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### Invited lecture series on L2 pragmatics (2020): Lecture 7

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# Individual differences (ID) in L2 pragmatics research

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Shuai Li

October – December, 2020



# Outline

- Session 1:

- Survey a selection of individual difference (ID) factors (i.e., proficiency, aptitude, motivation, identity/agency) in L2 pragmatics.
- Discuss research on individual learner differences in L2 pragmatics.
- Main references:
  - Taguchi, N. & Roever, C. (2017). *Second language pragmatics* (Chapter 6. What differentiates learners). Oxford University Press.
  - Takahashi, S. (2019). Individual learner considerations. In N. Taguchi (Ed.), *The Routledge handbook of second language Acquisition and Pragmatics* (pp. 429-443). Routledge.

- Session 2:

- An empirical study on the role of foreign language aptitude factors in mediating pragmatics instruction in L2 Chinese.
  - Li, S. (2017). An exploratory study on the role of foreign language aptitudes in instructed pragmatics learning in L2 Chinese. *Chinese as a Second Language Research*, 6(1), 103–128.

# Individual difference (ID) research in SLA

- Two interpretations of the term “individual difference” (Taguchi & Roever, 2017).
  - “Individual difference” (ID) as theoretical constructs that are hypothesized to influence L2 learning processes and outcomes. ID factors are relatively fixed and categorical, e.g., proficiency, foreign language aptitude, motivation, personality, etc.
  - “Individual difference” as variations among learners in terms of learning processes, experiences, and outcomes, e.g., Learner X acquired Y because of Z experience.

# Individual difference (ID) research in L2 pragmatics

- Two lines of individual difference(s) research in (Taguchi & Roever, 2017; Takahashi, 2019).
- Strand #1. A variable-centered, quantitative approach.
  - Measure different ID factors through specific tests.
  - Quantitative research design to examine the descriptive and predictive relationship between specific ID factors and pragmatic competence.
  - ID factors examined in L2 pragmatics.
    - Aptitude, motivation, proficiency, intercultural competence, personality.

# Individual difference (ID) research in L2 pragmatics

- Strand #2. A holistic, qualitative approach.
  - Focus on individual learners, rather than on individual ID factors.
  - Consider ID factors as interacting with each other and with the context of learning, and they jointly shape L2 learning processes and learning outcomes.
  - Informed by the socially oriented research paradigm in general SLA research.

# Focal individual learner differences (factors)

Foreign language  
aptitude (Stand #1,  
to be discussed in  
Session 2)

Proficiency  
(Strand #1).

Motivation  
(Strand #1).

Identity & agency  
(Strand #1).

Individual learner  
differences  
(Strand #2).

# Proficiency



Proficiency is the most thoroughly researched ID factor in L2 pragmatics (esp. in cross-sectional studies). Research generally follows a variable-centered, quantitative approach (Strand #1) .



Yet, operationalizations of the proficiency construct vary considerably, making it difficult to compare findings across studies.

Standardized proficiency test (TOEFL, HSK).  
Placement test. / Close test. / OPI & SOPI.  
Course level, etc.



Operationalizations of proficiency generally favor the assessment of grammar, vocabulary (and phonology), and rarely address pragmatics, even though pragmatics is part of the theorization of communicative language competence (e.g., Bachman & Palmer, 2010).

