

Second Language Acquisition

LG 376 – Semester 2, 2021 (Jan-May 2022)

CLASS 9: COGNITION

Sakol Suethanapornkul



Outline

- Recap: First half of the semester
- Cognition
 - Information processing in SLA
 - Skill acquisition in SLA
- Google Scholar search
- Looking ahead: Week 10

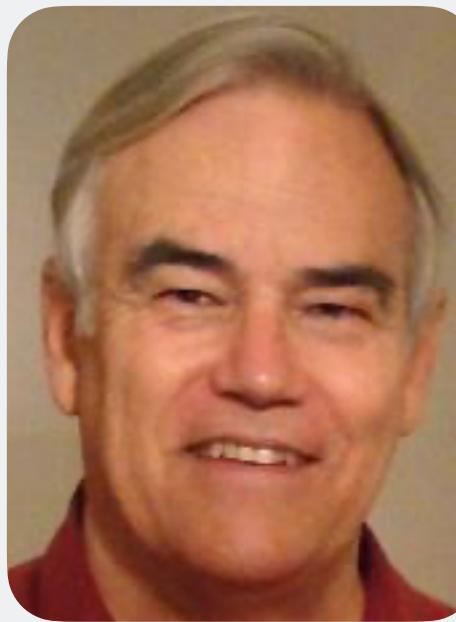


Recap

SLA mid-semester party



Match the authors with their photos
and topics?



1. Bilingual turn in
SLA

2. Age in FL contexts

3. Pushed output

4. Interaction

5. Transfer

6. Fundamental
difference

7. Monitor model

8. Noticing

9. Practice

10. Interlanguage

1. DeKeyser

2. Bley-Vroman

3. Swain

4. Ortega

5. Selinker

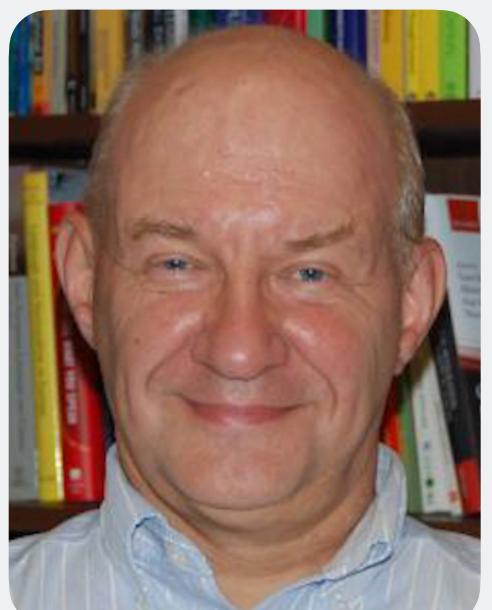
6. Long

7. Schmidt

8. Muñoz

9. Krashen

10. Jarvis



SLA mid-semester party 🎉



Mid-semester review

Successful L2A depends on a host of factors. We have discussed:

- age
 - rate of learning: adults vs. children
 - ultimate attainment: early starters vs. late starters
- crosslinguistic influences (or transfer)
 - interlanguage & developmental sequences
 - L1-L2 similarities & differences

Mid-semester review

Successful L2A depends on a host of factors. We have discussed:

- linguistic environment
 - input: comprehensible input, modified interaction
 - output: pushed output & language production
 - noticing (Wes' IL development)
 - usage-based approaches: frequencies

Cognition

Setting the scene...

- The term **cognition** from Latin → “to get to know”
 - SLA research asks **what** it takes to get to know an L2/Ln well
 - Methods & tools come from psychology & neuroscience
- Major challenges:
 - Differentiate between processing of known and novel L2 information
 - Methods and evidence (RTs in milliseconds, blood oxygenation, etc.)



Setting the scene...

