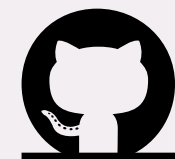

Applied Linguistics

LG 451/456 — Semester 2, 2021 (Jan-May 2022)

CLASS 4: BILINGUALISM AND COGNITION

Sakol Suethanapornkul



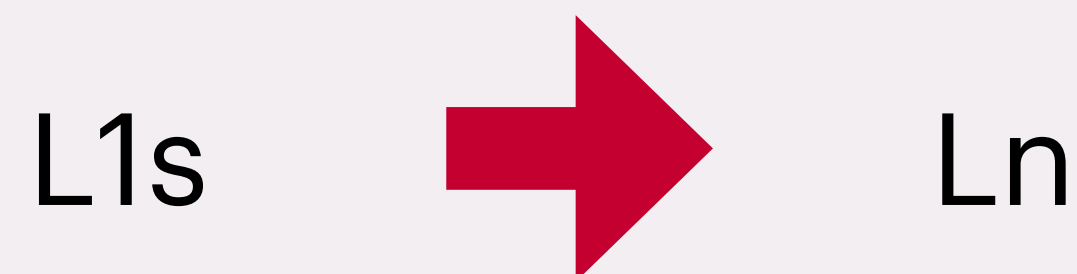
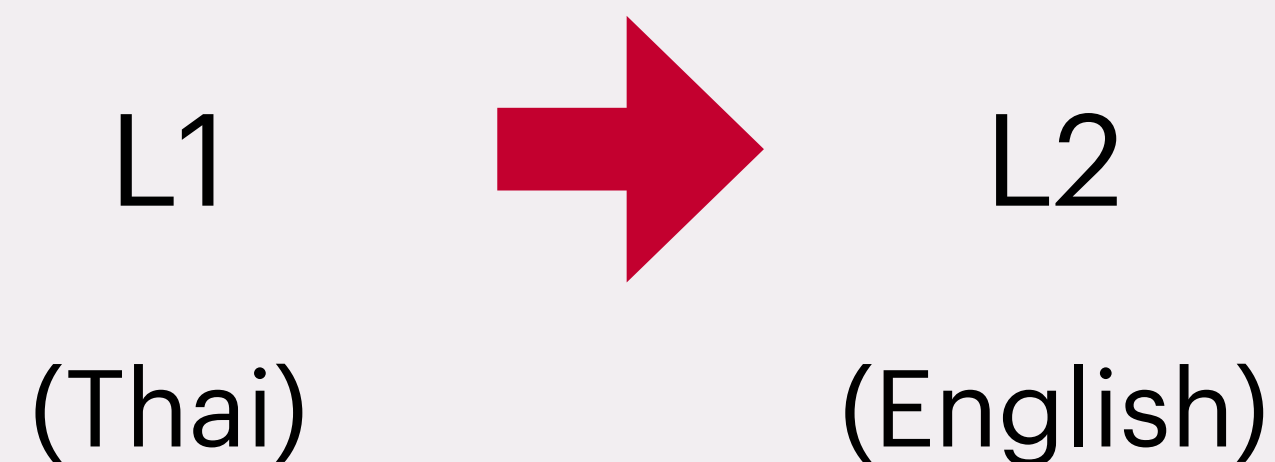
Outline: Week 4

- Recap: SLA
- Warm-up: Bilingualism
- Effects of bilingualism
- Looking ahead: Week 5

Recap: SLA

SLA: Its focus and scope

As a field, SLA investigates human capacity to learn additional language(s) other than the first in late childhood, adolescence, and adulthood



