



Unit 8 - Bilingualism

Important questions about bilingualism

- How do people become bilingual? Children, teenagers, adults?
- How are a bilingual's two languages mentally stored and accessed?
- What are the advantages of being bilingual?
- Are there any disadvantages to exposing children to 2+ languages early on?
- How can research into bilingualism help develop language policy in education?

1) The term '**bilingual**'?

- A bilingual is someone who can communicate in two languages fluently and effectively and without hesitation in a wide variety of common situations in everyday life.'

2) Where and how is bilingualism established?

[1] Simultaneous bilingualism

- L1 and L2 are both acquired from an early age, often in the home, e.g. mother and father speak different languages to their children.

[2] Consecutive bilingualism

- L2 is acquired after L1. Typically before teenage years, often when children start school.

3) Why are L1 and L2 learned?

Frequent patterns:

- [1] The **heritage language** is learned **at home as L1**, and the local majority language/**a language of wider communication** is learned **as an L2 in school**, for economic/access-to-knowledge factors.

- [2] Mother and father have different heritage languages and want their children to learn both, for cultural and identity reasons.
- [3] Late L2 learning by teenagers/adults for personal/professional interest.

4) Are bilinguals equally proficient in their L1 and L2?

- If yes, they are “**balanced bilinguals**”.
- If not, they are “**non-balanced bilinguals**”.
- Most people who know two languages well are *non-balanced* bilinguals.

5) Do bilinguals have a dominant language?

- If a speaker uses one language more frequently than the other → this language may become dominant
- A **dominant language/DL** is easier to use and more automatic for a bilingual.
- Frequency of use usually leads to one language becoming dominant

6) Are there differences in attitude to L1 and L2?

- Do bilinguals have a **preferred language**?
- A preferred language may be the first-learned language or a later-learned language.
- A preferred language may not be an individual's dominant language.
- An individual's preferred language may change over time.
- Some children from minority groups may prefer the majority language

7) Does the language situation allow for L1 and L2 to develop well?

- How do you raise your child bilingually?
- The **One Parent One Language strategy/OPOL**.
 - Each parent speaks a different language to their child and only this language.
 - Consistency is important - each parent must stick to using only one language with the child

Multilingual learning scenario

- **Situation 1** - Mother and father have different mother tongues. One of these is the language spoken by the local majority. The mother tongues will develop well
 - A child is born in the USA to parents who speak different languages
 - Mother's first language is Armenian
 - Father's first language is English
 - Likely outcome?
 - The child will learn English as well and not experience language problems in school
 - It will be more difficult to help the child learn Armenian and become bilingual - much effort / OPOL is needed.
- **Situation 2** - Mother and father have the same mother tongue, which is not the local majority language.
 - A child is born in Mexico, to Spanish-speaking parents.
 - At around age 5, the family relocates to the USA.
 - Likely learning outcome?
 - Spanish will be learned well.
 - The child may have difficulties learning English quickly/well enough to keep up in school in the USA
 - Some special help may be needed so that the child can master English
- **Situation 3** - Mother and father have different mother tongues. Neither of these is the language spoken by the local majority.
 - A child is born in the USA
 - Mother's first language is Korean
 - Father's first language is Spanish
 - English is the local majority language
 - English should develop well - no language problems in school.

- Korean may develop if the mother speaks to her child consistently in Korean.
- If the father has less interaction time with the child, Spanish may not develop well

Early child simultaneous bilingualism

How language develops in children exposed to just one language:

- **6-8 months:** 'babbling' – children experiment with sounds: a-ba-ba, ga-ga-ga no meaning
- **10-12 months:** the sounds produced by children converge on adult sounds + they produce their first meaningful words (e.g. child points and says 'doggie!')
- **12-24 months:** 2-word sentences are produced (e.g. 'doggie sleeping') – vocabulary size 20-30 words
- **24 months+:** vocabulary growth – 200-300 words
- **36 months+:** 3+ word sentences, more complexity
- **48 months:** most adult language forms are established

Young children exposed to 2 languages

- When young children are given input in two languages, two patterns often occur.
1. Between ages 2-3, for some months, children **mix parts of the two languages** they hear, in two ways:
 - a. **Words from both languages are combined** in short sentences
 - i. **Horsie sova** (Horse is sleeping)
 - ii. **They manger bonbon.** (The horse is sleeping)
 - b. Children **create new word mixtures from parts of words** in the two languages they hear.
 - i. English: hot; French: chaud → New word: shot

