Invited lecture series on L2 pragmatics (2020): Lecture 4

Shuai Li
Georgia State University, sli12@gsu.edu

Follow this and additional works at: https://scholarworks.gsu.edu/wcl_ilt

Part of the Modern Languages Commons

Recommended Citation
https://scholarworks.gsu.edu/wcl_ilt/4

This Lecture is brought to you for free and open access by the Department of World Languages and Cultures at ScholarWorks @ Georgia State University. It has been accepted for inclusion in World Languages and Cultures Invited Lectures / Talks by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact scholarworks@gsu.edu.
Research on L2 pragmatic routines

Shuai Li
October – December, 2020
Outline

• Session 1: Pragmatic routines & survey of relevant L2 pragmatics research.

• Session 2: An empirical study on pragmatic routine development in L2 Chinese.
Formulaic language

• Examples:
  • *How are you?*
  • *As far as I am concerned...*
  • 据我所知...
  • 认识你很高兴!
  • 就...而言...

• Formulaic language: "a sequence, continuous or discontinuous, of words or other elements, which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar." (Wary, 2008).
Pragmatic routines

• Examples:
  • 认识你很高兴！ or 很高兴认识你！
  • 哪里哪里。
  • 好久不见！
  • 吃了吗？
  • 请留步。
  • 请问 … 怎么走？

• Characteristics of pragmatic routines:
  • Fixed or semi-fixed syntactic strings.
  • Stored in mind as a holistic unit.
  • Frequent occurrence in a given speech community.
  • Tied to particular communicative situations; being the preferred way of saying among native speakers.
Pragmatic routines

- The last feature helps differentiate pragmatic routines from other related categories of formulaic language in Chinese, such as:
  - 成语
  - 谚语
  - 惯用语
  - “句型”， 之所以…是因为…; 不是…就是…
Pragmatic routines

- Relevant terms in L2 pragmatics research.
  - *Formula/formulae*: this term is used as an umbrella term.

  - *Conventional expressions*: this term highlights the social aspect of the construct., i.e., the preferred form(s) of native speakers in a specific context.

  - *Situation-bound utterances (SBUs)*. This term emphasizes the connection between a form(s) and its applicable communicative context.

  - Despite the nuances, these terms are often used interchangeably to refer to the same construct - pragmatic routines.
Why pragmatic routines?

Realize recurrent communicative needs, quick and reliable in a given speech community.

Embody societal knowledge that members of a specific community share.

Easier to remember and faster to produce because they are readily available from long-term memory – enhance accuracy and fluency.
Why pragmatic routines?

• L2 learners do not always demonstrate native-like use of routines. Idiosyncratic patterns of production are common, e.g.,

  Scenario: Responding to a shop assistant “How can I help you today?”
  Target: “I’m just looking.”
  L2: “I just look.”; “I’ll just looking.”; “Just I am looking.”

  Scenario: Leaving a friend’s home.
  Target: 走了。 L2: 再见!

  Scenario: before hanging up a phone call with one’s friend.
  Target: {就/先} 这样 L2: 再见!
• Researchers used to rely on native speakers’ intuitions and instructors’ teaching experiences to identify pragmatic routines for research.

• Recently, researchers have sought to empirically identify pragmatic routines from various sources, e.g.,
  • Corpora of authentic conversations.
  • Field notes.
  • TV reality shows.
  • Graffiti dialogues.
  • Diary accounts.
  • Soliciting NS responses (e.g., through DCTs).
  • Textbooks, dictionaries.
  • Learner reports during study abroad.
Identify/verify pragmatic routines

• Verify pragmatic routines: to establish conventionality by checking frequency of occurrence.

• Method #1: checking frequency of occurrence in an appropriate corpus.
  • Criterion: 10-40 occurrences per million words (Biber et al. 1999).
  • Possible corpora:
    • The Spoken Chinese Corpus of Situated Discourse (SCCSD).
    • The Lancaster Los Angeles Spoken Chinese Corpus (LLSCC).
    • Centre for Chinese Linguistics Corpus (Peking University).
    • Guojia Yuwei Yuliaoku ‘The State Language Commission Corpus’.
    • BLCU Chinese Corpus.
    • The Academia Sinica corpus (Version 3).
    • Lancaster Corpus of Mandarin Chinese.
    • UCLA Corpus of Written Chinese.
Identify/verify pragmatic routines

• Method #2: checking native speakers’ production frequency; 50% cut-off criterion (Bardovi-Harlig 2009).

• An example: Taguchi, Li & Xiao (2013).
  • Step 1: Consulted reference books; conducted observations and took field notes.
  • Step 2: Created 39 candidate situations.
  • Step 3: Created Chinese native speaker questionnaire (39 situations); each situation was followed by 2 questions:
    • (1) What would you say in that situation?
    • (2) Do you think this situation happens regularly? Y / N
Identify/verify pragmatic routines


- Step 4: Administered the questionnaire to 38 native speakers of Chinese in China.