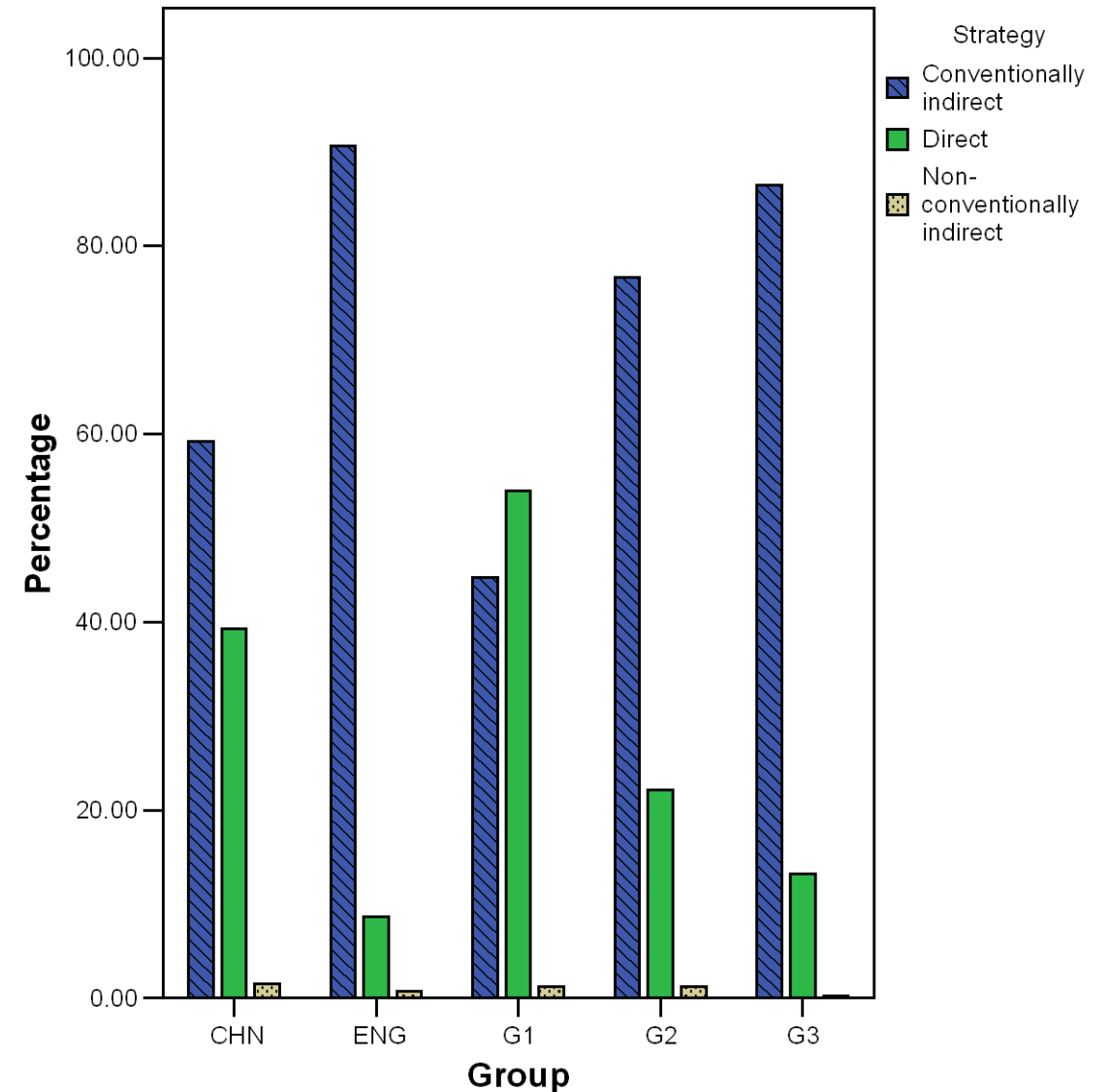


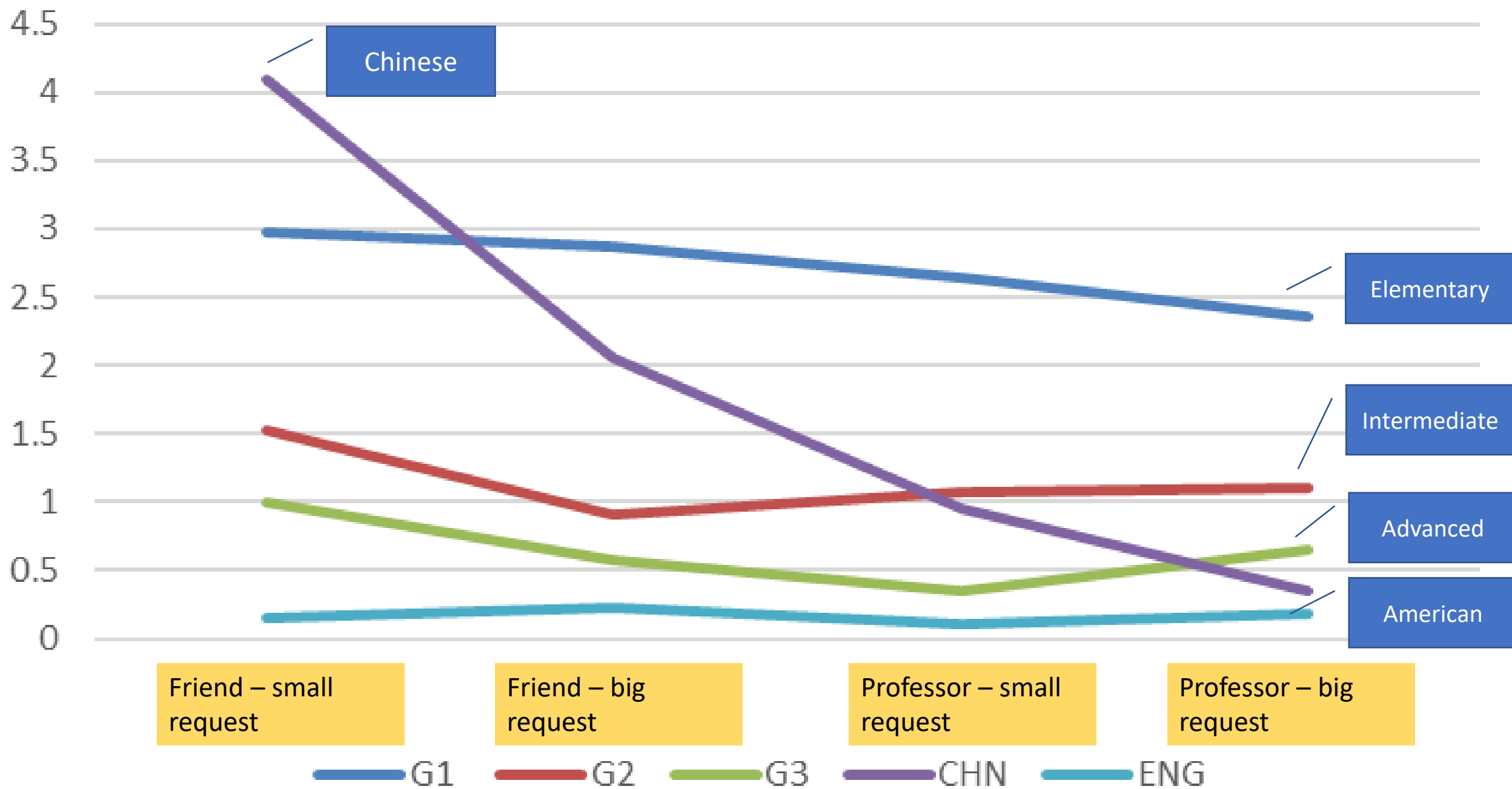
# Proficiency

- Speech act production: Generally, a strong (and positive) effect.
  - Speech act production requires exact processing of syntax, lexis (and phonology).
  - Appropriateness of performance: More proficient learners have larger repertoire of grammatical, lexical, and phonological knowledge → more pragmalinguistic forms available, e.g., “Can you...”, “could you...”, “would you mind...”, “I was wondering if...”.
  - Fluency of performance: More proficient learners have more efficient access to pragmalinguistic (and likely sociopragmatic) knowledge.
- Speech act perception (awareness): limited research findings suggest a rather weak effect of proficiency.
  - No need for exact morphosyntactic processing when it comes to perception.

# Proficiency

- Caveats: consider specific outcome measures of pragmatic performance.
- For example: distribution of strategies for realizing speech acts →
- Sociopragmatics: contextual sensitivity (next slide).





# Proficiency

- Implicature: strong effects of proficiency on:
  - Accuracy of comprehension: regardless of specific implicature type.
  - Speed of comprehension: regardless of specific implicature type.
- Why?
  - Implicature comprehension requires understanding implied meaning based on literal meaning in relation to context of communication. More proficient learners have better grammar and vocabulary knowledge to decode the literal meaning, e.g., “Is the Pope Catholic?”
  - More proficient learners are better at applying L1-based inferential skills due to higher level of fundamental skills (e.g., indirect refusals).

# Proficiency

- Pragmatic routine production: Mixed effects according to dimension of performance and characteristics of pragmalinguistic forms.
  - Bardovi-Harlig & Su (2018): CFL learners, proficiency had a strong effect on producing target pragmatic routines (i.e., the pragmalinguistic form).
  - Taguchi (2013): EFL learners, higher-proficiency learners outperformed lower-proficiency learners on speech rates, but not on planning time and appropriateness score.
- Pragmatic routine recognition: Mixed findings based on small number of studies.
  - Roever (2012): accurate recognition score increased from 36% to 50% among secondary EFL learners over 5 years of instruction.
  - Bardovi-Harlig & Bastos (2011): No effect of proficiency in terms of frequency of recognition.
  - Overall, a rather weak effect of proficiency.

# Proficiency

- Production of extended discourse:
  - A more recent line of inquiry.
  - Researchers rely on role play tasks for data collection.
  - Generally, a positive effect of proficiency.
  - More proficient learners are better at organizing oral discourses in collaboration with interlocutors than less proficient learners (examples on subsequent two slides).

- Su & Ren (2017): Request: Lower proficiency learner.

Delay of request head  
act within a single turn.

Example (2) Bread (Sue: learner, Level 2, female; I: NS interlocutor)

Grounder	01	Sue: <i>Xiaohua, wo xianzai wo zuoye</i>	[Xiaohua, I have a lot of
	02	<i>henduo, keshi ni zhi kan dianshi.</i>	assignments now, but you're
Head act	03	<i>Wo xiang wen ni yaoshi ni xiang</i>	only watching TV. I want to ask if
	04	<i>qu mai mianbao? =</i>	you want to buy some bread. =]
	05	I: <i>=En, shide, wo shi dasuan qu mai</i>	[=Um, yes. I planned to buy some
	06	<i>mianbao. Danshi, wo xiang ba</i>	bread. But I want to go after I
	07	<i>zhe ge dianshi kan wan zai qu.</i>	finish watching this TV show.]
	08	Sue: <i>Kan wan? (1.0). Hao. Zhe ge</i>	[Finish watching? (1.0). OK.
	09	<i>dianshi, ni kan wan wan yihou</i>	This TV show, you finish
	10	<i>qing ni qu.</i>	watching and then please go.]
	11	I: <i>Haode.</i>	[OK.]

- Su & Ren (2017): Request: higher proficiency learner.

Example (3) Bread (Jon: learner, Level 4, male; I: NS interlocutor)

Preparator	01	Jon: <i>Xiaohua, ni xianzai mang bu</i>	[Xiaohua, are you busy now?]
	02	<i>mang?</i>	
	03	I: <i>En, wo xianzai, mang daoshi bu</i>	[Um, I am not that busy, just
	04	<i>mang, jiu shi kankan dianshi a.</i>	watching TV.]
Grounder	05	Jon: <i>Wo zhe ge xingqi zuoye <u>hen</u> duo.</i>	[I have a lot of assignments this
Head act	06	<i>Ke bu keyi qu chaoshi bang wo mai</i>	week. Can you or can you not
	07	<i>mianbao?</i>	help me buy some bread?]
	08	I: <i>Keyi a. Keshi wo xiang xian kan</i>	[I sure can. But I want to finish
	09	<i>wan zhe ge dianshi jiemu, hen you</i>	watching this show. It's very

Delay of request head act  
across turns.