- ii. English: Happy+ness=Happiness; Spanish: Feliz+idad; New mix: happy-dad
- 2. Children **do not establish parallel vocabularies** in L1 and L2. For each object, individual, or animal, they either learn and use the word in the L1 or the L2, not both languages.
 - a. cat or gato
 - b. dog or perro

Two different hypotheses of how children interpret input from two languages

The Unitary Language System Hypothesis

- The hypothesis: Children assume that everything they hear in L1 and L2 belongs to a single language, not two languages.
- Three stages of development are posited.
- **Stage 1:** L1/L2 words and grammar fully mixed.
- **Stage 2:** No mixing of words from L1 and L2 in a single sentence, but L1/L2 grammar rules are still mixed → separate vocabularies, mixed grammar.
- **Stage 3:** separate vocabulaires, separate grammars.

The Separate Development Hypothesis

- Hypothesis: children know that there are two language systems from the start.
- Why? Two arguments:
 - 1. Children do mix words and grammar, but they **never mix phonology/the pronunciation systems of L1 and L2.**
 - 2. Children **continue to mix words and grammar** sometimes even after there is very clear evidence that they know there are two distinct languages.

Which hypothesis is correct?

- Hard to be sure. Good arguments for both views.

- Maybe both hypotheses are correct, for children in different language situations.
 - Children raised strictly by OPOL mix much less and separate L1/L2 earlier on. Two systems from early one.
 - Children raised with more varied input from parent mix longer. Two systems only after another.
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Clear signs of L1/L2 distinction in children from age 4/5

- From age 4/5 onward, children show clear signs of knowing that they are using (and hearing) two different languages.
- Early on, children sometimes don't have words such as 'English' and 'Spanish' for the two languages they hear and use. But they show that they know there are two languages in other ways.
- (1) Mother: Quieres jugo?
 - Child: No jugo, candy mami.
 - Child: Candy!... Dame dulce, please!
 - The children know 'candy' is not the word in the mother's language - it should be used a word like 'dulce' and switched to this.
- (2) Child: Papa says 'Tisch', Mama says 'table'.
- (3) Children translate from one language to another, for the benefit of a parent who doesn't understand the other language
- (4) Children ask their parents to speak in certain ways
- (5) Children learn the words for their two languages

Interference

- With late L2 learners in their teenage years and beyond, the first-learned language often affects the way the second language is learned and spoken – the 'interference' of L1 on L2.

Phonological interference – a 'foreign accent'

- The L1 sound system affects the pronunciation of sounds in the L2

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- English/German has more vowels than Greek/Italian ⇒ Greek/Italian L1 speakers will simplify English when they later learn it.
 - Greek/Italian has 5-7 vowel sounds
 - English/German have 16-20 vowel sounds
 - Late English/German learners with L1 Greek/Italian make fewer different vowels sound than native English/German speakers.
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- In Norwegian, statement sentences end with a rising intonation ⇒ When L1 Norwegian speak English sometimes their statements would sound like a question

Grammatical interference

- The grammar of a person's first-learned language may interfere with their learning of an L2 grammar.
- Example. An L1 Spanish late-learner of English.
 - Spanish places most adjectives after nouns: una mujer muy alta 'a woman very tall'
 - This may result in the Spanish order in L2 English: 'Yesterday I met a women very tall'
- Example: L1 speakers of Spanish late-learner of English. Spanish can leave out subjects in sentences. This is sometimes done in L2 English: "John is not Australian. _ is from ..."

Lexical interference

- Words from L1 are sometimes borrowed into L2. This may be a temporary borrowing when a speaker forgets a word in the L2.
- In other cases of lexical interference, the meanings of an L1 word are incorrectly assumed to be present with a similar word in L2.
- Example - The over-extension and incorrect use of L1 word meanings in L2
 - Range of meaning of **cream** in English (food or cosmetic) ≠ that of **crème** in German (only a cosmetic)
 - English: full vs. French: plein

- English: (1) bottles tanks filled to the top; (2) Satisfied after eating enough.
- French: (1) bottles tanks filled to the top; (2) pregnant
- English: be hot vs. German: heiss
 - English: (1) Feeling the heat; (2) be good-looking; (3) be sexually aroused
 - German: (1) Temperature of things, not people, very high; (2) be sexually aroused
- Interference can occur at all ages when a person knows two languages.
- But interference effects are much stronger/more common in late L2 learners.