- Step 5: Analyzed native speaker data.
  - (1) Frequency of situation occurrence: 50% cut-off.
  - (2) Core formulaic expressions: 50% cut-off. (Bardovi-Harlig, 2009).
Identify/verify pragmatic routines


<table>
<thead>
<tr>
<th>Item</th>
<th>Scenario description</th>
<th>Context judgment (N = 38)</th>
<th>Target formulaic expressions*</th>
<th>Freq. of use (N = 38)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Money withdrawal: At a bank, you want to withdraw RMB 300. What would you say to the bank teller?</td>
<td>31 (81.58%)</td>
<td>取 300 (块 钱)。</td>
<td>19 (50.00%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Withdraw 300 (MW money).</em></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Take a cab: You just got in a taxi. You want to go to Tsinghua University. What would you say to the taxi driver?</td>
<td>24 (97.37%)</td>
<td>{去/到} (一下) {to go/to} (a bit) 清华大学。 Qinghua University.</td>
<td>31 (81.58%)</td>
</tr>
<tr>
<td>3</td>
<td>Bargain: In a market, you want to buy a T-shirt but you think it’s a bit expensive. You want the vendor to lower the price. What would you say to the vendor?</td>
<td>37 (97.37%)</td>
<td>便宜点儿 (吧/嘛)。</td>
<td>19 (50.00%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Cheaper a bit</em> (PA)</td>
<td></td>
</tr>
</tbody>
</table>
Survey of research findings

TARGET LANGUAGES.

DESCRIPTIVE STUDIES.

EXPLANATORY STUDIES.
Survey of research findings

• Targeted second languages.
  • Predominantly, English.
    • Dr. Kathleen Bardovi-Harlig @ Indiana University – Bloomington.
    • Dr. Carstern Roever @ University of Melbourne.
    • Dr. Naoko Taguchi @ Northern Arizona University.
  • Recently, Chinese.
    • Taguchi, Li & Xiao (2013): developmental patterns during study abroad.
    • Yang (2016): proficiency effects on routine recognition and production.
    • Taguchi, Li, Q., Tang (2017): teaching routines in a game-based environment.
    • Bardovi-Harlig & Su (2018): proficiency effects on routine production; patterns of development.
    • Li, Taguchi & Xiao (forthcoming): to be introduced in Session 2.
  • Japanese, French, German.
Survey of research findings

• Descriptive studies: Recognition/comprehension.

• L2 learners’ ability to accurately recognize authentic pragmatic routines and modified versions develop with proficiency (Bardovi-Harlig, 2010) and length of stay (Roever, 2005).
  • Pragmatic recognition task (Bardovi-Harlig & Bastos, 2011).
    • “No problem!” (Audio only):
      I often hear this
      I sometimes hear this
      I never hear this
    • “No problems!” (Audio only):
      I often hear this
      I sometimes hear this
      I never hear this
Survey of research findings

• Descriptive studies: Production.

• L2 learners’ ability to produce pragmatic routines develop with proficiency and during study abroad, yet:
  • Generally, underproduction compared with NS baseline.
  • Reflective of interlanguage grammar. E.g., *I’ll just looking.* (Dept. store).
  • Idiosyncratic expressions. 我不要贵(bargain).
  • Rely on lexical cores: (麻烦/请) 让一下(pass a crowd).
  • Rely on target frame-and-slot structures: xxx 在哪儿? (cashier)
    • 老板在哪儿? 买东西在哪儿?
Survey of research findings

- Explanatory studies.

- **Proficiency**: generally, positive influence on recognition and, particularly, production (e.g., Bardovi-Harlig & Su, 2018; Yang, 2016).

- **Length of stay**: somewhat mixed findings, sometimes confounded with proficiency (e.g., Bardovi-Harlig & Bastos, 2011; Roever, 2011; Taguchi, 2011).

- **Intensity of interaction / frequency of encounter**: limited empirical findings, but generally positive effect (e.g., Bardovi-Harlig & Bastos, 2011; Taguchi, Li & Xiao, 2013).

- **Learner agency and identity** can affect whether they choose to conform to the native speaker preferred expressions, and which native speakers’ norm to follow (e.g., David, 2007).

- Focused **instruction** can promote recognition and production (e.g., Bardovi-Harlig & Vallenga, 2012; Bardovi-Harlig, Mossman & Su, 2017).
A sample study: Bardovi-Harlig & Bastos (2011)

- Research question: how do proficiency, length of stay, and intensity of contact influence (1) recognition of L2 routines and (2) production of L2 routines?