# Proficiency

- Ongoing issues:
  - The measures of proficiency should be clearly defined, avoid using vague terms such as elementary, intermediate, and advanced.
  - In practice, proficiency is often mingled with other confounding variables, e.g., length of instruction (or instructional level), length of stay in the target speech community. → consider research design and statistical procedures that can help tease apart these confounding effects (e.g., regression, introducing co-variate in ANOVA).
  - Proficiency as consisting of sub-skills (e.g., listening, speaking, reading and writing). Do different subskills have different effects on pragmatic development (consider different outcome measures, task modality).
    - Xiao, F., Taguchi, N., & Li, S. (2019). Effects of proficiency subskills on pragmatic development in L2 Chinese study abroad. *Studies in Second Language Acquisition*, 41(2), 469-483.



# Motivation

- Two different conceptualizations of the construct of motivation.
- (1) Motivation as a static (multifaceted) construct that determines learning behaviors and affects learning outcomes.
  - Gardner's (1985) socio-psychological model: integrative, instrumental.
  - Ryan & Deci's (1985) self-determination theory: intrinsic, extrinsic.

# Motivation

- (2) Motivation as a process-oriented, context-dependent construct that is subject to change and interacts with other individual difference characteristics (Dornyei, 2005, 2009); motivational processes.
  - Dornyei & Otto (1998): Stages of motivational process.
    - Pre-actional stage: generation of motivation for achieving specific goals.
    - Actional stage: how the generated motivation is maintained in achieving the goals.
    - Post-actional: retrospective evaluation of relevant experiences/processes.
  - Dornyei's (2005): L2 motivational self-system.
    - Ideal L2 self: what one desires to become as a L2 user.
    - Ought-to L2 self: attributes that are required to enable one to progress towards the ideal L2 self.
    - L2 learning experience: motivation in interaction with the contingent context.

# Motivation

- In L2 pragmatics research, motivation has often been cited as part of *post hoc* explanations of observed pragmatic performance.
  - Cook (2001): Some JFL learners were able to recognize Japanese speech styles; and these learners were found to have higher-level of motivation (e.g., to study/work in Japan).
- Only a very small number of empirical studies have examined motivation as an *a priori* independent variable, see next slide (Takahashi, 2005; Tajeddin & Moghadam, 2012).

# Motivation

- Under the variable-centered, quantitative approach (motivation as a static construct):
  - Takahashi (2005):
    - Japanese EFL learners with intrinsic motivation were more likely to notice the targeted pragmalinguistic forms for making requests under implicit instructional conditions.
  - Tajeddin & Moghadam (2012):
    - General pragmatic motivation: about cultural familiarity, appropriateness, and communication needs, e.g., “I need to learn cultural norms when I learn English.”
    - Speech-act-specific motivation: motivation for making requests, refusals, and apologies, e.g., “I like to learn how to be polite when I request.”
    - Speech-act-specific motivation significantly predicted learners’ performance on speech act production; no effect found for general motivation.

# Motivation

- Under the holistic, qualitative approach (motivation as a dynamic, situated construct).
  - No study has adopted this approach to investigating the role of motivation in mediating L2 pragmatics learning.
- How can the more recently proposed theoretical frameworks be applied?
  - Ideal L2 self, ought-to L2 self, L2 learning experience.
  - Pre-actional, actional, post-actional.
  - Case study of individual L2 learners during study abroad?

# Identity & agency

- Different views of identity:

- Individualistic and static view: One's self-concept that derives from one's knowledge of his/her membership of a social group(s) together with the emotional significance attached to that membership (Tajfel, 1974).
- Poststructuralist view: One's identity is fluid, multifaceted, alterable, and subject to negotiations and changes.
- "Identity is a site of struggle" (Norton, 1995)
  - E.g., Being a heritage speaker/learner of Chinese.

- Agency:

- Individuals' capacity to act and make their own choices (LoCastro, 2003).

# Identity & agency

- In L2 pragmatics, identity and agency are often related to the issues concerning norms of communication.
  - Learners are active agents, who constantly adapt and adjust their behaviors in consideration of their identities in context.
- Hence, learners may choose to adhere to, reject, or make changes to the targeted pragmatic norms.
  - Seigal (1996): Case study of 4 European women in Japan, reported rejections of honorifics and Japanese women's speaking style due to clash with their identifies of being independent western females upholding egalitarianism.
  - Brown (2013): Case study of 4 learners of Korean, reported difficulties in deciding whether to use Korean honorifics due to considerations of multiple identities, being a heritage learner of Korean, being a native of German, and being a learner of Korean.



# Identity & agency

- Clearly, L2 learners often go through conscious thinking processes for their choices of pragmatic norms.
- Issues for consideration:
  - How do we teach L2 pragmatics?
    - A variationist approach: ample exposure with information on consequences.
    - A focused and situated approach: address needs of specific student populations.

# Identity & agency


- Issues for consideration (continued):
  - How to evaluate pragmatic competence? Which set(s) of pragmatic norms should be used as the basis for evaluation?
  - What factors may (jointly) shape one's identity construction processes?
    - Proficiency? At what stage of learning do learners start to factor in identity considerations?
    - Age, gender, motivation, personality, etc.?
    - Context of learning?

# Individual learner differences

- The addition of a social perspective to SLA research (Firth & Wagner, 1997; Block, 2003).
  - In addition to the positivist, cognitively orientated, and quantitative research, scholars have also embraced the socially oriented and qualitative paradigm.
  - Under this paradigm, individual difference characteristics are viewed as dynamic, changing, and evolving in interaction with the contingent context (Dornyei, 2009).
  - In L2 pragmatics, researchers have just started to adopted the Dynamic System Theory (DST) to examine individual learner differences in terms of learning experiences, processes, and outcomes in relation to their contingent contexts.
    - Language development involves non-linear, emergent processes as a result of socially co-regulated interactions of various contingent factors in context.

## Context, Individual Differences and Pragmatic Competence

# Individual learner differences



- A representative study: Taguchi (2011, MLJ). (see also Taguchi 2012 for a book length project).
- A longitudinal study to describe and understand the general (group) and individual patterns involved in L2 pragmatic development.

# Individual learner differences

- Taguchi (2011) continued.
- Participants:
  - 48 Japanese EFL students in an English immersion university in Japan. (12 completed the case studies).
- Instruments & procedures:
  - Oral DCT given three times over one year at 3-month intervals.
  - DCT scenarios include high- and low-imposition situations (e.g., big request to professors for high-imposition scenario).
  - Speech acts analyzed for: Appropriateness rating (on a 5-point scale); fluency (speech rates

# Individual learner differences

- Taguchi (2011) continued.
- 2 Cases reported in the article: Shoko and Tomoyo.
  - Maximum variation sampling to select participants with different learning outcomes.
  - Two different patterns: abrupt development, and backsliding.
  - Data collected from observations, interviews, journal entries.
  - Shoko and Tomoyo were comparable in background: comparable initial proficiency, academic experiences, and living arrangements on campus. They were placed in the same class and had the same classroom instruction, assignments, and instructors. Neither of them had studied abroad.

# Individual learner differences

- Taguchi (2011) continued.
- Results of appropriateness score for high-imposition scenarios:
  - Abrupt development (Shoko) and backsliding (Tomoyo) at the individual level.
  - The high-imposition scenarios involve the use of the English bi-clausal structures such as “I was wonder if...”.
  - Individual variations were due to their specific experiences (i.e., type and intensity of language contact in the immersion environment).