Outside class



Inside

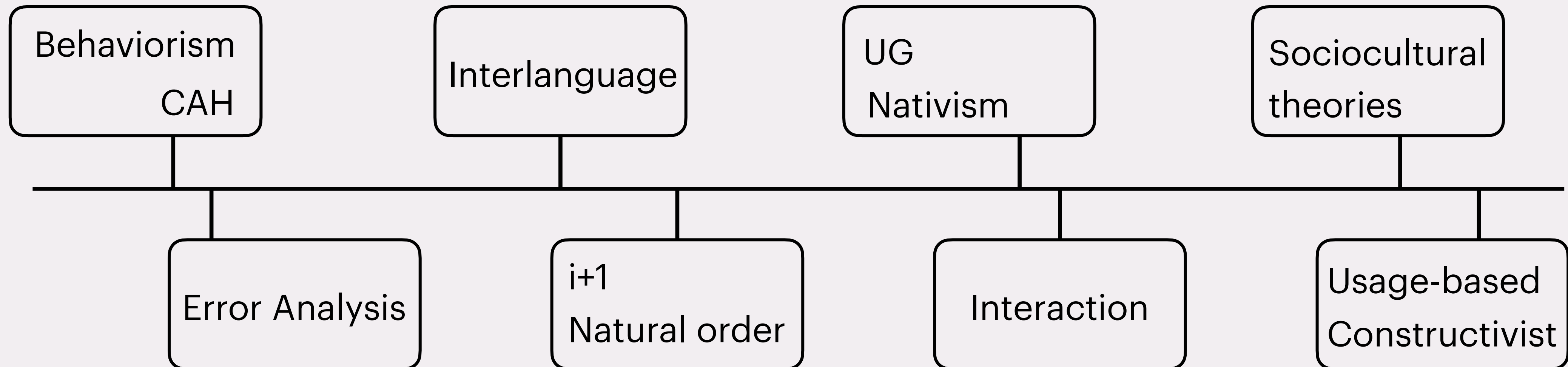
SLA: Its focus and scope

Overarching questions:

- How do we learn an L_n after the L₁(s) is/are acquired
- In what ways is the learning of L_n similar/different from that of L₁(s) from birth
- What factors contribute to the variability in rates and outcomes of L_n learning?
- (What does it takes to attain advanced competencies in L_n?)

Theories of SLA

★ The “awakenings”



NOTE: These theories/approaches did not develop chronologically as shown

Warm-up: Bilingualism

Author: Annette de Groot



- Professor, Dept of Psychology, University of Amsterdam
- Areas: Psycholinguistics, bi/multilingualism, psychology of reading

Warm-up

Are you a bi/multilingual?







Who are bilinguals?

How are bilinguals different?





Warm-up: Some facts about bilingualism?

Which of the following statements are true? Which ones are false?

- 1. Bilingualism is a rare phenomenon
- 2. Bilinguals acquire their two or more languages in childhood
- 3. Bilinguals have equal and perfect knowledge of their languages
- 4. Real bilinguals have no accent in their different languages
- 5. Bilinguals are born translators
- 6. Mixing languages is a sign of laziness in bilinguals
- 7. Bilinguals are also bicultural
- 8. Bilinguals express their emotions in their first language

Defining bilingualism

Defining (individual) bilingualism turns out to be extremely difficult!

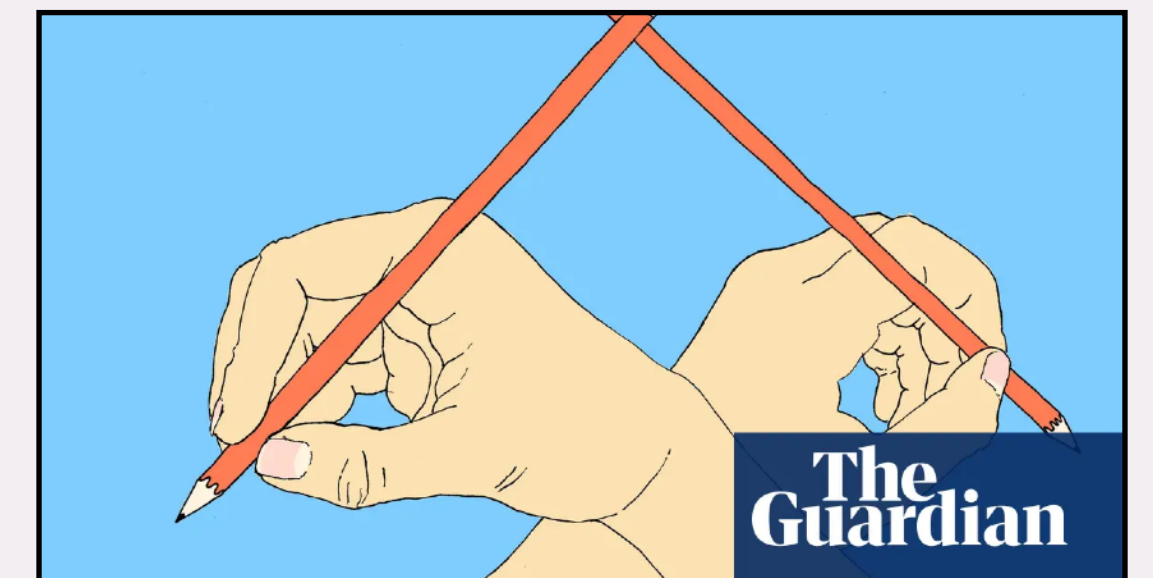
*Scholars use the term “bilingual” to refer to individuals who learned their languages under very different circumstances and who may differ widely from each other in what they can do or usually do with these languages in everyday life. **Scholars do not necessarily define bilingualism based on how well a person speaks a language.***