- Participants:
  - 122 ESL learners (intermediate-low to advanced-low).
  - 49 native speakers.
A sample study: Bardovi-Harlig & Bastos (2011)

**Instruments:**
- Proficiency: standardized English placement test.
- Length of stay (in months): questionnaire.
- Intensity of contact: questionnaire, e.g.,
  - How much time do you think you talk to native speakers?
    A. Never.
    B. 1 hr per week.
    C. 2-4 hrs per week.
    D. 5 hrs or more per week.
A sample study: Bardovi-Harlig & Bastos (2011)

• Pragmatic recognition task.
  “No problem!” (Audio only):

  I often hear this    I sometimes hear this    I never hear this

  “No problems!” (Audio only):

  I often hear this    I sometimes hear this    I never hear this

• Pragmatic production task.

  You go to a clothing store and you need to find a new shirt. A salesperson approaches you. You don’t want the salesperson’s assistance.

  (Audio only): “Can I help you?”

  (Next screen, visual only) You say: ____________
A sample study: Bardovi-Harlig & Bastos (2011)

- Findings (based on separate logistic regressions):
  - Pragmatic recognition: only the effects of intensity of interaction were significant.
  - For pragmatic production: both Intensity of interaction and proficiency showed significant effects.
  - No effect at all for length of stay.
Future research directions

• The construct:
  • Pragmatic routines for computer/Internet-based communication.
  • The role of prosody in pragmatic routine recognition and production.

• Methodological:
  • Variations within native speakers / NSs’ norms (sample size).
  • 50% cut-off, what about non-dominant expressions? An issue taken up in Session 2.

• Instruction and material development:
  • When and how to teach pragmatic routines?
  • Textbook analyses and development.
Let's take a short break.

Will be back soon.
Session 2: Effects of proficiency on pragmatic routine development in L2 Chinese during study abroad

Outline

- Background / literature review
- Method
- Results / discussions
- Limitations / implications
Identifying pragmatic routines

• **Dominant pragmatic routines (DR)**
  
  50% cut-off (Bardovi-Harlig, 2009): An expression produced by at least 50% of a native speaker sample.

• Problem with is approach?
  
  What about an expression produced by, say, 45% or 35% of a native speaker sample?

• Perhaps there is a need to research **non-dominant pragmatic routines (NDR)**.
Factors influencing pragmatic routine development

- Intensity of interaction (e.g., Bardovi-Harlig & Bastos, 2011)
- Study abroad experience (e.g., Roever, 2012)
- Exposure to target routine-use situations (e.g., Taguchi et al., 2013)
- Linguistic proficiency (e.g., Bardovi-Harlig, 2010)
- Affect/attitude/identity (e.g., Davis, 2007; Sánchez-Hernández, 2018)
Effects of proficiency: Cross-sectional studies

• Overall a positive effect of proficiency on pragmatic routine performance, although:

  • Mixed findings regarding the effects of proficiency on the receptive knowledge of pragmatic routines (Bardovi-Harlig, 2010; Gong & Jiang, 2017; Roever, 2012).

  • When both recognition and production of pragmatic routines were examined, proficiency was found to influence production but less so on recognition (Bardovi-Harlig & Bastos, 2011; Yang, 2016).

  • Preliminary evidence suggests that the effects of proficiency on routine production may be mediated by the linguistic characteristics of targeted routines (Taguchi, 2013).
Effects of proficiency: Longitudinal studies

- Mostly conducted in a study abroad context.

- All reported notable development in recognition or production of pragmatic routines (e.g., Alcón-Soler & Sánchez-Hernández, 2017; Sánchez-Hernández, 2018; Taguchi et al. 2013).

- Proficiency was not a targeted independent variable in longitudinal studies until very recently. Initial evidence indicates that proficiency does not affect the trajectories of pragmatic routine development during study abroad (Alcón-Soler & Sánchez-Hernández, 2017; Sánchez-Hernández, 2018).
Cross-sectional vs. longitudinal findings

• Cross-sectional studies: Leaning towards a positive role of proficiency in enhanced production of pragmatic routines.

• Longitudinal studies: Suggesting little effect of proficiency on the developmental trajectories of pragmatic routines.

• What’s next?
  • A study with combined longitudinal and cross-sectional design.
  • Expanding the targets of analysis to include dominant and non-dominant routines.
Research question

• Does proficiency affect the development of pragmatic routine production in L2 Chinese during study abroad?
Method

• 109 college-level American learners of Chinese (60 males, 49 females, mean age = 20.39 years, $SD = 0.86$).

• Enrolled in a 15-week study abroad program in Beijing.

• Prior to studying abroad, received 1 to 7 years of formal instruction on Chinese (mean = 2.1 years).

• All lived on campus and were encouraged to use as much Chinese as possible.

• Curriculum did not specifically cover pragmatic routines.
Chinese proficiency

• Placement test: New HSK Level 4 + Intermediate HSKK (range: 0-400)

• Lower-proficiency (LP) group: Mean test score 186.27 (SD = 25.24)

• Higher-proficiency (HP) group: Mean test score 270.44 (SD = 32.31)

• LP vs. HP: $t(107) = -15.16, p < .001$. 
Computerized Oral Discourse Completion Test with Visual Aid (k=12)

In a market, you want to buy a T-shirt but you think it's a bit expensive. You want ask the vendor to lower the price. What would you say to him?
12 scenarios, from Taguchi, Li & Xiao (2013)

• #1 Bank: At a bank, you want to withdraw RMB 300. What would you say to the bank teller?