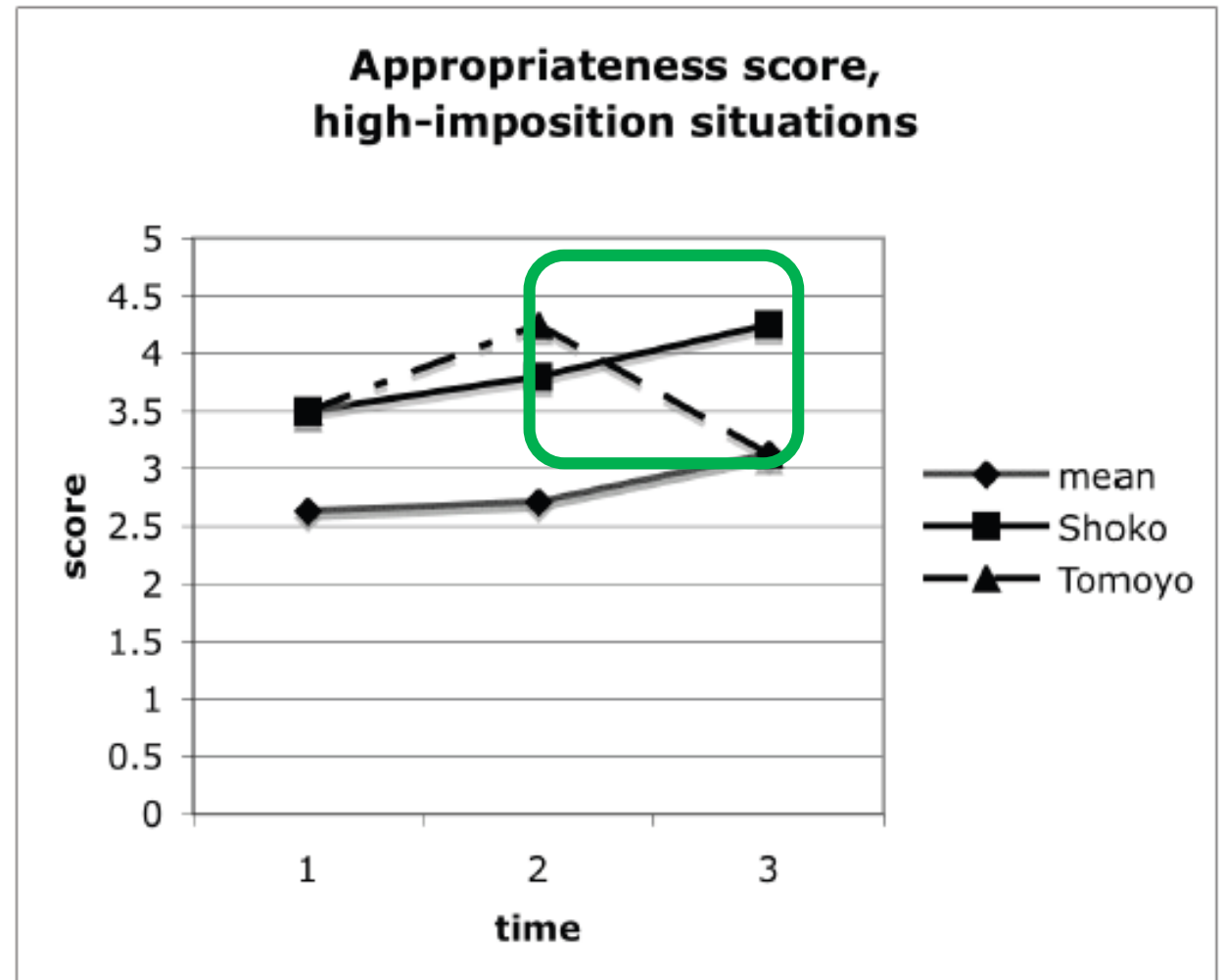


Figure 2. Changes in appropriateness scores, high-imposition speech acts.

# Individual learner differences

- Shoko:
  - Instrumental motivation: wanting to learn English in order to go study abroad.
  - Had very limited amount of contact with her native speaker instructor; generally met with her instructors only for advising in office.
  - Maintained regular but very limited interactions with 3 friends.
  - Had general interactions with international friends during semester 1, such interactions dropped significantly during semester 2 (switched to watching videos)
  - Instructors' impressions: good English, but reserved in class (e.g., Spoke 6 times of 22 class observations).
  - Showed good pragmatic awareness: "Could you..." vs. "Can you..."



# Individual learner differences

- Shoko's responses to a high-imposition scenario over time: emergence of the bi-clausal structure at Time 3.
- She was the only student out of the group of 48 who produced this bi-clausal structure at Time 3.

## EXCERPT 1

### Speech Act of Asking a Teacher for an Extension of a Paper

#### Time 1

Shoko: Excuse me, professor Lee, I caught a cold, so I couldn't get up, and I have written only two pages, so could you give me extra two days to finish the paper?

#### Time 2

Shoko: I'm very sorry, but I haven't finished your report, so can I, can you give me extra days to finish it?

#### Time 3

Shoko: Excuse me, professor Lee, I, I have, have a question about due date of the essay. I caught a cold and I wrote essay only two pages so far. I know the due is tomorrow, tomorrow, but I wonder if I, I, I could turn in two days later.

# Individual learner differences

- Shoko's production of this structure at Tim 3 was because of the explicit corrective feedback from her instructor (via email).

Shoko's Email to Tom (November, 2008)

Good afternoon. I'm Shoko. I want to see you on Tuesday, 25th to talk about my registration. Do you have time? I can meet you anytime except from 9:00 am to 10:15 am and after 4:30pm. Sorry to late the appointment.

EAP 3-H

Shoko Ikeda

# Individual learner differences

- Instructor's reply with corrective feedback.
- Shoko was never corrected before this critical incident.
- She had knew the bi-clausal structure as grammar knowledge, but was not aware of its pragmatic function.

Tom's Reply to Shoko

Shoko,

Well, I do have some time, but you have to learn how to be a bit more polite in your emails. You must use a more polite form with teachers than you do with your friends. For example, with a friend you say "I want/I need/Let's go" but with a teacher you write: I am wondering if I can set up an appointment with you next week sometime to discuss my winter term registration. Are you free at all next week? I look forward to hearing from you,

Sincerely,

Shoko

I know it sounds very formal, but you can't email to me the same way you would your friends. The email you sent sounded too demanding. Be careful. I can see you on Tuesday afternoon, okay?  
Tom

# Individual learner differences

- Tomoyo:
  - Produced the bi-clausal structure at Time 1 & 2, but did not produce it at Time 3.

## EXCERPT 4

Speech Act of Asking a Teacher for Permission to Take a Test at Another Time

Time 1

I'm so sorry, but Mr. Smith, but I'm going to have my cousin's wedding I need to prepare, I was wondering if you change the schedule test.

Time 2

Excuse me professor, I have a doctor appointment on the same time as you are gonna have a test and I really need to see a doctor. I know that the test is important, but I'm not feeling well these days, so I was wondering if you arrange the test for different time.

Time 3

Next week we are gonna have a test but I can't attend the class on that today because my cousin is gonna have a wedding. And I need to go out. So I wanna thinking for making up the test another day.

# Individual learner differences

- Tomoyo:
  - Instructors' impressions: very active participation (if not dominance) in class discussions; spoke 25 times for 22 observed classes.
  - Motivation: No clear instrumental motivation for learning English.
  - Personality: quite extraverted.
    - Had 10 close friends on campus, spent large amounts of time speaking English together (30 min to 5 hours, occasionally overnight).
    - Engaged in activities using English in interaction: volunteered to teach English at elementary schools; student assistant for international students.
  - Maintained very close contact with native speaker instructor, with daily visits to the teachers' office. "Strong teacher-student relationship... the trust become stronger". Instructors often ask her for feedback to their classes.

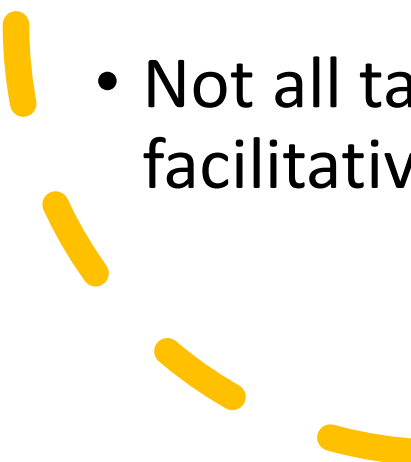
# Individual learner differences

- Tomoyo's response to the researcher's inquiry about her pragmatic backsliding. →
- Lack of opportunities to use the targeted pragmalinguistic form due to the strong (and special) teacher-student relationship that she constructed.
- "the type of experiences in context plays a decisive role in learners' pragmatic change, and it is powerful enough to obliterate what learners already had in their systems" (Taguchi, 2011, p. 621).