Treffers-Daller (2019, p. 289)

Defining bilingualism

Defining (individual) bilingualism turns out to be extremely difficult!

Dimensions: balanced vs. unbalanced bilinguals
proficient vs. non-proficient bilinguals
simultaneous vs. sequential bilinguals
adolescent vs. adult bilinguals



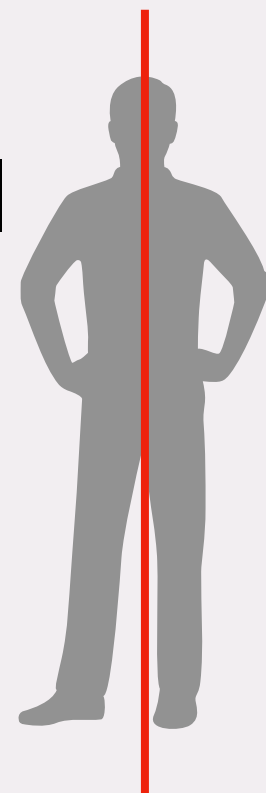
Defining bilingualism

François Grosjean (1946–) consistently advocates a **holistic view** of bilingualism



A fractional view

One half = monolingual

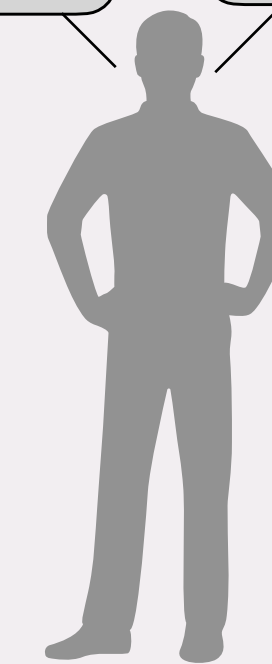


The other = monolingual

A holistic view

สวัสดี!

Hello!



A competent speaker-hearer

A unique linguistic profile

A complete whole

Defining bilingualism

François Grosjean (1946–) consistently advocates a **holistic view** of bilingualism



[A bilingual person] is *an integrated whole*, a unique and specific speaker-hearer, and *not the sum of two complete or incomplete monolinguals*. [A Bilingual speaker] has developed competencies...to the extent required by his or her needs and those of the environment. The bilingual uses the two languages—separately or together—*for different purposes, in different domains of life, with different people*. Because the needs and uses of the two languages are usually quite different, the *bilingual is rarely equally or completely fluent in the two languages*.

Grosjean (2008, p. 14)

Defining bilingualism

François Grosjean (1946–) consistently advocates a **holistic view** of bilingualism



Definition: Use of two or more languages in one's daily life
NOT optimal & equal knowledge of two languages

Assessing bilingual abilities

Treffers-Daller (2019) considers bilingual abilities as encompassing:

ability to process and use language

proficiency

sociolinguistic competence

pragmatic competence

strategic competence

Most studies, however, choose a particular domain, skill, or component and measure it through tests (and/or other- or self-reports)

Discrepant findings in bilingual research

Effects of bilingualism

Effects of bilingualism

1. Bilingualism and language
 - Language interaction → “accented” speech & comprehension
2. Bilingualism and cognition
 - Co-activation of languages → executive control
 - Intelligence

Questions for discussion

1. What is a phonological accent?	Group 1	Group 6
2. What kind of phonological accent do bilinguals have?	Group 1	Group 2
3. What is a grammatical accent?	Group 2	Group 3
4. How can a grammatical accent be demonstrated?	Group 3	Group 4
5. Why are bilinguals better at exerting executive control?	Group 4	Group 5
6. Is bilingualism good or bad for IQ? Why?	Group 5	Group 6