• #2 Bargain: In a market, you want to buy a T-shirt, but you think it’s a bit expensive. You want the vendor to lower the price. What would you say to the vendor?

• #3 Bus: A bus is coming to a bus stop where you are waiting. You want to go to Beijing University, but you are not sure whether the bus stops there. How would you ask the bus driver?

• #4 Cashier: At a department store, you want to know where the cashier is. How would you ask the shop assistant?

• #5 Department store: In a department store, a shop assistant asks whether you would like to buy anything. You do not intend to buy anything. How would you respond?

• #6 Empty seat: It is very crowded in the McDonald’s. You see several people sitting around a table. However, there is still one empty chair next to the table. You want to sit there. What would you say to the people sitting around that table?

• #7 End a phone call: You and your friend are talking on the phone. It seems that you both have said all you want to say. How would you end the phone call?

• #8 Hat: In a department store, you want to buy a hat but want to try it on first. What would you say to the shop assistant?

• #9 Pass a crowd: You are walking in the street. A person is standing in your way, but you want to pass by. What would you say to that person?

• #10 Post office: At a local post office, you want to send a parcel. What would you say to the clerk?

• #11 Restaurant: In a restaurant, you want to take the leftovers with you. What would you say to the waiter/waitress?

• #12 Wrong phone call: When you answer your phone, you found the person on the other end dialed your number by mistake. What would you say?
Data analysis: rating & linguistic analysis

• Rating: Based on a 6-point holistic rating scale assessing:
  • Clarity of communicative function (i.e., the extent to which the intended communicative function is realized).
  • Form target-likeness (i.e., the extent to which an expression conforms to intended target routines).
  • Grammaticality (i.e., the extent to which an expression is free of syntactic and/or lexical errors).

• 2 native Chinese raters:
  • Joint rating of 3% data
  • Interrater reliability: $r = .92$
<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
</table>
| 6 Excellent | • Communicative function fully realized  
               • Form conforms to the native-like expression as judged by the native speaker rater                                                  |
| 5 Very good | • Communicative function mostly realized  
               • Form slightly different from the target expression (i.e., containing minor syntactic/lexical errors and/or a few extra linguistic elements that do not obscure the meaning of the utterance) as judged by the native speaker rater |
| 4 Good   | • Communicative function somewhat realized  
               • Form somewhat non-native-like (i.e., non-typical way of saying)  
               • May contain no, almost no, or minor syntactic/lexical errors   |
| 3 Fair   | • Communicative function somewhat realized  
               • Form clearly non-native-like, sometimes with notable syntactic and/or lexical errors (i.e., code switching, key lexical items) that clearly obscure the intended meaning |
| 2 Poor   | • Communicative function not realized  
               • Expression incomprehensible (due to serious phonological, syntactic/lexical error) OR  
               • Expression totally irrelevant to a given scenario (expression in this case may contain no, almost no, or some syntactic/lexical error) OR  
               • Expression is too limited for judgment |
| 1 Cannot evaluate | • No response (opt out)                                                                                                                                 |
Rating data analysis

- Due to violations to the normality assumption for most subsets of the data, we employed non-parametric statistical procedures (i.e., Wilcoxon tests, Mann Whitney U tests).

- Within-group comparisons:
  - Pre- and posttests comparisons for the LP and HP groups, firstly based on the average ratings for all 12 scenarios (the α level was set at .05), and secondly based on the ratings for each of the 12 scenarios (with 12 pairs of comparisons, the α level was set at .004 after the Bonferroni correction).

- Between-group comparisons:
  - Between-group comparisons were made for pretest and posttest ratings, firstly based on the averaged ratings of all 12 scenarios (the α level was set at .05), and secondly based the ratings for each of the 12 scenarios (the α level was set at .004 after the Bonferroni correction).
Linguistic analysis

Details to be discussed in results section.
**Results: Rating**

- Pre-post comparisons: Overall ratings based on 12 scenarios.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest Mean</th>
<th>Pretest SD</th>
<th>Posttest Mean</th>
<th>Posttest SD</th>
<th>Pretest vs. posttest comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP $(n = 54)$</td>
<td>3.50</td>
<td>0.75</td>
<td>4.36</td>
<td>0.55</td>
<td>$Z = -6.22, p &lt; .001, \eta^2 = .73^*$</td>
</tr>
<tr>
<td>HP $(n = 55)$</td>
<td>4.35</td>
<td>0.64</td>
<td>4.98</td>
<td>0.44</td>
<td>$Z = -5.52, p &lt; .001, \eta^2 = .56^*$</td>
</tr>
</tbody>
</table>
Pre-post comparisons: Individual scenarios by group

- LP group: significant improvement in 10 of 12 scenarios.
- HP group: significant improvement in 6 of 12 scenarios.