- Investigating L2A is just as hard as monolingual L1A
 - Positive evidence vs. negative evidence (?)
 - A simple example: Put the adverb **often** into the sentence **I drink coffee**
 - The logical problem of language acquisition (in L1A)
 - Language seems logically unlearnable
 - How can we explain the fact that all children learn it?
 - UG, emergentism, and many things in between

Information processing in SLA

- Human mind is a **symbolic processor** engaging in mental processes
 - Mental processes cause human behavior
 - Analogy: CPU and not keyboards or mice
 - Cognition has limited capacity/resource
 - Memory and attention are limited
 - Think: Netflix and SLA lecture at same time



Information processing in SLA

- Two central tenets:
 1. Cognitive architecture is made up of
 - **representation** (knowledge)
 - **access** (processing)

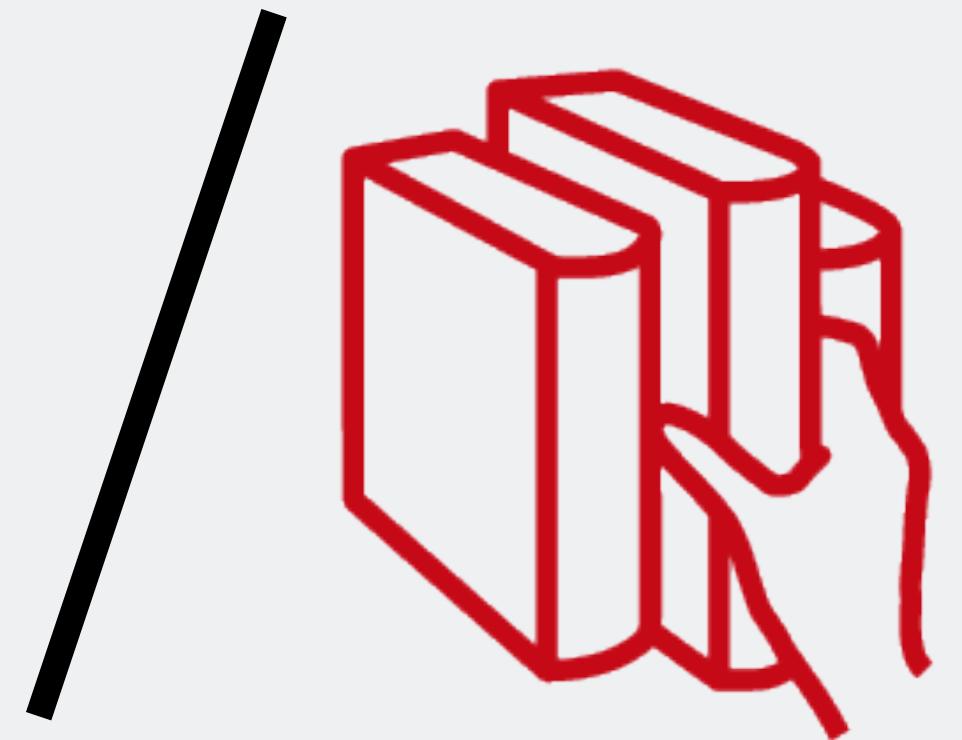
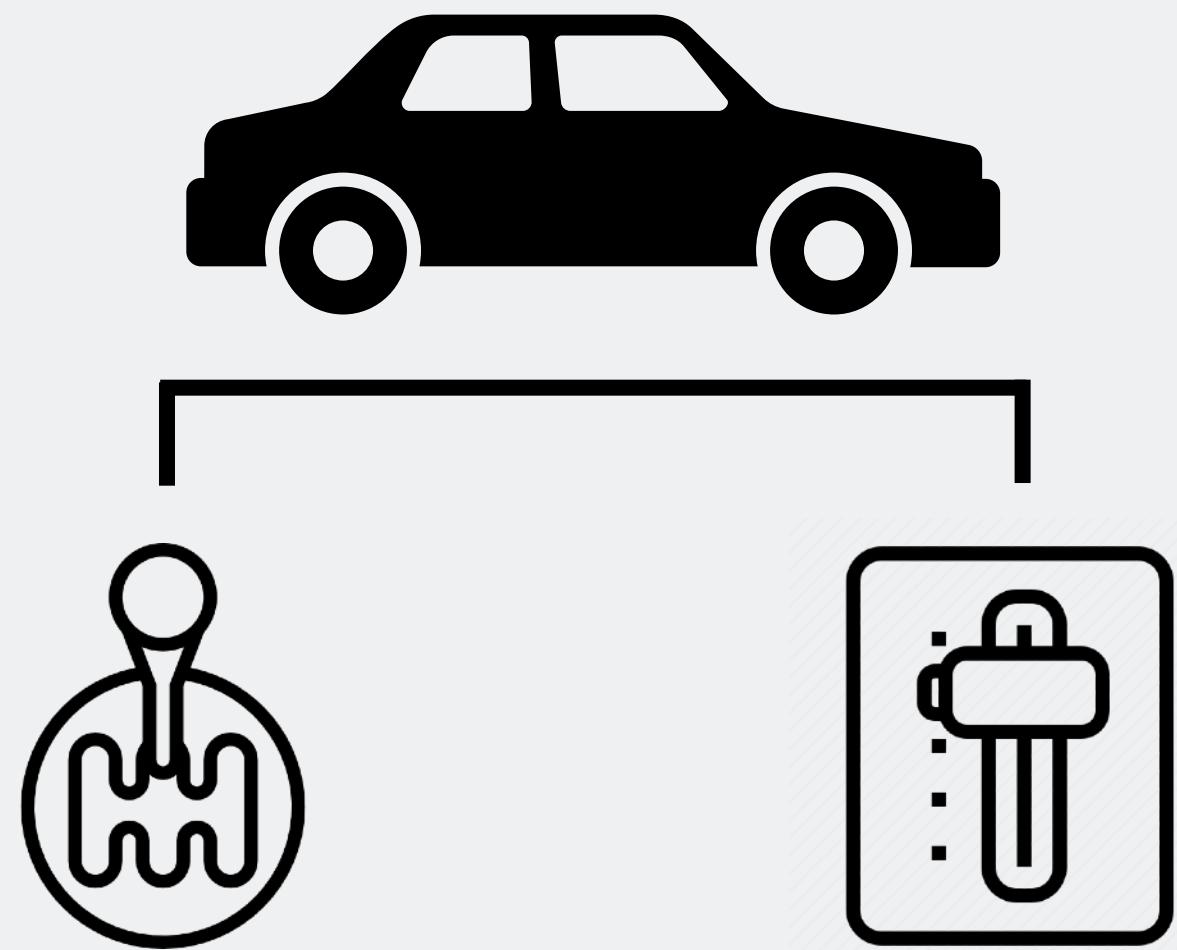