The Critical Period Hypothesis/CPH

- **Idea/claim:** There is a limited period of time during which a person can achieve a native-speaker level of proficiency in a language.
- A 'window of opportunity' for very successful language-learning - a '**Critical Period**'.

What is the '**Critical Period**' for language learning?

- Critical periods occur with other species
- The need to have some appropriate experience or stimulation in a certain period of time to trigger a special physical or mental development.

species	development
dogs	sociability
ducks	imprinting
birds	development of singing

- After this, language learners make slower progress and achieve less high levels of success.

Application of CPH

- The CPH can explain failures to acquire an L1 after a certain age.
- Children are deprived of normal language interactions until their teenage years - **Isolated, intentionally, or by accident.**

- Subsequent rehabilitation and language input in the teenage years does not result in normal first language acquisition.
- Children fail to develop regular language and speak in chaotic, unusual ways.
- Explanation: the language input comes too late – must come during the CP for normal success.

First vs. Second Language Acquisition

- If appropriate stimulating input is not supplied when children try to acquire a language **for the first time**:
 - Catastrophic failure to acquire 'normal' human language.
- ⇒ When **second language learning** occurs later in life:
 - Often good levels of success, but not reaching native-speaker level, and (generally) progressively lower levels are achieved as learning age becomes higher.
 - A **clear decline** in ability occurs, compared to early language learning.

What is the CP(Critical Period) for L2 acquisition?

- A study of L1 Chinese and L1 Korean-speaking children living in the USA who:
 - Had lived in the USA for 5 years
 - But their age of arrival was different
- Experimental tasks: judge the grammaticality of a set of English sentences
 - 'Every day our neighbor wash the car.'
 - 'The farmer bought two pig at the market.'
- Result:
 - Children who had arrived at the age of 3-7 performed just like native speakers
 - Those who arrived at 8-10 performed well but not like native speakers

The consensus view of the CPH for L2 learning

- L2 learning is regularly constrained by a Critical Period with a peak and an offset.

- There are some exceptionally good late learners, different from the norm.
- General pattern:

Critical Period	Peak	Offset	Post-CP
Age range	2-5	6-10	11+
Outcome	native speaker level	near-native speaker	increasingly difficult to learn L2 well

Language loss – ‘language attrition’

- A language once learned, can be lost..
- A change in our circumstances can lead to loss of our language abilities, to different degrees, sometimes very significantly.
 - Example: A girl speaking only Spanish from age 1-6 moved to France and lost contact with Spanish speakers. Her Spanish abilities were completely lost in 3 months and replaced by French.
- Evidence suggests that our ‘lost’ language may actually **be stored away** in a remote, temporarily inaccessible part of our brains.
- Studies show that people who have learned a language and then forgotten it, are able to **(re-)learn it faster** than first-time learners.

Case of Individual Language Loss and Recover

Case 1

- A woman born in the Cape Verde islands spoke only Portuguese until age 17.
- Moved to the USA, married, and raised a family.
- Only spoken English all her adult life.
- At age 108, she suffered a minor stroke.
- No effects on her general cognitive abilities.
- But she immediately lost the ability to communicate in English.
- And her Portuguese came back fully reactivated not spoken in 90 years.

Case 2

- A young woman in the UK had a bicycle accident, hitting her head.
- Consequence: She completely lost her ability to communicate in English.
- She woke up in the hospital and could not understand why others around her could not understand her when she spoke.
- She was speaking German, a language she had learned in school when young.

Words and concepts

- How are the words in a bilingual's mind stored and kept apart as L1 and L2?
- Words are linked to ideas we have in our minds – concepts.
- The word 'bicycle' is linked to an idea we have of what a bicycle is – our concept of what the word 'bicycle' means.
- BICYCLE: means of transportation that has two wheels, a saddle, handlebars, a chain, breaks etc.
- 3 different modes of linking have been proposed.

Compound bilinguals

- Typically, individuals who learn L1 and L2 simultaneously in the same environment.
- One concept = 2 words (one in L1, one in L2).

Coordinate bilinguals

- A different linking is assumed when L1 and L2 are learned sequentially and/or in different environments.
- Each word links to a separate concept.

Subordinate bilinguals

- A third patterning is assumed (and experimentally supported) when the words of an L2 have been learned through the words of an L1, via translation, not direct experience.

Subordinate bilinguals

- L2 words link to an L1-associated concept through the L1 translation.

Two points about the word-concept linking

1. A subordinate organization/linking may change/restructure itself to a compound organization over time – direct word-concept linking replaces translation and indirect linking, with more use of L2.
2. Maybe not all words in a bilingual's mind have the same kind of word-concept linking.
3. But there may be a dominant linking mode in each bilingual mind.