Overlaps and differences

- 6 scenarios: both groups showed significant gains (Scenarios #2, #5, #7, #8, #11, #12).
- 1 scenario: where neither group improved (Scenario #3).
- 4 scenarios: only the LP group gained (Scenario #1, #4, #6, #10).
- 1 scenario: only the HP group gained (i.e., Scenario #9).
• Between-group comparisons: Overall ratings based on 12 scenarios.

<table>
<thead>
<tr>
<th>TIME</th>
<th>LP VS. HP COMPARISON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>$Z = -5.62$, $p &lt; .001$, $\eta^2 = .60^*$</td>
</tr>
<tr>
<td>Posttest</td>
<td>$Z = -5.57$, $p &lt; .001$, $\eta^2 = .57^*$</td>
</tr>
</tbody>
</table>
Between group comparisons for individual scenarios at pre- and posttests:

- 4 scenarios: HP group maintained their advantage over the LP group over time (Scenarios #4, #5, #11, #12).

- 4 scenarios: no significant difference between the two groups at any time (i.e., Scenarios #1, #2, #3, #7).

- 3 scenarios: HP group outperformed the LP group at pretest but lost the edge through posttest (Scenarios #6, #8, #10).

- 1 scenario: no difference was found at pretest, but the HP group outperformed the LP group at posttest (Scenario #9).
Within-group comparisons:
LP and HP groups both showed significant improvement over time, but the magnitude of improvement was larger for the LP group than for the HP group.

Post-hoc analysis comparing overall gain scores:
LP > HP ($Z=-1.99$, $p = .047$)

Explanation:
Ceiling effect for the HP group (pretest mean: 4.35) cf. LP group (pretest mean: 3.50)
The need for improving oral production was presumably more urgent for the LP group than for the HP group.
Rating results: Summary & Discussion (continued)

• Between-group comparisons:

**Overall ratings**: HP group outperformed LP group throughout entire study abroad period, confirming a positive effect of proficiency on routine production (e.g., Bardovi-Harlig & Bastos, 2011; Yang, 2016).

**Individual scenario ratings**: HP group outperformed LP group over time in 4 scenarios; HP group did not show any advantage in another 4 scenarios; HP group’s initial edge disappeared over time in 3 scenarios; HP group outperformed LP group only at the end in 1 scenario.

→ Effects of proficiency on pragmatic routine production are likely to depend on the specific scenarios.
Linguistics analysis

• Purpose: Compare patterns of change across the two proficiency groups by simultaneously tracking the production of dominant pragmatic routines (DR), non-dominant pragmatic routines (NDR), and interlanguage expressions (IE).

• 4 steps involved:
  • Identifying dominant (DR) and non-dominant routines (NDR) in NS data.
  • Identifying interlanguage expressions (IE) in learner data.
  • Characterizing pathways of change for each targeted expression.
  • Summarizing patterns of change for each scenario and for each learner group based on the individual pathways of change.
Step 1

• Identifying dominant and non-dominant routines in the NS ($N=39$) data collected by Taguchi, Li & Xiao (2013).

• Dominant routines (DR): 50% cut-off.

• Non-dominant routines (NDR): 2$^{nd}$ most frequently produced expression(s) in a given scenario whose production frequency substantially surpass the remaining expressions.
• Scenario #9 (pass a crowd).

1 dominant (61%)
{} {麻烦/请} {让一下/让一让/过一下}
{trouble / please} {yield a bit / yield / pass a bit}

2 non-dominant (29%; 26%)
不好意思 sorry
借过 excuse me

4 other expressions (below 5%)
Step 1 (continued)

- 12 scenarios generated 76 expressions, including:

  12 dominant routines (DRs): Mean frequency: 60% (range: 50-82%)

  10 non-dominant routines (NDRs): Mean frequency: 38% (range 26-47%)
Step 2

• Identifying interlanguage expressions (IE) in learner (N=109) data.

• Expressions produced by at least 20% of the LP or HP learners at either pretest or posttest (Taguchi, Li & Xiao, 2013).

• 3 Types of interlanguage expressions (IE):
  • (1) Target lexical core (TL): An expression containing a core lexical item of a target dominant pragmatic routine, e.g., Scenario #9 (Crowd)

    Target dominant pragmatic routine:
    {麻烦/请} {让一下/让一让/过一下}
    {trouble / please} {yield a bit / yield a yield / pass a bit}

    Target lexical core (TL):
    让一下 {yield a bit}
Step 2 (continued)

(2) Target frame-and-slot structure (TFS): An expression following the same syntactic structure as a target dominant pragmatic routine but with non-native choice of words (e.g., verbs, nouns), e.g., Scenario #4 (Cashier)

Dominant pragmatic routine:
{收银台/款台}在哪儿?
{money-receiving counter / payment counter} is in where?

