MSU Working Papers in Second Language Studies Volume 7, Number 1

2015

The Editorial Team is pleased to introduce the 7th volume of the MSU Working Papers in Second Language Studies. The Working Papers is an open-access, peer-reviewed outlet for disseminating knowledge in the field of second language (L2) research. The Working Papers additionally has a two-layered formative aim. First, we welcome research that is “rough around the edges” and provide constructive feedback in the peer review process to aid researchers in clearly and appropriately reporting their research efforts. Similarly, for scholars working through ideas in literature reviews or research proposals, the peer review process facilitates critical yet constructive exchanges leading to more refined and focused presentation of ideas. Second, we extend an opportunity to in-training or early-career scholars to lend their expertise and serve as reviewers, thereby gaining practical experience on the “other side” of academic publishing and rendering service to the field. Of course, we also value the interviews with prominent L2 researchers and book/textbook reviews we receive, which provide a useful resource for L2 scholars and teachers. We must acknowledge (and in fact are quite glad to) that without the hard work of authors and reviewers, the Working Papers would not be possible.

This volume of the Working Papers features two empirical research articles, a research proposal, a literature review, and two reviews. Before introducing these articles in detail, however, we wish to reflect on the history of the Working Papers by answering a simple question: What happens once an article is published in the Working Papers?

Life after Publication

As an open-access journal, the Working Papers lives on the internet, freely accessible by just about anyone. Importantly, it is also indexed by Google Scholar. Searching for “MSU Working Papers in Second Language Studies” (using the published in field of the advanced search) yielded 43 entries at the time of this writing, covering the previous six volumes. While the Working Papers would not pretend to attract the kind of attention afforded to flagship L2 journals, we are happy to report that work published in our journal does reach other scholars, occasionally leading to citations in their work. Table 1 highlights our most-cited articles.

Some of the citations lead to informal academic venues, such as teacher or scholar blogs. For example, Ahn’s (2014) literature review was featured in a Polish academic blog. Our articles are also utilized more formally by scholars-in-training: Ballard (2013), along with several other Working Papers articles, has been cited in capstone/thesis projects. Some of the Working Papers articles have connections to rather substantial work. For example, Shea (2010) has been cited by work featured in the International Journal of Learner Corpus Research (Granger, 2015). Impressively, White (2010) has been cited in articles appearing in Applied Linguistics (Amuzie & Spinner, 2013) and Second Language Research (Chrabaszcz & Jiang, 2014), both of which are highly-regarded L2 journals.
Table 1

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<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
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<tbody>
<tr>
<td>Shea</td>
<td>2009</td>
<td>A Corpus-Based Study of Adverbial Connectors in Learner Text</td>
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<tr>
<td>White</td>
<td>2009</td>
<td>Accounting for L2-English Learners’ Article Choices</td>
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<td>Ballard</td>
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<td>Ahn</td>
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<td>Attention, Awareness, and Noticing in SLA: A Methodological Review</td>
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While an article in the Working Papers may not make waves in the field, it is likely to be read and appreciated by other L2 scholars, and it might even make its way into the reference list of a top-tier journal article. This sort of transmission and connection is what makes the Working Papers worth doing and continuing. On that note, we now look to current volume.

The Current Volume

This volume of the Working Papers begins with a research paper by Jessica Fox, a doctoral candidate in the MSU Second Language Studies program. Fox’s article, “Common Topic, Similar Hope: Positioning of Chinese International Students Abroad,” presents a fascinating case study of a Chinese student’s academic journey in the United States. Next is a research article by Yeon Heo, who recently earned a PhD from the Second Language Studies program. Heo’s research, titled “The Effects of Form-Focused Instruction on Implicit and Explicit Grammar Knowledge and Comprehension,” explores the effectiveness of three techniques for teaching grammar to L2 learners, addressing a major concern for language teachers and second language acquisition researchers alike.

Our next contribution comes from two students in the MSU Second Language Studies doctoral program: Susie Kim and Hyung-Jo Yoon. Their research proposal, "Stop Using that: Expressing Definiteness in Korean," provides motivation and a method to study L1 English L2 Korean learners' interpretation and production of overt and covert definiteness in the target language. Next, Dan Isbell, a second-year student in the Second Language Studies program, provides a review of the literature that has been published on "The Perception-Production Link in L2 Phonology." He reviews and critiques empirical research designs and interpretations and presents directions for future research.

We conclude this issue with two book reviews. First, Ina Choi, a doctoral candidate in the MSU second language studies program, reviews Language and Learning in Multilingual Classrooms: A Practical Approach. The book provides practical guidelines to teachers, educationists, and administrators who are directly and indirectly involved with language teaching in multilingual and multicultural classrooms. Second, Laura Eikhoff, an MSU MA TESOL graduate, reviews the textbook Real Reading 1, which focuses on developing intensive reading skills and vocabulary in adult English language classrooms.
We hope you enjoy reading these articles as much as we enjoyed seeing them evolve over the last several months. And if we may close with a promotion, stay tuned for the next MSU Working Papers in Second Language Studies call for papers- we want to see your work in our next volume.

The Editorial Team

Daniel R. Isbell, Research Articles Editor
Hima Rawal, Interviews and Reviews Editor
Magda Tigchelaar, Research Proposals and Literature Reviews Editor

References


Common Topic, Similar Hope: Positioning of Chinese International Students Abroad

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Abstract

As the number of Chinese international students at higher education institutions continues to grow, relevant research on this topic is increasingly vital. A number of studies expose academic and social challenges impeding this population’s adjustment to university landscapes in Canada and the United Kingdom, yet few shed light on positive strategies used to successfully navigate students’ sojourns abroad, particularly in the United States. This case study provides an in-depth, detailed account of a Chinese international student’s first year at a large American university. Data collected from regular interviews, classroom observations, and instructor insights are analyzed through the lens of the Positioning theory to explore how a student strategically positions himself on the path toward realizing his goals and imagined community. Implications of this study advocate for a multifaceted, reflective approach to study abroad by students, faculty, and administrators.