Image sources: [bookshelves](#) and [retrieval](#)

Information processing in SLA

- Two central tenets:
 2. Processing comprises of
 - **automatic** (fluent): little resources, parallel
 - **controlled** (voluntary): effortful, serial



Question: Which conversation(s) require more/less controlled processing?

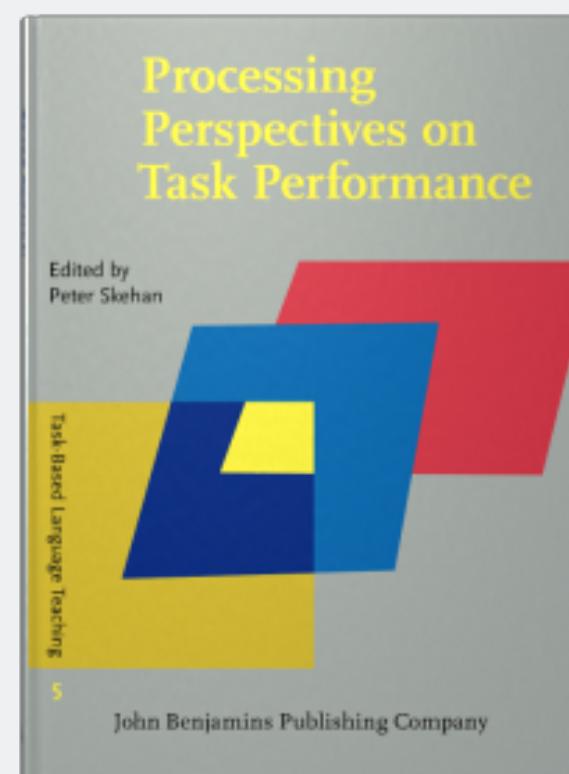
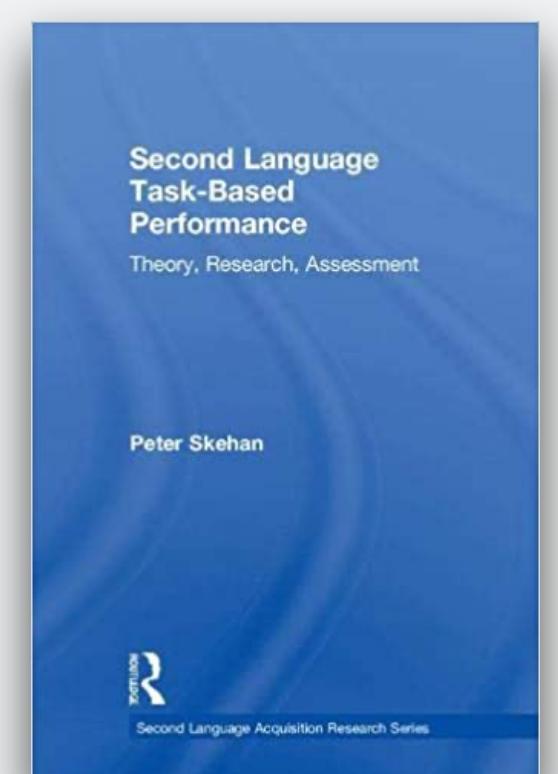
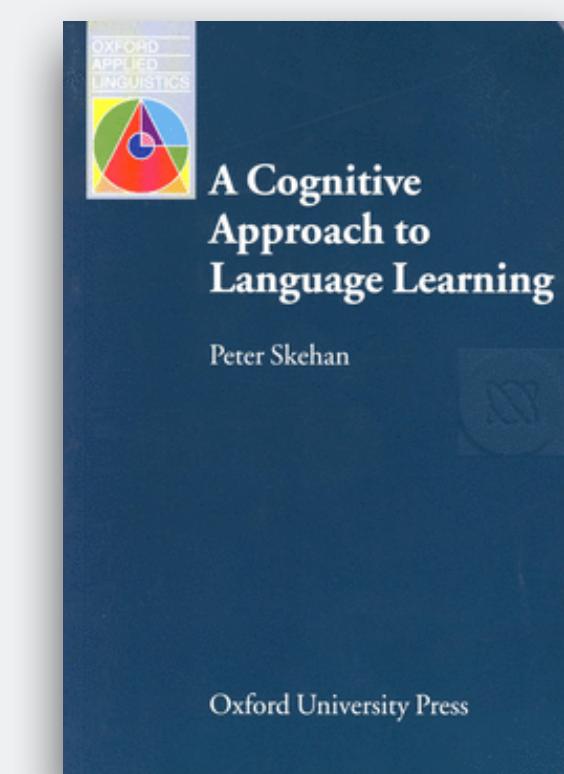
(1) with friend in L1; (2) with foreigner in L2; (3) with a stranger in loud party



Information processing in SLA



- **Trade-off effects:**
 - *When making efforts to say something complex that calls for the retrieval of an L2 word or structure that we recently learned, we may suddenly become less fluent and we may make more errors in our delivery*



Skill acquisition theory in SLA



- Learning: performance goes from controlled to automatic
 - Transformation happens through relevant practice
 - **Proceduralization** or **automatization**
 - **Declarative** or **explicit knowledge** (knowledge that)
 - **Procedural** or **implicit knowledge** (knowledge how)

Question: Can you state how to:

- (1) drive a car; (2) play an instrument; (3) describe an event in the past?

Skill acquisition theory in SLA



- “Practice makes perfect!”
 - Begin with a declarative knowledge via explicit explanations
 - Engage learners with *sustained* and *deliberate* practice
- Practice helps with future access (less effort, more automatic)
- Final outcome: **automaticity**
 - Fluent, automatic language performance + procedural knowledge

Skill acquisition theory in SLA



- Practice is subject to the **power law of learning**
 - Once optimal performance is reached, improvement will level off
 - Practice no longer yields large return
- In Psychology:



Image sources: [Wikipedia](#)



Skill acquisition theory in SLA

- What practice is best? At a micro level (i.e., lessons)
 - **distributed** practice (over sessions with intervals of rest) is better
 - **blocked** practice (AAA, BBB, CCC)
 - **interleaved** practice (ABC, ABC, ABC)
 - interleaved and longer-spaced practice (once a week of ABC)
- Desirable difficulties (confusion over new materials at new session)
 - More error + forgetting retrieval of materials in L2 knowledge



Skill acquisition theory in SLA

- Suzuki et al. (2020) compared interleaved against blocked practice in a picture description task

- 5 RC constructions
- That's the boy **who** is washing the dog
- That's the cat **which** is watching the bird
- That's the girl **whom** the cat is watching
-