It never came across my mind this time. I'm surprised that I was using this kind of form before. I think it's because I studied this for the college entrance exam. This structure was in the textbook, and I memorized it, practiced it. There was a footnote saying that this is a formal expression... Maybe because I don't use it here. I talk casual with international students, so I forgot it? Before I came here, someone told me that some teachers are picky with language, like telling students to use "Dr." or "please." But in reality, the teachers I had are all casual. I don't think it's bad, but...say...I came here prepared, but now it's like, there is a hole in the bag and everything is falling off...I don't have anybody to use it...I don't have the situation to use it. (December, 2008; translation mine)



# Individual learner differences

- The study showed a complex interaction among pragmatic construct, learning context, time, and change.
    - The varied developmental trajectories were caused by different types of learning opportunities and resources afforded by the learning context, as well as by individual learners' subjectivity and stance to them.
  - Not all target language contacts and experiences are equally facilitative for all aspects of pragmatic development.
- 

# Individual learner differences

- Reflections:
  - Given the particularities involved in Tomoyo's relationship with her professors, is it fair to evaluate Tomoyo's pragmatic competence based on the pre-determined scoring rubric?
  - How do we use research findings like those reported in this study?



Let's take a  
short break



# Session 2: An empirical study



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- Li, S. (2017). An exploratory study on the role of foreign language aptitudes in instructed pragmatics learning in L2 Chinese. *Chinese as a Second Language Research*, 6(1), 103–128.

# Outline

Background

Method

Results & discussions

Implications & Limitations

# Background

- Foreign language (FL) aptitudes: a set of relatively stable cognitive abilities presumed to be linked to language learning.
- Two strands of research on FL aptitudes in SLA (S.F. Li., 2015):
  - (1) The extent to which FL aptitudes predict (or correlate with) the rate and/or achievement of L2 learning.
  - (2) Whether and how various FL aptitudes mediate the effects of different types of instructional conditions on L2 learning, i.e., aptitude-treatment interaction research.
- This study belongs to research stand #2 and aims to extend this line of research to L2 pragmatics instruction.

# Background

- Why aptitude-treatment interaction research?
  - Learners differ substantially in cognitive abilities (e.g., working memory, grammatical sensitivity, etc.).
  - Specific instructional conditions are likely to draw on specific cognitive abilities, thereby favoring certain learners over others according to their individual cognitive profiles.
    - E.g., the role of grammatical sensitivity during implicit grammar instruction.
- Ultimate goal is to inform the design of differentiated teaching/learning programs so that individual learners can maximize their learning outcome.

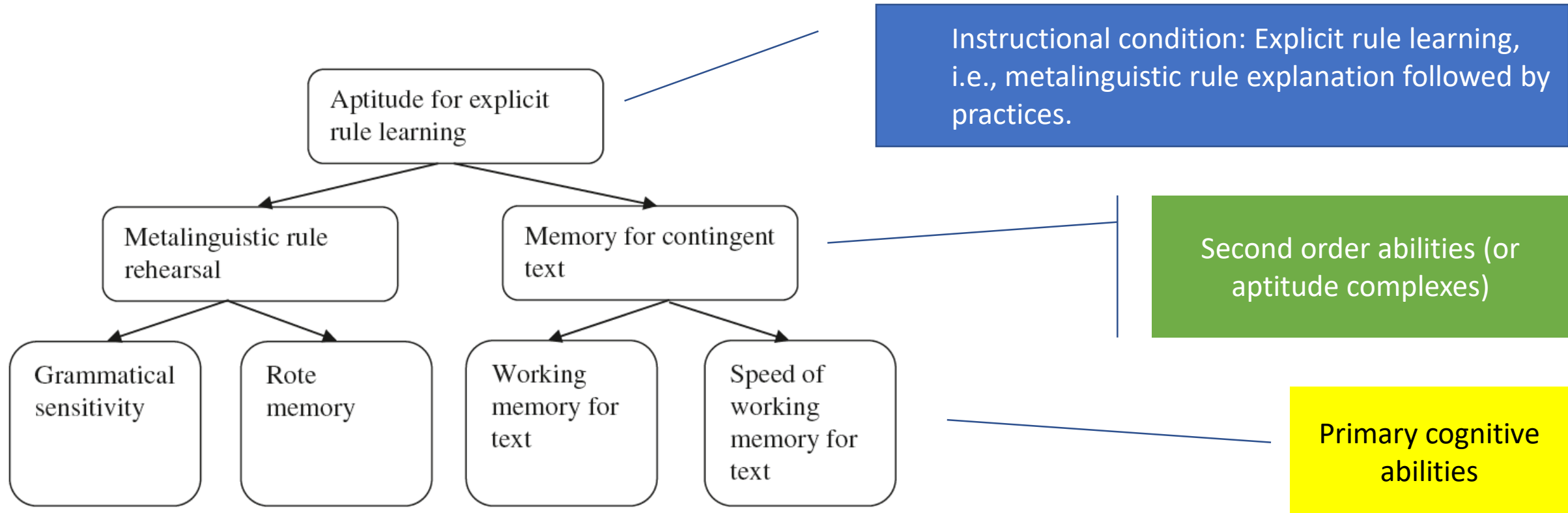
# Background

- Theorizations of FL aptitudes in SLA.
  - Skehan (2002): attempts to connect various FL aptitudes (e.g., attentional control ability, working memory) with different SLA processes (e.g., noticing, pattern identification).
  - Robinson (2001, 2007): presents a framework for investigating how various FL aptitudes interact with specific instructional conditions (e.g., focus on form, explicit rule learning) to affect learning outcome.
  - This study adopts Robinson's framework due to its instructional nature.

# Background

- Robinson's Aptitude Complex Hypothesis (2001, 2007): different combinations of cognitive abilities are utilized in L2 learning under different instructional conditions.
  - Lists 4 different learning conditions (e.g., explicit rule learning, focus on form).
  - For each learning conditions, identifies the cognitive abilities entailed in learning under this condition.
    - A hierarchical structure primary and second-order cognitive abilities.
    - Primary cognitive abilities: specific cognitive abilities (e.g., working memory, grammatical sensitivity, rote memory).
    - Second-order abilities (aptitude complexes): specific combinations of primary cognitive abilities, e.g., "metalinguistic rule rehearsal" consists of grammatical sensitivity and rote memory.

## Robinson's hierarchical aptitude structure for explicit rule learning.



**Figure 1:** Hierarchical structure of aptitude profile for explicit rule learning (Adapted from Robinson 2012:69).



# Background

- Extending Robinson's theoretical framework to instructed L2 pragmatics research.
  - Aptitude-treatment interaction research in instructed SLA has focused almost exclusively on L2 morpho-syntax, no study has examined the mediating effects of aptitudes on instructed L2 pragmatics learning.
  - Generally, explicit instruction is more effective than implicit instruction for L2 pragmatics learning (Plonsky & Zhuang, 2019), so it is reasonable to start with explicit instructional conditions.
  - Different operationalizations of explicit instruction: deductive vs. inductive; modality of instruction (e.g., input-based vs. output based).
  - Different dimensions of performance for assessing instructional effects: accuracy vs. speed.
  - Hence, a three-way interaction: aptitude-instruction-dimensions of performance.

# Background

- This study:
  - Focused on pragmalinguistic forms for request-making in Chinese.
  - Focused on explicit metapragmatic instruction, followed by different modalities of practice (input-based, output-based) – Robinson's explicit rule learning (ERL) condition.
  - ERL aptitude factors: working memory, working memory speed (not included), rote memory capacity, and grammatical sensitivity.
  - Different dimensions of pragmatic performance: accuracy vs. speed.

# Research question

- Are FL aptitudes related to the gains in judging and producing Chinese request-making forms under different instructional modalities (input-based, output-based)?



# Method

- The same as the study that I introduced in Lecture #6 (i.e., Li & Taguchi, 2014), but added aptitude measures.
- A quick recap of methodological features in the next few slides.

