**Instructor:** Yu-Leng Lin

**Course:** Experimental design (實驗設計)

● **Goals**

   "Experimental Design" is intended for graduate students with prior coursework in phonology, language acquisition, or syntax. Students are expected to come to the course with research questions motivated by these areas.

   The course examines behavioral experiments on language production and comprehension. Students read and discuss articles in psycholinguistics, focusing on how experiments are designed to test hypotheses, whether the results address those hypotheses, and what confounding factors may affect interpretation. Students also design behavioral experiments in class and collect and analyze data to evaluate their own research questions.

**Tentative Syllabus (Subject to change)**

| Week | Date | Contents | Assessment |
|------|------|----------|------------|
| 1 | 2/24 | Syllabus<br>Language and thought | |
| 2 | 3/3 | ■ Lead discussion<br>■ Language and thought | Reading: Boroditsky, Schmidt, and Phillips (2003)<br><br>Leader: TBA<br>--Leading discussion: Language & thought (grammatical gender) |
| 3 | 3/10 | ■ Lead discussion<br>■ Language and thought | Reading: Horvath, Merkel, Maass, and Sczesny (2016)<br><br>Leader: TBA<br>--Leading discussion: Language & thought (grammatical gender & social perception) |
| 4 | 3/17 | ■ Lead discussion<br>■ Sentence processing | Reading: Chen and Bond (2010)<br><br>Leader: TBA<br>--Leading discussion: Language & thought (personality) |
| 5 | 3/24 | ■ Sentence processing | Reading: Lin (2015)<br><br>Leader: TBA<br>--Leading discussion: sentence comprehension & thematic order |
| 6 | 3/31 | ■ Sentence processing | Reading: Kwon, Ong, Chen, and Zhang (2019)<br><br>Leader: TBA<br>--Leading discussion: Animacy & structural information |

| 7 | 4/7 | ■ Discourse processing | Reading: Levy (2008: First half 前半段論文)<br>Leader: TBA<br>--Leading discussion: probability & processing difficulty |
|---|---|---|---|
| 8 | 4/14 | ■ Discourse processing | Reading: Levy (2008: Second half 後半段論文)<br>Leader: TBA<br>--Leading discussion: probability & processing difficulty |
| 9 | 4/21 | ■ Speech perception | **--Research proposal**: literature review and research gap<br><br>Reading: Dupoux, Kakehi, Hirose, Pallier, and Mehler (1999)<br><br>Leader: TBA<br>--Leading discussion: phonotactics & perceptual illusion |
| 10 | 4/28 | ■ Speech perception | |
| 11 | 5/5 | ■ **Midterm presentation** | -**Midterm presentation** (with experimental design and stimuli/materials ready) |
| 12 | 5/12 | ■ Lead discussion: your choice | Reading: TBA<br>--Leading discussion: TBA |
| 13 | 5/19 | ■ Lead discussion: your choice | Reading: TBA<br>--Leading discussion: TBA |
| 14 | 5/26 | ■ Lead discussion: your choice | --**Progress report**: with preliminary results ready<br><br>Reading: TBA<br>--Leading discussion: TBA |
| 15 | 6/2 | ■ **Final presentation** | --**Final presentation** |
| 16 | 6/9 | ■ Final revised paper due | --**Final revised paper due** |
| 17 | 6/16 | 16 + 2 Flexible teaching week | |
| 18 | 6/23 | 16 + 2 Flexible teaching week | |

- **Grading**

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|---|---|
| 1. Attendance and in-class active participation | 15% |
| 2. Leading discussion (with handouts ready) | 25% |
| 3. Written research proposal (literature review and research gap) | 10% |
| 4. Oral midterm presentation (slides) (with stimuli ready) | 10% |
| 5. Written progress report (with preliminary results ready) | 10% |
| 6. Oral final presentation (slides) | 10% |
| 7. Written final revised paper (at least 8000 words) | 20% |

(As for 2, 4 and 6, handouts and slides should be provided to facilitate discussion.)

- **Use of AI tools**

Students may use AI tools to assist with reading and understanding the assigned literature (e.g., summarizing or clarifying designated readings). However, because this course emphasizes original analysis, experimental design, and data interpretation, AI-generated content is not allowed in any drafts, presentation materials, or the term paper. This includes the use of AI tools to generate, modify, fabricate, or manipulate data, analyses, results, or interpretations. Any submission that includes AI-generated content will receive a grade of 0.

- **Readings**

Boroditsky, L., Schmidt, L. A., & Phillips, W. (2003). Sex, syntax, and semantics. *Language in mind: Advances in the study of language and thought, 22*(61-79), 1.

Chen, S. X., & Bond, M. H. (2010). Two languages, two personalities? Examining language effects on the expression of personality in a bilingual context. *Personality and Social Psychology Bulletin, 36*(11), 1514-1528.

Dupoux, E., Kakehi, K., Hirose, Y., Pallier, C., & Mehler, J. (1999). Epenthetic vowels in Japanese: A perceptual illusion? *Journal of Experimental Psychology: Human Perception and Performance, 25*(6), 1568.

Horvath, L. K., Merkel, E. F., Maass, A., & Sczesny, S. (2016). Does gender-fair language pay off? The social perception of professions from a cross-linguistic perspective. *Frontiers in Psychology, 6*, 2018.

Kwon, N., Ong, D., Chen, H., & Zhang, A. (2019). The role of animacy and structural information in relative clause attachment: evidence from Chinese. *Frontiers in Psychology, 10*, 1576.

Levy, R. (2008). Expectation-based syntactic comprehension. *Cognition, 106*(3), 1126-1177.

Lin, C.-J. C. (2015). Thematic orders and the comprehension of subject-extracted relative clauses in Mandarin Chinese. *Frontiers in Psychology, 6*, 1255.