Advantages/disadvantages of bilingual exposure and learning

- Are there any disadvantages to exposing children to two languages?
- What may be the possible advantages of raising children with two languages?
- What are the consequences for children's:
 1. development of language abilities
 2. general cognitive development
 3. progress-success in school

Changes in opinion and research results

- In the early 20thC, it was often suggested that bilingual exposure was bad for children and their mental development.
- The '**Balance Theory**'. An idea that a person does not have sufficient brain space to learn two languages and gain other academic skills.

Research into bilingualism

Early research:

- Early research showing the negative consequences of attempted bilingualism came from studies on immigrant children in Germany, Scandinavia, and North America.
- More recently, the results of these studies have been questioned.

- The children studied all came from poor backgrounds in families facing many challenges.
- They were compared with monolingual children from stable, middle-class families.
- Maybe the low test scores were due to other aspects of the children's background, not bilingual exposure.

New research:

- 1950s: New tests compared children from similar socio-economic backgrounds.
 - When bilingual and monolingual children were compared for cognitive and language skills, no significant differences were found.
- 1960s: Tests began to show positive effects of bilingualism and exposure to two languages.
- This trend has continued to the present.
- A positive learning and cognitive effects can result from a well-structured exposure to two languages.

Reassessing bilingual exposure

- Studies from the 1960s increasingly showed that there can be beneficial effects from bilingual exposure and learning.
 - **“Additive bilingualism”**.
- But sometimes there also seemed to be negative effects when children were exposed to two languages.
 - **“Subtractive bilingualism”**.
- New challenge/focus of research: How to prevent subtractive bilingualism.

Two common causes of subtractive bilingualism

1) LINGUISTIC

- A child's L1 skills are not fully developed when the child is required to learn and quickly develop advanced new skills in L2:
 - a. learning to read and write
 - b. learning to use the L2 in analytic reasoning

- This learning burden causes an overload – too much to learn at the same time.
- Solution: better to let children develop their L1 first, then add an L2
- Children should learn to read and write first in their L1.
- This can be achieved through the early years of bilingual education.

2) **PSYCHOLOGICAL**

- Minority group children often experience that others express negative attitudes toward their L1.
- This causes children to develop negative feelings about their home/first language.
- And this negatively impacts their learning of the LML.
- → Neither the L1 nor the L2 are learned well.
- Stigmatization of the home language also negatively affects children's L1 cultural identity.
- Children begin to reject their ethnic identity and want to identify with the LML culture.
- But often they may not be fully accepted into the LML culture – are still classed as outsiders.
- → Children become lost between two cultures.
- → Social disconnection, alienation, and confusion
- A condition is known as '**anomie**'.

Additive bilingualism: the Bilingual Advantage

- When bilingual exposure occurs without these problems, it results in The Bilingual Advantage.
- Benefits for children (and adults) in two areas.

1) Advanced linguistic skills.

- Bilingual children are often found to be more creative in language use, and also more flexible in their thinking.
- They find it easier to see things/situations from different perspectives.

2) Beneficial cognitive effects

- Bilingualism improves skills called the '**executive function**', used for:
 - multi-tasking
 - maintaining focus/attention
 - switching attention
 - ignoring/inhibiting information that is not currently useful = not getting distracted
- All these skills are important for academic success.

How do these cognitive skills result from bilingualism?

- Learning to keep two languages apart in one's brain and use them selectively regularly involves **inhibiting** one language (the language not being spoken).
- → Bilingual children get practice in focusing on certain information and ignoring other, currently irrelevant information (the other language).
- → Stimulates stronger concentration skills in general.
- A positive transfer of language-based inhibition skills to general cognitive abilities.
- The Stroop Test
 - How fast and how correctly do participants name the ink color of the words
 - BL children are generally faster and more accurate in all these tasks
 - They can ignore the distracting information and focus on the important information

The Bilingual Advantage for aging populations

- The maintenance of bilingualism provides protection against the negative effects of aging.
- Cognitive decline can generally be helped by engagement in mental and social activities.
- Stimulates and creates 'cognitive reserve'.
- Bilingualism has the same kind of effect.

- Bilingualism involves healthy mental exercise – switching between two languages.
- Many bilinguals maintain good mental health longer than average monolinguals.
- They typically experience the onset of Alzheimer's disease several years later than monolinguals.
- They can also cope with the effects of Alzheimer's better.