Target frame-and-slot structure (TFS):
老板在哪儿?
Boss is in where?
Step 2 (continued)

• (3) Idiosyncratic expressions (IE): An expression not belonging to the above two types and is:

   A. Only found in the learner data, e.g., Scenario #5 (Shopping)
      (我)不{要/想}买 (I) no {want / want} buy *
      (*Not found in NS data)

   B. Found in the native speaker data, but with very low production ratio e.g., Scenario #2 (Bargain)
      太贵(了) Too expensive (tone intensifier)
      (NS production ratio: 5.26%)
Step 2 (continued)

• Summary: 3 types of interlanguage expressions:
  • Target lexical core (TL).
  • Target frame-and-slot structure (TFS).
  • Idiosyncratic expressions (IE).
  • A total of 24 interlanguage expressions identified in learner data.

• A total of 46 routines/expressions identified for analysis:
  • 12 dominant routines (DR).
  • 10 non-dominant routines (NDR).
  • 24 interlanguage expressions.
### Step 3

- Characterizing **pathways of change** for each routine/expression.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Expressions *</th>
<th>Group</th>
<th>Pretest Frequency (%)</th>
<th>Posttest Frequency (%)</th>
<th>Change Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#12 Wrong phone call</td>
<td>(您/你) 打错了  (You (honorific) / you) dialed wrong PA (DR, 57.89%)</td>
<td>LP (n = 54)</td>
<td>1 (2%)</td>
<td>8 (15%)</td>
<td>7 (13%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HP (n = 55)</td>
<td>12 (22%)</td>
<td>19 (35%)</td>
<td>7 (13%)</td>
</tr>
<tr>
<td>不好意思 Sorry (NDR, 34.21%)</td>
<td></td>
<td>LP (n = 54)</td>
<td>0 (0%)</td>
<td>7 (13%)</td>
<td>7 (13%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HP (n = 55)</td>
<td>5 (9%)</td>
<td>14 (25%)</td>
<td>9 (16%)</td>
</tr>
<tr>
<td>对不起 my apologies (IE-1)</td>
<td></td>
<td>LP (n = 54)</td>
<td>22 (41%)</td>
<td>21 (39%)</td>
<td>-1 (-2%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HP (n = 55)</td>
<td>25 (45%)</td>
<td>21 (38%)</td>
<td>-4 (-7%)</td>
</tr>
<tr>
<td>我觉得 + clause I feel + clause (IE-2)</td>
<td></td>
<td>LP (n = 54)</td>
<td>4 (7%)</td>
<td>18 (33%)</td>
<td>14 (26%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HP (n = 55)</td>
<td>18 (32%)</td>
<td>32 (58%)</td>
<td>14 (25%)</td>
</tr>
</tbody>
</table>
Step 3 (continued)

• Range of pre-/post change in absolute values: 0.00% and 38.89%.
  
  • How to determine meaningful changes?
  
  • Calculated percentage changes for all 46 expressions for both proficiency groups → a total of 92 values.
  
  • Converted the 92 values into absolute values and determined the median: 9.09% - A conservative approach.
  
  • 9.09% was used as the cut-off for identifying meaningful changes.
    Pre-/post change within the range of -9.09% ~ 9.09%: stabilization (=)
    Pre-/post change larger than 9.09%: increase (↑)
    Pre-/post change less than -9.09%: decrease (↓)
## Step 3 (continued)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Expressions</th>
<th>Group</th>
<th>Pretest Frequency (%)</th>
<th>Posttest Frequency (%)</th>
<th>Change Frequency (%)</th>
<th>Pathways of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>#12 wrong phone call</td>
<td>(您/你) 打错了 (You (honorific) / you) dialed wrong</td>
<td>LP (n = 54)</td>
<td>1 (2%)</td>
<td>8 (15%)</td>
<td>7 (13%)</td>
<td>Increase ↑</td>
</tr>
<tr>
<td></td>
<td>PA (DR, 57.89%)</td>
<td>HP (n = 55)</td>
<td>12 (22%)</td>
<td>19 (35%)</td>
<td>7 (13%)</td>
<td>Increase ↑</td>
</tr>
<tr>
<td></td>
<td>不好意思 Sorry (NDR, 34.21%)</td>
<td>LP (n = 54)</td>
<td>0 (0%)</td>
<td>7 (13%)</td>
<td>7 (13%)</td>
<td>Increase ↑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HP (n = 55)</td>
<td>5 (9%)</td>
<td>14 (25%)</td>
<td>9 (16%)</td>
<td>Increase ↑</td>
</tr>
<tr>
<td></td>
<td>对不起 my apologies (IE-1)</td>
<td>LP (n = 54)</td>
<td>22 (41%)</td>
<td>21 (39%)</td>
<td>-1 (-2%)</td>
<td>Stabilization =</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HP (n = 55)</td>
<td>25 (45%)</td>
<td>21 (38%)</td>
<td>-4 (-7%)</td>
<td>Stabilization =</td>
</tr>
<tr>
<td></td>
<td>我觉得 + clause (IE-2)</td>
<td>LP (n = 54)</td>
<td>4 (7%)</td>
<td>18 (33%)</td>
<td>14 (26%)</td>
<td>Increase ↑</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HP (n = 55)</td>
<td>18 (32%)</td>
<td>32 (58%)</td>
<td>14 (25%)</td>
<td>Increase ↑</td>
</tr>
</tbody>
</table>
Step 4