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Yuichi Suzuki 
Kanagawa University, Japan

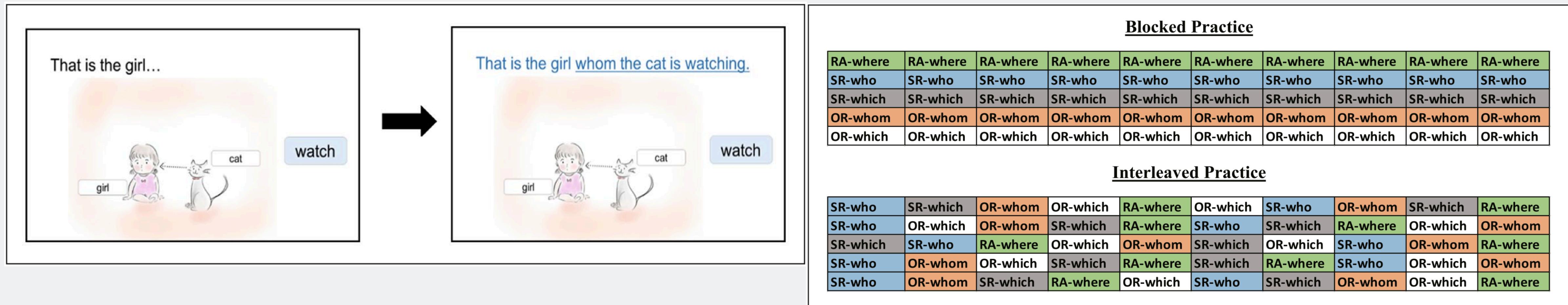
Satoko Yokosawa
Tsurumi Sogo High School, Japan

David Aline
Kanagawa University, Japan



Skill acquisition theory in SLA

- In Suzuki et al. (2020), participants practiced 50 times (10 verbs per RC)



- More accurate performance on both immediate and delayed posttests for the interleaved group

Google Scholar search

Searching on Google Scholar

- Google Scholar is a free academic search engine
 - search: repositories of publishers, universities, or scholarly websites
 - retrieve: journal & conference papers, academic books, pre-prints, theses & dissertations, technical reports, court opinions & patents, etc.

Searching on Google Scholar

Pros:

- Fast & easy to use
- Useful for finding grey literature
- Searches a wide range of outputs
- Supports searching in any language
- Can do forward citation tracking

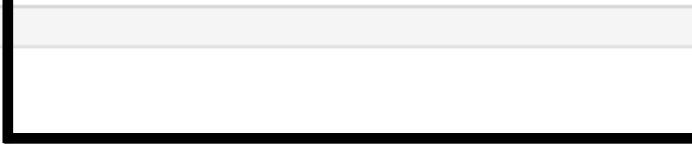
Cons:

- Incomplete coverage
- Unreliable citations
- Limited advanced search
- Contains info. from predatory journals
- Cannot do backward citation tracking



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... what extent L2 speakers show **adaptation**, and what the nature of priming and **adaptation** in L2 ... We had **expected** the native English and Korean L2 English groups to differ in prime verb ...
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Prediction and error-based learning in L2 processing and acquisition: a conceptual review [PDF] cambridge.org
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Chicago Montero-Melis, Guillermo, and T. Florian Jaeger. "Changing expectations mediate adaptation in L2 production." *Bilingualism: Language and Cognition* 23, no. 3 (2020): 602-617.

Harvard Montero-Melis, G. and Jaeger, T.F., 2020. Changing expectations mediate adaptation in L2 production. *Bilingualism: Language and Cognition*, 23(3), pp.602-617.

Vancouver Montero-Melis G, Jaeger TF. Changing expectations mediate adaptation in L2 production. *Bilingualism: Language and Cognition*. 2020 May;23(3):602-17.

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Return articles **authored by** Return articles **published in** Return articles **dated between** – e.g., 1996

Next week...

- Topic: Cognition (continued)
 - What roles does memory play in L2 learning?
 - How many “kinds” of memory are there?
- Reading:
 - USLA (5.5, 5.6, 5.7, and 5.8)
 - 5.5 = Long-term memory; 5.8 = L2 vocabulary knowledge in long-term memory
 - Quiz #3 from 9:30 to 9:45 (3 questions; 6 points total)