# Method

- Participants.
  - 50 American learners of Chinese (intermediate level proficiency), Randomly assigned to three groups.
    - Input-based training group ( $n=17$ ).
    - Output-based training group ( $n=17$ ).
    - Control group ( $n=15$ ) (originally 16).
  - Chinese language proficiency determined by 20 items of the grammar section and 20 items of the listening section of a standardized Chinese test (i.e., The C-Test).
    - Kruskal-Wallis tests on Chinese proficiency: No significant difference across the 3 groups:  $\chi^2(2, N = 50) = 1.22, p > .05$ .

Form	Function	Context
1. ( <u>帮忙/帮我</u> ) + Verb + <u>一下</u> + ( <u>Object</u> ) + <u>吧</u> ( <u>bang<sup>1</sup>mang<sup>2</sup> / bang<sup>1</sup>wo<sup>3</sup></u> ) + verb + <u>yi<sup>2</sup>xia<sup>4</sup></u> + ( <u>Object</u> ) + <u>ba</u>	Direct request with mitigated tone	Making small requests to good friends
2. ( <u>帮我/帮忙</u> ) + <u>把</u> + <u>Object</u> + Verb + <u>一下</u> <u>吧</u> ( <u>bang<sup>1</sup>mang<sup>2</sup> / bang<sup>1</sup>wo<sup>3</sup></u> ) + <u>ba<sup>3</sup></u> + <u>Object</u> + Verb + <u>yi<sup>2</sup>xia<sup>4</sup>ba</u>		

**Both are imperative sentences in Chinese.**

3. <u>您看</u> + ( <u>Subject</u> ) + <u>能</u> + Verb + <u>一下</u> + <u>Object</u> + <u>吗?</u> <u>nin<sup>2</sup>kan<sup>4</sup></u> + ( <u>Subject</u> ) + <u>Neng<sup>2</sup></u> + Verb + <u>yi<sup>2</sup>xia<sup>4</sup></u> + <u>Object</u> + <u>ma?</u>	Indirect request with mitigated tone	Making big requests to a professor that one knows well
4. <u>您看</u> + ( <u>Subject</u> ) + <u>能不能</u> + Verb + <u>一下</u> + <u>Object?</u>  <u>nin<sup>2</sup>kan<sup>4</sup></u> + ( <u>Subject</u> ) + <u>neng<sup>2</sup>bu<sup>4</sup>neng<sup>2</sup></u> + Verb + <u>yi<sup>2</sup>xia<sup>4</sup></u> + <u>Object?</u>		

**Both are interrogative sentences in Chinese.**

## Method

Target pragmatic features.

# Method

- Computerized instruction & practice.
  - **All groups:** metapragmatic instruction.
  - **Control group:** Chinese reading comprehension exercise.
  - **Input group:** input-based practice: grammatical judgment activities, dialogue reading activities, 4 practice sessions in total.

- Sample dialogue reading practice: input-based.

李晓晨: chénlǎoshī jiàn dào nín tài hǎo le  
陈老师，见到您太好了！

陈教授: xiǎochén hái méiyǒu huí jiā ya  
晓晨，还没有回家呀？

李晓晨: méiyǒu ne chénlǎoshī bùhǎo yìsi wǒ xiǎng qǐng nín bāng yī gè máng  
没有呢。陈老师，不好意思，我想请您帮一个忙。

陈教授: zěn me le  
怎么了？

李晓晨: wǒ míngtiān zǎoshang děi jiāo lùnwén kěshì wǒ de diànnǎo huài le jīfáng yě guān mén le  
我明天早上得交论文，可是我的电脑坏了。机房也关门了。

wǒ yòng yíxià nín de diànnǎo ba nínkàn wǒ néng bù néng yòng yíxià nín de diànnǎo  
(a) 我用一下您的电脑吧。(b) 您看我能不能用一下您的电脑？

nínkàn wǒ néng bù néng yòng yíxià nín de diànnǎo ma  
(c) 您看我能不能用一下您的电脑吗？

陈教授: yào yòng duōcháng shíjiān  
要多长时间？

李晓晨: bàn gè xiǎoshí ba nínkàn wǒ néng yòng yíxià nín de diànnǎo ma bǎ nín de diànnǎo gěi wǒ yòng yíxià ba  
半个小时吧。(a) 您看我能用一下您的电脑吗？(b) 把您的电脑给我用一下吧。

nínkàn wǒ néng nín de diànnǎo yòng yíxià ma  
(c) 您看我能不能您的电脑用一下吗？

陈教授: méi wèntí  
没问题。



# Method

- **Computerized instruction & practice.**
  - **All groups:** metapragmatic instruction.
  - **Control group:** Chinese reading comprehension exercise.
  - **Input group:** input-based practice: grammatical judgment activities, dialogue reading activities, 4 practice sessions in total.
  - **Output group:** output-based practice: sentence translation activities, dialogue completion activities, 4 practice sessions in total.

# Computerized output-based practice

李晓晨: chénlǎoshī jiàn dào nín tài hǎo le  
陈老师，见到您太好了！

陈教授: xiǎochén hái méiyǒu huí jiā ya  
晓晨，还没有回家呀？

李晓晨: méiyǒu ne. chénlǎoshī bùhǎo yìsi, wǒ xiǎng qǐng nín bāng yī ge máng.  
没有呢。陈老师，不好意思，我想请您帮一个忙。

陈教授: zěn me le  
怎么了？

李晓晨: wǒ míngtiān zǎoshang děi jiāo lùnwén, kěshì wǒ de diànnǎo huài le. jīfáng yě guān mén le.  
我明天早上得交论文，可是我的电脑坏了。机房也关门了。

陈教授: yào yòng duōcháng shíjiān  
要多长时间？

李晓晨: bàn ge xiǎoshí ba.  
半个小时吧。

陈教授: méi wèntí.  
没问题。

# Method

- Computerized outcome measures.
  - **Pragmatic listening judgment task (LJT).**

Heard request situation (in English), then a Chinese request utterance.  
Judged pragmatic appropriateness & grammatical accuracy via multiple choice questions.  
Choices and response times recorded.  
24 target items (situations), 3 comparable versions.
  - **Oral discourse completion task (ODCT).**

Heard request situation (in English).  
Responded orally what they would say in the situation.  
Oral productions recorded.  
16 target items (situations), 3 comparable versions.

# Method

Measure	Operationalizations
1. <b><u>LJT accuracy</u></b>	Correct judgment of heard request utterances (Range: 0 - 24)
2. LJT response times	Averaged number of seconds taken to answer items correctly
3. <b><u>ODCT accuracy</u></b>	Scores based on a scoring rubric (Range: 0 - 80).
4. ODCT planning times	Averaged number of seconds taken to prepare for responses.
5. ODCT speech rates	Averaged number of Chinese syllables spoken per minute when producing pragmatically appropriate request utterances, excluding false starts, repetitions, partial repetitions, and repairs.



# Method

- Language aptitude measures.
  - Rote memory capacity.
  - Grammatical sensitivity.
  - Working memory.
  - Speed of working memory (exclude due to lack of valid test).

# Method

- **Grammatical sensitivity test.**

MLAT (Modern Language Aptitude Test) words in sentence section (Carroll & Sapon, 1959); 45 items.