- Summarizing **patterns of change** for each scenario and for each group based on the individual pathways of development.
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Group</th>
<th>DR</th>
<th>NDR-1</th>
<th>NDR-2</th>
<th>TFS-1</th>
<th>TFS-2</th>
<th>TL</th>
<th>IE-1</th>
<th>IE-2</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Bank</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>↓</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td>#2 Bargain</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>#3 Bus</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>#4 Cashier</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↓</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↓</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td></td>
<td>D</td>
</tr>
<tr>
<td>#5 Shopping</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td></td>
<td></td>
<td>↑</td>
<td>↓</td>
<td></td>
<td></td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td></td>
<td></td>
<td>↑</td>
<td>↓</td>
<td></td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>#6 Seat</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td>=</td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td>A, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td>=</td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>#7 Phone call</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
</tr>
<tr>
<td>#8 Hat</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td></td>
<td></td>
<td>=</td>
<td></td>
<td>=</td>
<td>=</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td></td>
<td></td>
<td>↓</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>#9 Crowd</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td>=</td>
<td>↑</td>
<td>↓</td>
<td></td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>↑</td>
<td>↓</td>
<td></td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td>#10 Post office</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td>=</td>
<td></td>
<td>↑</td>
<td></td>
<td></td>
<td>A, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td>=</td>
<td></td>
<td>↑</td>
<td></td>
<td></td>
<td>A, D</td>
</tr>
<tr>
<td>#11 Restaurant</td>
<td>LP (n = 54)</td>
<td>=</td>
<td></td>
<td></td>
<td>↑</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>B, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td></td>
<td></td>
<td>↑</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td>#12 Wrong phone call</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td>=</td>
<td></td>
<td>↑</td>
<td>A</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td>=</td>
<td>↑</td>
<td>A</td>
<td>D</td>
<td></td>
<td>A, D</td>
</tr>
</tbody>
</table>
Step 4 (continued)

• 4 patterns of change

**Pattern A**: Development toward NS’s norms, which is characterized by increased production of dominant and/or non-dominant routines (e.g., HP group Scenario #6).
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Group</th>
<th>DR</th>
<th>NDR-1</th>
<th>NDR-2</th>
<th>TFS-1</th>
<th>TFS-2</th>
<th>TL</th>
<th>IE-1</th>
<th>IE-2</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Bank</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>↓</td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td>#2 Bargain</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td>A, B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#3 Bus</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td></td>
<td></td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td></td>
<td></td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#4 Cashier</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td>↓</td>
<td>↑</td>
<td>↑</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>↓</td>
<td>=</td>
<td>↑</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#5 Shopping</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>↓</td>
<td>A, B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#6 Seat</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>A, D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#7 Phone call</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#8 Hat</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↓</td>
<td>=</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#9 Crowd</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>↑</td>
<td>↓</td>
<td>A, B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>↑</td>
<td>↓</td>
<td>A, B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#10 Post office</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>A, D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>A, D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#11 Restaurant</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>↑</td>
<td>B, D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>A, B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#12 Wrong phone call</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>A, D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>A, D</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Step 4 (continued)

**Pattern B:** Development toward target lexical cores (e.g., Scenario #2).
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Group</th>
<th>DR</th>
<th>NDR-1</th>
<th>NDR-2</th>
<th>TFS-1</th>
<th>TFS-2</th>
<th>TL</th>
<th>IE-1</th>
<th>IE-2</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Bank</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>#2 Bargain</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td></td>
<td>↑</td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td></td>
<td>=</td>
<td></td>
<td>↑</td>
<td></td>
<td>=</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>#3 Bus</td>
<td>LP (n = 54)</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>#4 Cashier</td>
<td>LP (n = 54)</td>
<td>=</td>
<td></td>
<td>↓</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td></td>
<td>↓</td>
<td></td>
<td>=</td>
<td></td>
<td>↑</td>
<td></td>
<td>D</td>
</tr>
<tr>
<td>#5 Shopping</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td></td>
<td></td>
<td>↑</td>
<td>↓</td>
<td></td>
<td></td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td></td>
<td></td>
<td>↑</td>
<td>↓</td>
<td></td>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>#6 Seat</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>#7 Phone call</td>
<td>LP (n = 54)</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td></td>
<td></td>
<td>↑</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
</tr>
<tr>
<td>#8 Hat</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>↓</td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>#9 Crowd</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td></td>
<td>↑</td>
<td></td>
<td>↓</td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td></td>
<td>↑</td>
<td></td>
<td>↓</td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td>#10 Post office</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A, D</td>
</tr>
<tr>
<td>#11 Restaurant</td>
<td>LP (n = 54)</td>
<td>=</td>
<td></td>
<td></td>
<td>↑</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
<td>B, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td></td>
<td></td>
<td>↑</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A, B</td>
</tr>
<tr>
<td>#12 Wrong phone call</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td></td>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td>A, D</td>
</tr>
</tbody>
</table>
Step 4 (continued)