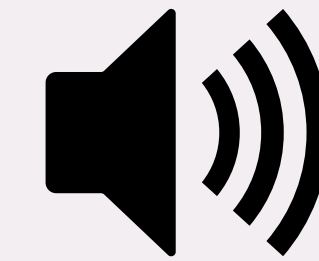
Bilingualism and language: Accent

Phonological accent:

Phonological accent in bilinguals:

Bilingualism and language: Accent

monolingual, L1 English:



Please call Stella. Ask her to bring these things with her from the store: Six spoons of fresh snow peas, five thick slabs of blue cheese, and maybe a snack for her brother Bob. We also need a small plastic snake and a big toy frog for the kids. She can scoop these things into three red bags, and we will go meet her Wednesday at the train station.

the speech *accent* archive

how to
browse
search
resources
about

The speech accent archive uniformly presents a large set of speech samples from a variety of language backgrounds. Native and non-native speakers of English read the same paragraph and are carefully transcribed. The archive is used by people who wish to compare and analyze the accents of different English speakers.

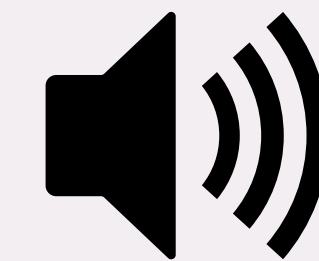
last updated: 21 november 2021 2982 samples

[f](#) [Tweet](#)

GEORGE MASON UNIVERSITY

Bilingualism and language: Accent

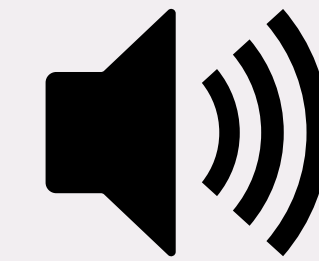
French L1, English L2:



Please call Stella. Ask her to bring these things with her from the store: Six spoons of fresh snow peas, five thick slabs of blue cheese, and maybe a snack for her brother Bob. We also need a small plastic snake and a big toy frog for the kids. She can scoop these things into three red bags, and we will go meet her Wednesday at the train station.