*Key sentence: London is the capital of English*

*Second sentence: He liked to go fishing in Maine.*

*A B C D E*

# Method

- **Rote memory test.**

- Rote memory: the ability to learn and retain sound-meaning associations.
- MLAT word pairs section (Carroll & Sapon, 1959), 24 items.
- Studied Kurdish-English word pairs (2 mins). See an example with Maya words →
- Self-practice (2 mins).
- Tested on retention through multiple choice questions (4 mins). See an example on far right →

## Vocabulary

<u>Maya</u>	--	<u>English</u>
c?on		gun
si?		wood
k?ab		hand
kab		juice
bat		ax
pal		son

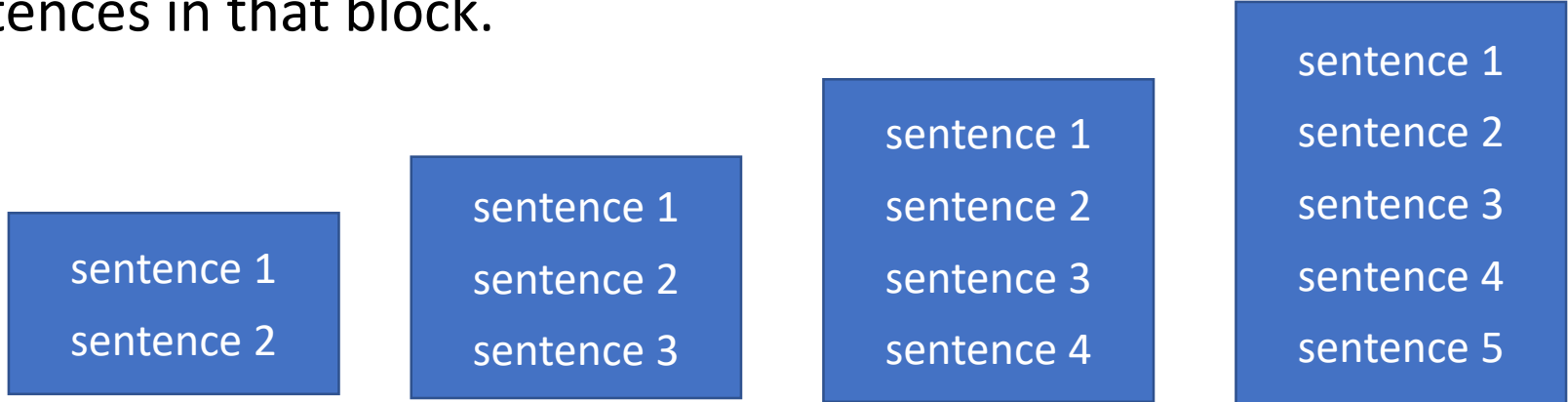
1. bat
  - A. animal
  - B. stick
  - C. jump
  - D. ax
  - E. stone

2. kab
  - A. juice
  - B. cart
  - C. corn
  - D. tool
  - E. run

# Method

- **Working memory test.**

- Reading span test adapted from Daneman & Carpenter (1980).
- 84 English sentences, 50% grammatical, 50% ungrammatical.
- Each sentence had 10 to 16 words, ending with a two-syllable word.
- Created blocks of 2, 3, 4, or 5 sentences.
- For each block, participants read aloud each sentence and made immediate judgment of grammaticality; after finishing an entire block, they recalled the last words of all sentences in that block.
- Test reliability .83.



sentence 1  
sentence 2

sentence 1  
sentence 2  
sentence 3

sentence 1  
sentence 2  
sentence 3  
sentence 4

sentence 1  
sentence 2  
sentence 3  
sentence 4  
sentence 5



# Method

- Procedures.
  - **Week 1, Day 1:** Metapragmatic instruction, then Pretest (LJT, ODCT).
  - **Week 1, Day 2-5:** Practice sessions for input, output, and control groups.
  - **Week 1, Day 5:** Immediate posttest (LJT, ODCT).
  - **Week 4:** Delayed posttest (LJT, ODCT), aptitude tests (working memory test, rote memory capacity test, grammatical sensitivity test).

# Data analysis

- Calculated two sets of pragmatic gains for each of the five outcome measures (LJT accuracy, LJT response times, ODCT accuracy, ODCT planning times, ODCT speech rates).
  - Immediate gain: the difference between pretest and immediate posttest.
  - Delayed gain: the difference between pretest and delayed posttest.
- Performed correlations between pragmatic gains and language aptitude measures.

# Results

**Table 2:** Descriptive statistics of three aptitude measures.

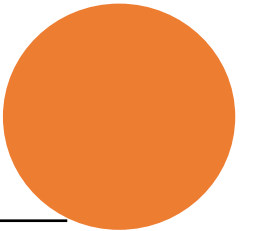
	Input ( <i>n</i> = 17)		Output ( <i>n</i> = 17)		<i>t</i> test results
	Mean	<i>SD</i>	Mean	<i>SD</i>	
Grammatical sensitivity (score range: 0–45)	25.06	6.28	23.76	6.65	$t(32) = 0.58, p = 0.56$
Rote memory (score range: 0–24)	21.41	4.08	19.71	5.92	$t(32) = 0.98, p = 0.33$
Working memory	15.32	2.84	16.60	1.99	$t(32) = -1.52, p = 0.14$

# Results

- Input group.

Outcome measure	Gain	Grammatical sensitivity	Rote memory	Working memory
LJT accuracy	Immediate	-.03	.14	.27
	Delayed	.19	.27	.26
LJT response times	Immediate	.16	.35	<b>.52 *</b>
	Delayed	.28	.31	<b>.53 *</b>
ODCT accuracy	Immediate	-.19	-.17	.01
	Delayed	.04	.17	.03
ODCT planning times	Immediate	-.02	.13	-.14
	Delayed	.05	.16	-.13
ODCT speech rates	Immediate	-.22	.01	-.04
	Delayed	.03	.04	.15

**\*  $p < .05$**



# Results

- Output group.

Outcome measure	Gain	Grammatical sensitivity	Rote memory	Working memory
LJT accuracy	Immediate	-.41	-.22	-.13
	Delayed	-.39	-.03	.11
LJT response times	Immediate	.13	.33	.02
	Delayed	.12	.18	.11
ODCT accuracy	Immediate	-.23	-.30	-.35
	Delayed	.12	-.35	-.31
ODCT planning times	Immediate	-.42	<b>-.49 *</b>	-.20
	Delayed	-.39	-.42	-.29
ODCT speech rates	Immediate	<b>.57 *</b>	.38	.38
	Delayed	.42	.22	.07

\*  $p < .05$

# Summary & discussion

- All significant correlations were between gains in pragmatic performance speed and FL aptitudes; gains in performance accuracy were not significantly correlated with any FL aptitude factors.
  - Li and Taguchi (2014) reported that both instructional conditions were highly effective in enhancing pragmatic performance accuracy (i.e., LJT accuracy, ODCT accuracy), such strong instructional effects likely wiped out any mediating effects of individual differences in aptitudes.
  - Li and Taguchi (2014) reported that the instructional effects on enhancing pragmatic performance speed, hence the mediating effects of aptitude factors were more prominent.
  - Such “homogenizing” effect of explicit, deductive instruction was also reported in other aptitude-treatment interaction studies focusing on L2 morpho-syntax (e.g. Erlam, 2005).

# Summary & discussion

- Role of working memory (WM).
  - **Input group:** WM positively correlated with reductions in judgment response times, meaning that learners with larger WM capacity benefited more from input-based instruction for speedy judgment of request forms.
  - **Output group:** no significant correlation between reductions of judgment response times and WM.
- Why?
  - Input-based instructional condition offered opportunities for learners to practice using WM for judging request utterances → such practices led to faster judgment performance, esp. for learners with larger WM capacity.
  - Output-based instructional condition did not such opportunities → no effect of working memory.
  - The function of WM is for temporary storage and manipulation of information (Baddeley, 2003) → a good fit for the cognitive resources needed for completing the LJT.

# Summary & discussion

- Role of grammatical sensitivity (GS).
  - **Output group:** GS correlated significantly with immediate gains in speech rates of production; meaning learners with better language analytic ability benefited more from output-based instruction for developing the ability to quickly produce request utterances.
  - **Input group:** No correlation found as in the output group.
  - Why?
    - This study taught pragmalinguistic forms; learners with better GS should be better at detecting the grammatical function of the taught pragmalinguistic forms and putting together request utterances based on the targeted pragmalinguistic forms.
    - The output-based instructional condition offered opportunities to allow learners to repeatedly draw on their GS to produce request utterances → faster speech rates in production.
    - The input-based instructional condition did not offer such opportunities → no mediating effect of GS.



