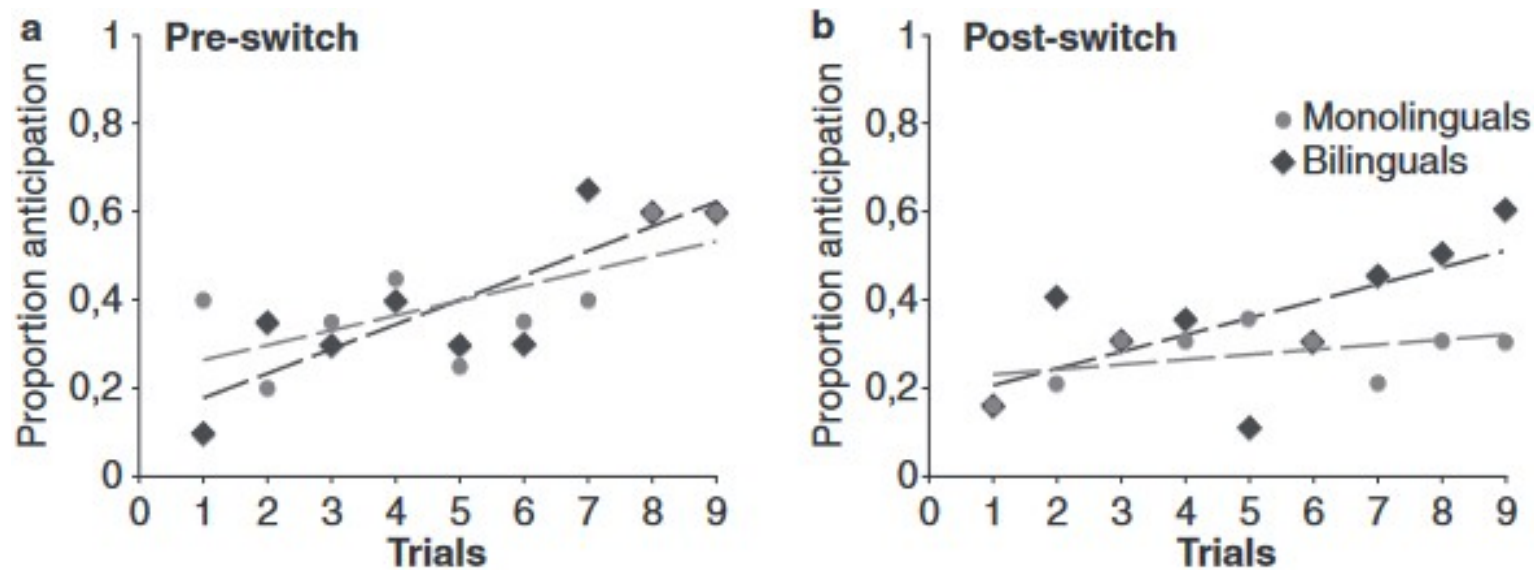


Figure 7.1 Proportion correct anticipatory looks in the pre- and post-switch phases of Experiment 1. Ágnes Melinda Kovács and Jacques Mehler, Cognitive gains in 7-month-old bilingual infants, *Proceedings of the National Academy of Sciences* 106(16):6556–6560, 2009, Figure 2.

5. Kovács and Mehler (2009)

Discussion:

- What were the big-picture and measurable RQs for this study?
- Concerns or critiques about the study?
- How does this study relate to the Ch 7 themes?

6. Kavé et al. (2008)

- Participants, methods
 - Hebrew “monolingual” / bilingual older adults
 - Tests of cognitive function
- Big-picture question: **cognitive decline**

6. Kavé et al. (2008)

- Results

Table 7.3 Means and standard deviations of scores on cognitive screening tests by number of languages spoken for three 'waves' of interviews. Lower scores are better. Gitit Kavé, Nitza Eyal, Aviva Shorek, and Jiska Cohen-Mansfield, Multilingualism and cognitive state in the oldest old, Psychology and Aging 23(1):2008, 70–78, adapted from Table 2.

Language group	Wave 1		Wave 2		Wave 3	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Bilingual	10.0	8.2	11.7	7.7	12.7	8.8
Trilingual	7.0	6.4	8.6	6.6	11.8	7.8
Multilingual	5.4	5.7	6.1	6.1	6.1	5.6

6. Kavé et al. (2008)

- Results

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Kavé et al. found a statistically significant benefit for speaking more languages ($p < .01$), even after they controlled for age, gender, place of birth, education, and age at immigration to Israel.

6. Kavé et al. (2008)

Discussion:

- What were the big-picture and measurable RQs for this study?
- Concerns or critiques about the study?
- How does this study relate to the Ch 7 themes?

7. Discussion points — Ch 7

- Lewis (1959)
 - “Monolingual advantage,” but flawed design
 - Group 1/*full* access to education (in English)?
 - Demographic differences?
 - Social factors? English vs. Welsh?
- Peal & Lambert (1962)
 - Bilingual advantage — but, social factors?
 - English vs. French?

7. Discussion points — Ch 7

- Bialystok et al. (2000)
 - Bilingual advantage — but, not robustly replicated
- Kovács and Mehler (2009)
 - Bilingual advantage
- Kavé et al. (2008)
 - Advantage for more languages — but, causation?

7. Discussion points — Ch 7

- Kaplan reports some examples of monolingual advantage — what are these?
- Myths...
 - Does bilingualism make you dumber?
 - Does bilingualism make you smarter?
- Are there other advantages to being bilingual?

8. Discussion: Bilingualism and social factors

- Narratives cited by Kaplan (2016: 150) that acknowledge some **social complexities** of the issue of bilingualism
 - [Abbady \(2013\)](#)
 - [Rodriguez \(1980\)](#) [click through from Table of Contents]
- What are some similarities (related to bilingualism) between these two narratives?
- What are some differences?

8. Discussion: Bilingualism and social factors

- A basic similarity:
 - Both of these narratives look at the acquisition of language by a child exposed to Spanish/English
- Some differences between the two narratives:
 - Abbady writes from the parent's current perspective; Rodriguez writes from the (distant) child's perspective
 - Abbady writes about life in Spain in the 2010s; Rodriguez writes about life in the US in roughly the 1960s to 1970s

8. Discussion: Bilingualism and social factors

- Can we identify different attitudes about bilingualism, English, and Spanish in these two narratives?
- Can we identify different social factors (at the level of the family or at the level of the society) that might be related to these two different attitudes?
- What are some personal feelings that come up about parents and children and (not) sharing a language?
- Are there any factors at play here that might affect results in research studies about bilingualism, balance/dominance between languages, and intelligence?