Bilingualism and language: Accent

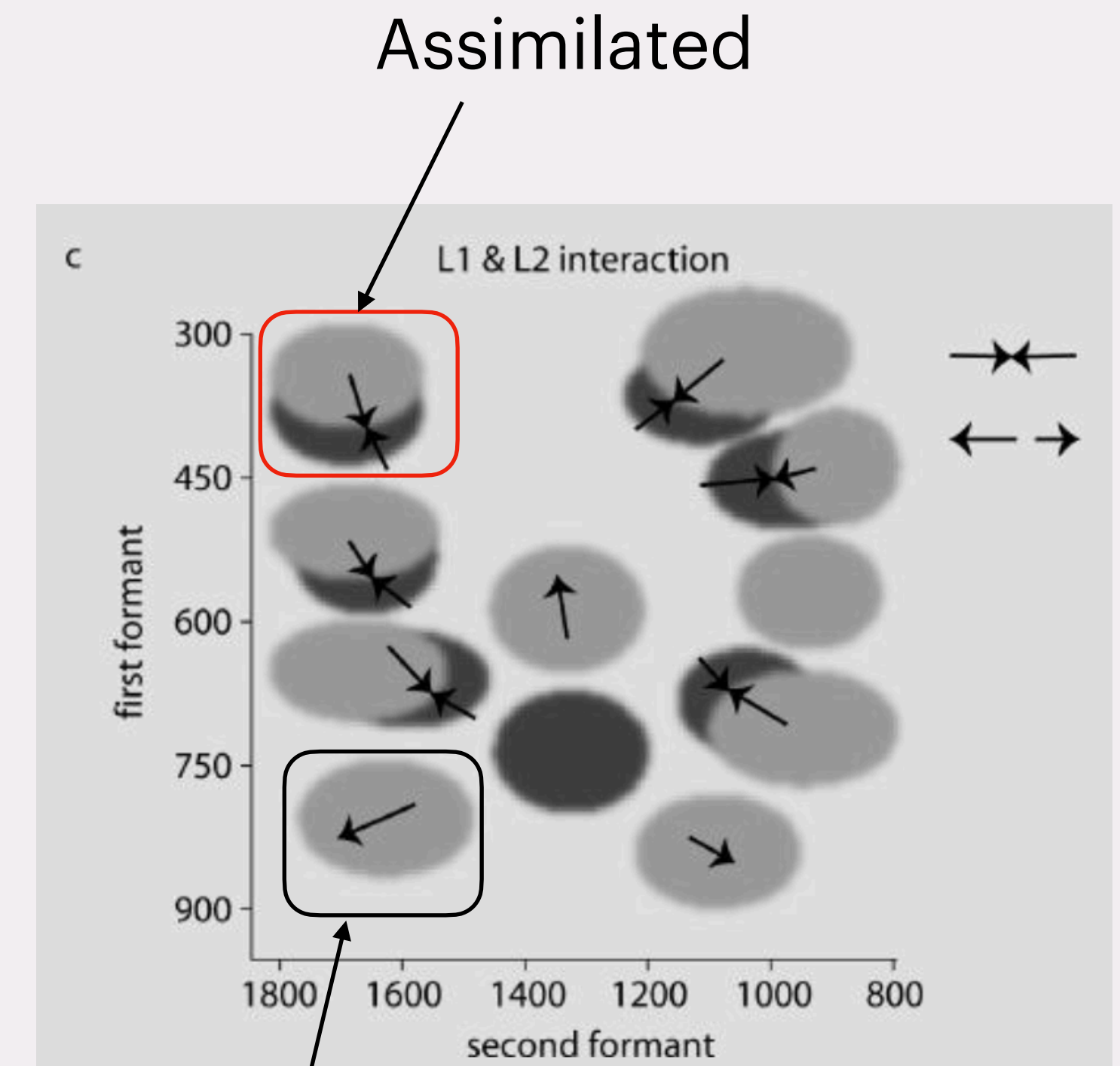