# Summary & discussion

- Role of rote memory (RM).
  - Output group: RM negatively correlated with reductions in production planning times → larger RM learners made less reduction of planning times after output-based activities than smaller RM learners.
  - A possible ceiling effect for the larger RM learners left limited room for improvement during output-based instruction.

**Table 6:** Relationship between rote memory and production planning times.

Rote memory (RM)	Pretest planning times		Immediate posttest planning times		Reduction in planning times	
	Below average	Above average	Below average	Above average	Below average	Above average
Smaller RM learners ( $n = 6$ )	2	4	3	3	1	5
Larger RM learners ( $n = 11$ )	10	1	9	2	10	1

Note: The numbers indicate the number of learner(s) that falls in each category.



# Conclusions

- Input and output groups demonstrated different correlation patterns between aptitude factors and learning outcomes, suggesting that different cognitive abilities mediated the effects of different instructional conditions.
- Hence, there are aptitude-treatment interaction effects in instructed L2 pragmatics learning, which offers initial support to Robinson's hypothesis in the context of instructed L2 pragmatics acquisition.

# Pedagogical implications

- Consider the goal of pragmatics instruction.
  - If focus on performance accuracy, FL aptitude are unlikely to play a role in mediating instructional effects (under explicit instructional conditions).
  - If focus on performance speed (i.e., fluency), instructors need to consider the mediating effects of different FL aptitude factors according to instructional modality and outcome measure tasks.



# Limitations

- Only focused on explicit instruction, need to explore the role of FL aptitudes in other instructional conditions, e.g., various implicit instructional conditions.
- Small sample size → generalizability issue.
- Unable to fully test Robinson's hypothesis due to lack of test for speed of working memory.
- FL aptitudes specifically for pragmatics learning? Refer to the framework by Robinson (2005).

# Robinson (2005)

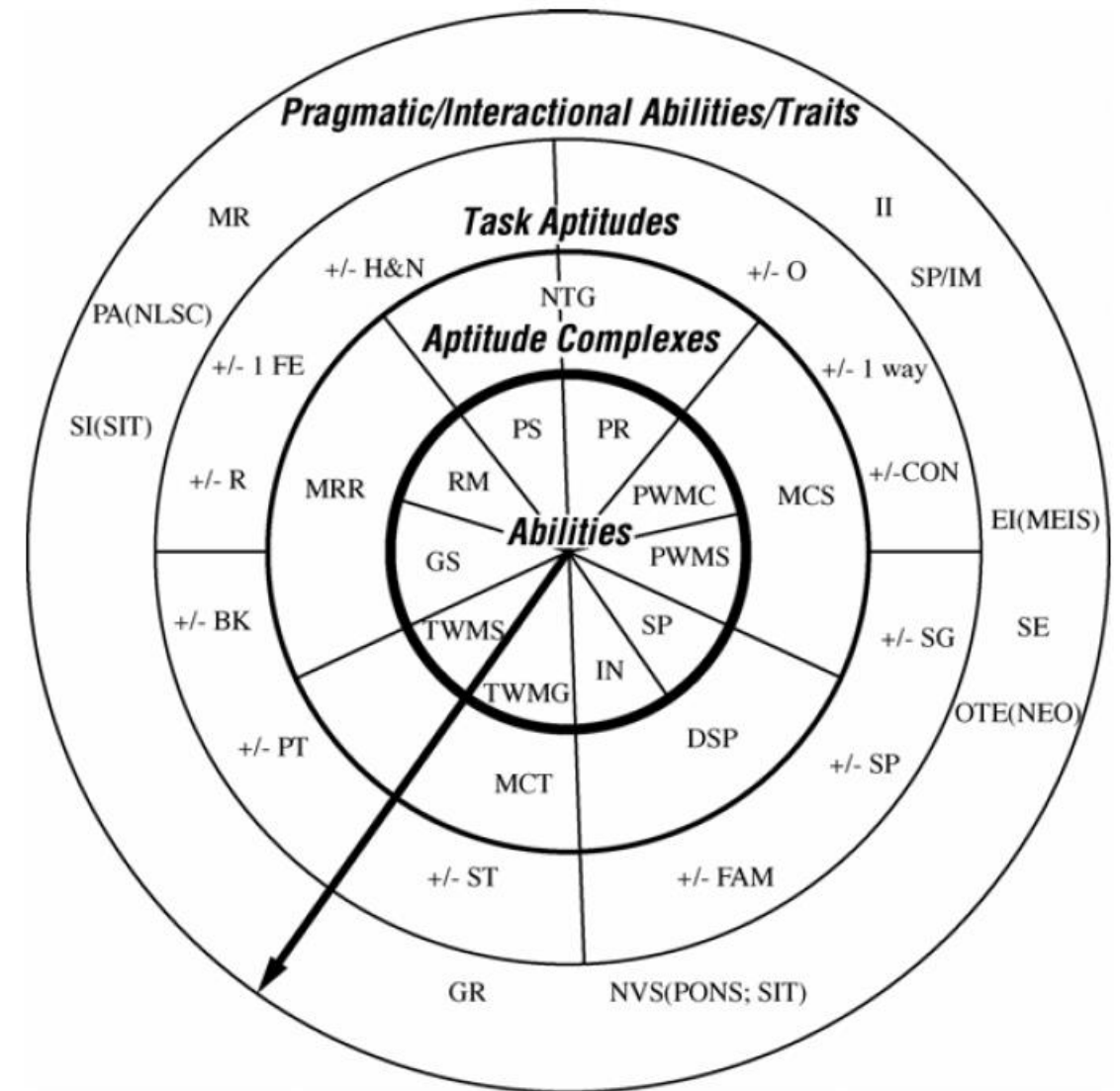
## Key to Figure 1:

**Abilities** (inner circle): PS = Processing Speed; PR = Pattern recognition; PWMC = Phonological Working Memory Capacity; PWMS = Phonological Working Memory Speed; SP = Semantic Priming; IN = Lexical Inferencing; TWMC = Text Working Memory Capacity; TWMS = Text Working Memory Speed; GS = Grammatical Sensitivity; RM = Rote Memory

**Aptitude Complexes** (second circle): NTG = Noticing the Gap; MCS = Memory for Contingent Speech; DSP = Deep Semantic Processing; MCT = Memory for Contingent Text; MRR = Metalinguistic Rule Rehearsal

**Task Aptitudes** (third circle): +/- ST = Single Task; +/- PT = Planning Time; +/- BK = Background Knowledge; +/- H&N = Here-and-Now; +/- FE = Few Elements; +/- R = Reasoning; +/- O = Open Task; +/- 1way = 1-Way Task; +/- CON = Convergent Task; +/- SG = Same Gender Participants; +/- SP = Same Proficiency Participants; +/- FAM = Familiar Participants

**Pragmatic/Interactional Abilities/Traits** (fourth circle): II = Interactional Intelligence (Levinson, 1995); SP/IM = Self Presentation/Impression Management (Goffman, 1967); MR = Mind Reading (Baron-Cohen, 1995); PA (NLSC) = Pragmatic Ability (Nonliteral speech comprehension; Langdon et al., 2002); SI (SIT) = Social Insight (Social Insight Test; Chapin, 1967); EI (MEIS) = Emotional Intelligence (Multifactor Emotional Intelligence Scale; Mayer et al., 2000); SE = Self-Efficacy (Bandura, 1986); OTE (NEO) = Openness to Experience (Neuroticism, Extroversion, Openness Personality Inventory; Costa & MacRae, 1985); GR = Gesture Reading (Goldin-Meadow et al., 1993); NVS (PONS; SIT) = Nonverbal Sensitivity (Profile of Nonverbal Sensitivity Test; Social Interpretation Test; Rosenthal et al., 1979; Archer, 1983)



**Figure 1:** Aptitudes, development, and learning contexts: Changes in the relative contribution of aptitude factors to different aspects of L2 learning. (Inner two circles: initial input-based learning; third circle: output practice and complex task performance; and outer circle: transfer of task performance to real-world interactive settings.)

- Thanks, and keep in touch: [sli12@gsu.edu](mailto:sli12@gsu.edu)

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