**Pattern C:** Full stabilization across all the pragmatic expressions under investigation for a particular scenario (e.g., Scenario #3).
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Group</th>
<th>DR</th>
<th>NDR-1</th>
<th>NDR-2</th>
<th>TFS-1</th>
<th>TFS-2</th>
<th>TL</th>
<th>IE-1</th>
<th>IE-2</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Bank</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>↓</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td>#2 Bargain</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>B</td>
</tr>
<tr>
<td>#3 Bus</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>C</td>
</tr>
<tr>
<td>#4 Cashier</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>D</td>
</tr>
<tr>
<td>#5 Shopping</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>B</td>
</tr>
<tr>
<td>#6 Seat</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td>#7 Phone call</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>D</td>
</tr>
<tr>
<td>#8 Hat</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↓</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td>#9 Crowd</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
</tr>
<tr>
<td>#10 Post office</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A, D</td>
</tr>
<tr>
<td>#11 Restaurant</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>↑</td>
<td>↑</td>
<td>B, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
</tr>
<tr>
<td>#12 Wrong phone call</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>↑</td>
<td>A, D</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>↑</td>
<td>A, D</td>
</tr>
</tbody>
</table>
Step 4 (continued)

**Pattern D**: Change toward idiosyncratic expressions (e.g., LP group Scenario #4).
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Group</th>
<th>DR</th>
<th>NDR-1</th>
<th>NDR-2</th>
<th>TFS-1</th>
<th>TFS-2</th>
<th>TL</th>
<th>IE-1</th>
<th>IE-2</th>
<th>Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Bank</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td></td>
<td>↓</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A</td>
</tr>
<tr>
<td>#2 Bargain</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#3 Bus</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#4 Cashier</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td>↓</td>
<td></td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>↓</td>
<td></td>
<td>=</td>
<td>↑</td>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#5 Shopping</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#6 Seat</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td></td>
<td>=</td>
<td>=</td>
<td>A, D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td>=</td>
<td>=</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#7 Phone call</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#8 Hat</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>=</td>
<td></td>
<td>=</td>
<td>=</td>
<td>=</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↓</td>
<td></td>
<td>=</td>
<td>=</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#9 Crowd</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#10 Post office</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>A, D</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>A</td>
<td>D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#11 Restaurant</td>
<td>LP (n = 54)</td>
<td>=</td>
<td>=</td>
<td></td>
<td>↑</td>
<td>↑</td>
<td>=</td>
<td>B, D</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td>↑</td>
<td>=</td>
<td>=</td>
<td>A, B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#12 Wrong phone call</td>
<td>LP (n = 54)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td>=</td>
<td>=</td>
<td>↑</td>
<td>A, D</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HP (n = 55)</td>
<td>↑</td>
<td>↑</td>
<td></td>
<td>=</td>
<td>↑</td>
<td>=</td>
<td>A, D</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Patterns of change: LP vs. HP groups

• Both groups showed the same patterns of change in 8 of the 12 scenarios: Scenarios #1, #3, #4, #7, #8, #9, #10, #12.

• For the other 4 scenarios (i.e., Scenarios #2, #5, #6, #11), there was always an overlap between the two groups.

• Summary: The two proficiency groups demonstrated considerable similarities and overlaps in the observed patterns of change across the majority of the 12 scenarios.

  ➔ Proficiency does not necessarily influence patterns of development in routine production during study abroad.
Back to the research question

• Does proficiency affect the development of pragmatic routine production in L2 Chinese during study abroad?

Rating scores:
Overall improvement trajectory: NO
Magnitude of overall improvement: YES
Individual scenarios: Mixed findings

Linguistic analysis:
Patterns of change over time: Leaning towards NO
Limitations & future research

• Need to expand the range of learner linguistic proficiency.

• Need to examine the recognition of pragmatic routines.

• Need to account for the effects of changing linguistic proficiency on changing ability of pragmatic routine production.
Please cite this talk as:

Lecture series schedule

keep in touch: sli12@gsu.edu

• 第5讲、二语语用学数据收集方法及语用能力测试
  北京时间11月14日8:00– 10:00pm

• 第6讲、二语语用教学研究
  北京时间11月21日8:00– 10:00pm

• 第7讲、学习者个体差异因素与二语语用习得
  北京时间12月5日8:00– 10:00pm

• 第8讲、学习环境与二语语用习得
  北京时间12月12日8:00– 10:00pm