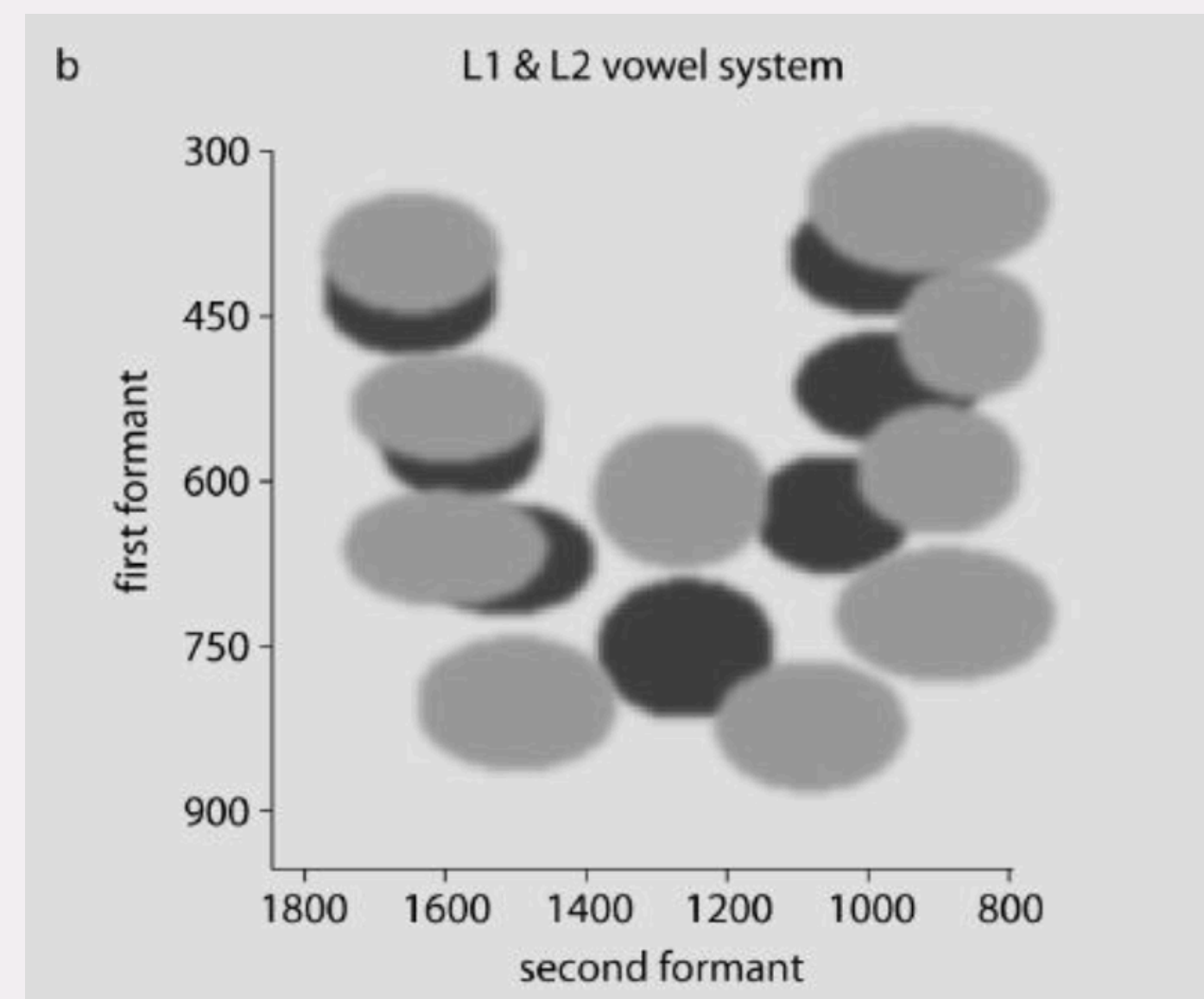
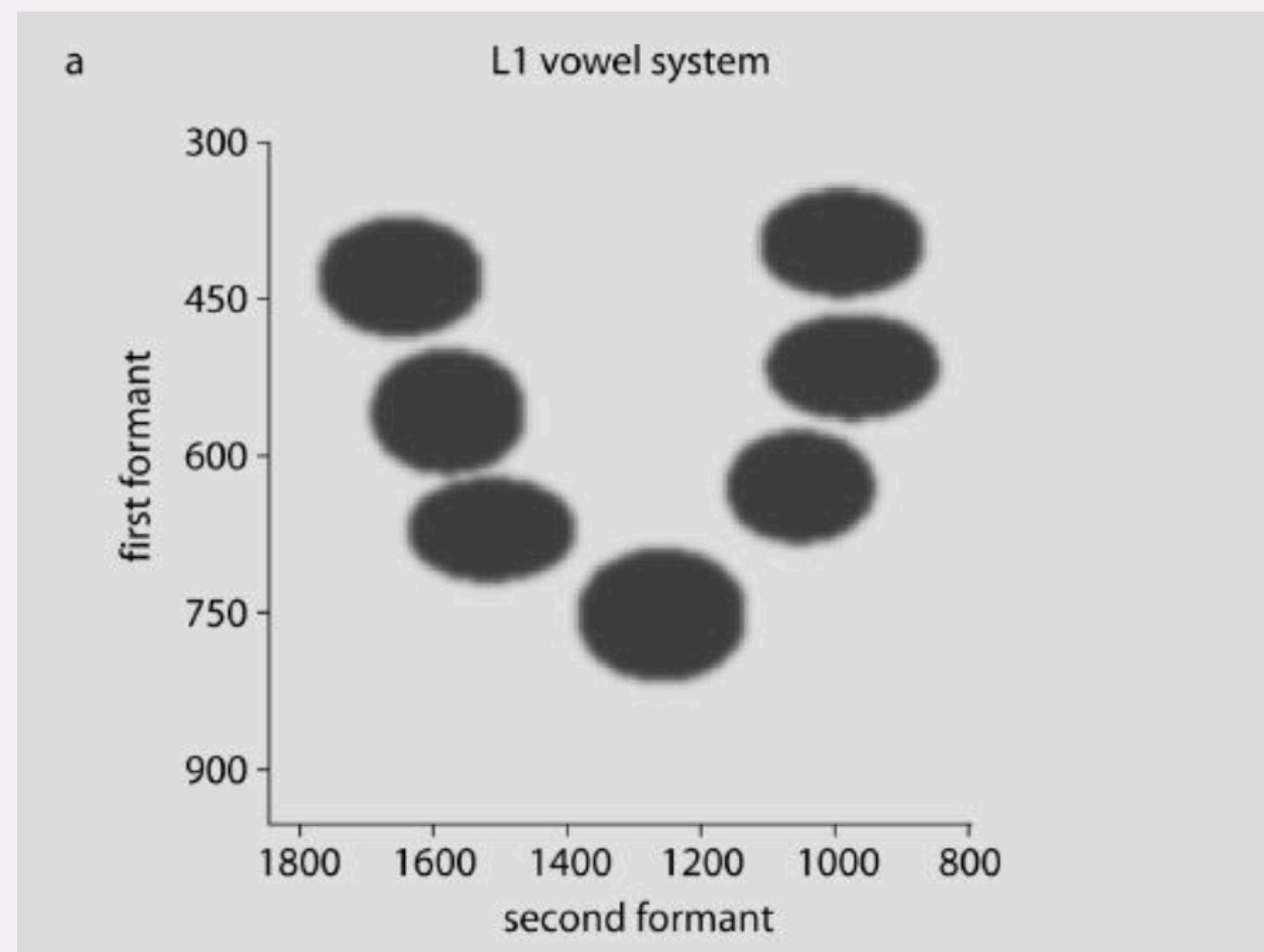
Extra: English L1:



Please call Stella. Ask her to bring these things with her from the store: Six spoons of fresh snow peas, five thick slabs of blue cheese, and maybe a snack for her brother Bob. We also need a small plastic snake and a big toy frog for the kids. She can scoop these things into three red bags, and we will go meet her Wednesday at the train station.

Bilingualism and language: Accent

Phonological accent is down to two processes:



Bilingualism and language: Accent

Grammatical accent:

Demonstrating grammatical accent in bilinguals:

Bilingualism and language: Accent

A relative clause can be “attached” high or low:

*Someone shot the **son** of the **actress** who was on the balcony*

vs.

*Someone shot the **daughter** of the **actor** who went to a clinic to give birth to her first-born child*

Bilingualism and cognition: Executive control

Cognitive control (executive control or executive functions [EFs])

EFs refer to a family of top-down mental processes needed when you have to concentrate and pay attention...There is general agreement that there are three core EFs: *inhibition* [inhibitory control, including self-control (behavioral inhibition) and interference control (selective attention and cognitive inhibition)], *working memory* (WM), and *cognitive flexibility*. EFs are skills essential for mental and physical health; success in school and in life; and cognitive, social, and psychological development

Diamond (2013, p. 136)

Bilingualism and cognition: Executive control

Cognitive control (executive control or executive functions [EFs])

Simon Task: testing ability to inhibit (or suppress) interference

https://www.psychtoolkit.org/experiment-library/touch_simon.html

Bilingualism and cognition: Executive control

- Bilinguals are argued to have better executive control than monolinguals
 - because they have to inhibit contextually irrelevant language in their lives
- But the evidence for such “bilingual advantage” is mixed
 - Positive: Bialystok and Viswanathan (2009)
 - Negative: Dick et al. (2019)



Ellen Bialystok

Bilingualism and cognition: IQ

Next week...

- Topic: Language attrition
 - What causes the loss of first language?
- Reading:
 - Ahn et al. (2017) *Age effects in first language attrition*
 - Skim the paper, read the abstract, get a general sense
 - We will practice summarizing a research article (i.e., synopsis practice)

References

- Bialystok, E., & Viswanathan, M. (2009). Components of executive control with advantages for bilingual children in two culture. *Cognition*, *112*, 494–500.
- de Groot, A. M. B. (2011). *Language and cognition in bilinguals and multilinguals: An introduction*. Psychology Press.
- Diamond, A. (2013). Executive functions. *Annual Review of Psychology*, *64*, 135–168.
- Dick, A. S. et al. (2019). No evidence for a bilingual executive function advantage in the ABCD study. *Nature Human Behavior*, *3*, 692–701. doi: 10.1038/s41562-019-0609-3
- Grosjean, F. (2008). *Studying Bilinguals*. Oxford University Press.
- Treffers-Daller, J. (2019). The measurement of bilingual abilities. In A. de Houwer & L. Ortega (Eds.), *The Cambridge handbook of bilingualism* (pp. 289–306). Cambridge University Press.