Keywords: Case study, ESL, international students, higher education, Positioning

The number of international students studying at English-speaking Western universities increases each year. At the university in this present study, for instance, the Chinese international student population has more than doubled in the past five years (Office for International Students and Scholars, 2014). Because of this large influx of students and the unified need for international students to be adequately prepared for academic and non-academic aspects of life from multiple university constituents (i.e., faculty members, student life administrators, residence program staff), it is critical to investigate the transition into new academic and social terrains for this growing population. The focus of the current study is how one first-year Chinese international student navigates his new environment and how his story may inform the growing population of not only Chinese international students but also international students in general.

Social and Academic Challenges

A commonplace assumption of study abroad participants may be seamless integration and immersion into the language and culture of the target community; unfortunately, this is not always the case. It is too simple to assign culture, language, social norms, or personality as the source of the discrepancy between study abroad dreams and realities; regardless of the combination of factors for each individual, most previous research categorizes ensuing challenges into areas of social and academic challenges.

On the academic front, a study by Liu (2013) suggested that Chinese international students at universities in the United States had “tremendous difficulties in using English” (p. 138). Other researchers corroborate this claim: Chinese international students are unprepared for writing courses (Jin & Cortazzi, 2006; Liou, 2014), have difficulties comprehending academic lectures (Miller, 2014), and have
inadequate oral skills in English (Gu & Schweisfurth, 2006; Ranta & Meckelborg, 2013). Lower language proficiency may be part of other academic challenges identified in the literature: academic culture shock (Liu, 2013), foreign language anxiety (Liu & Jackson, 2008), low willingness to communicate (Lu & Hsu, 2008), and difficulties with Western-style collaboration (Luxin, 2010). In sum, we cannot conclude that inadequate language proficiency skills plague all international students’ academic adjustment; however, this is an area of concern for universities.

In the social realm, Chacon (1999) found that many international students reported having not even one meaningful relationship with a domestic student during the course of their whole academic program abroad. Chinese participants studying in the UK mentioned the most overwhelming aspect was not “the endeavor to handle a different teaching style, but a psychological and physical struggle to live with an entirely different life pattern” (Gu & Schweisfurth, 2006, p. 82); study participants frequently cited boredom and isolation as part of their study abroad experience. Ranta and Meckelborg (2013) quantified Chinese international graduate students’ exposure to English in naturalistic settings during the first six months at a Canadian university and found that students spent a meager average of 46 minutes a day actively interacting in English.

Factors impacting the lack of full integration among domestic and international students are numerous. Huang & Brown (2009) suggested factors such as international students’ insufficient English communication skills, the perceived disinterest or impatience of domestic students, the lack of time due to academic demands, and the lack of shared common interests with domestic students. Five years later, a study by Lehto, Cai, Fu, and Chen (2014) confirmed and expanded such conclusions with focus group data collected from domestic and international students. To summarize, the data revealed that interactions among domestic and international students are plentiful; nevertheless, dialogue and integration are challenged due to paralleled social networks, language barriers and cultural barricades, and unclear potential benefits for the risk of reaching out. Although Lehto et al.’s (2014) focus group reports on the seemingly hopeless struggle for understanding and meaningful interactions among domestic and international students, there is research revealing a more successful picture of international student integration.

Positive Strategies

Only a few studies have focused on positive strategies used to adapt academically and socially to their new environments. Some of the strategies mentioned were related to developing a sense of creative adaptability (Rastall, 2006), agency (Clark & Gieve, 2006), self-directed discipline (Gieve & Clark, 2005), self-responsibility and independence (Gu & Schweisfurth, 2006). Liu (2013) found that international students relied on translation and mediation with more competent peers as they adjusted to the different demands of their host country (Liu, 2013). One particular growing strategy for domestic and international students alike is the use of social media for both academic and social purposes. Chinese international students in particular are utilizing social media platforms unfamiliar to the American social media landscape. WeChat, the Chinese version of WhatsApp, is a platform that may both facilitate and restrict learning, and as will be demonstrated in the findings, this tool offers both social and academic benefits and risks for Chinese international students within language-learning and content-based classrooms (Hafner et al., 2013; Thorne et al., 2015).
The Present Study

This study is motivated by the need to document typical and atypical phenomena involving Chinese international students in the United States. A longitudinal, descriptive approach will capture nuanced development over time. Drawing on the findings from studies in the United Kingdom and Canada regarding the Chinese international student population, this study will investigate the question of whether this population encounters similar or different experiences in the United States. It is my aim to offer an in-depth and detailed qualitative analysis of a first year Chinese international student and the social and academic strategies he employs in order to navigate his own position with his future and those around him.

Theoretical Framework: Positioning Theory

Positioning Theory takes center stage as the theoretical framework in the present study. Grounded in discursive social psychology, discourse analysis, and Austin’s theory of speech acts (1965), Positioning Theory examines how one locates oneself (reflexive) and others (interactive) with rights and obligations in and through talk (Davies & Harré, 1990). Reflexive positioning is how a person describes, or positions, oneself; for instance, one may state, “I am a self-disciplined student and work hard to earn my grades.” The other kind of positioning that will be employed in the current study is interactive positioning: what a person says that positions oneself in relation to the other person. An example of this would be a person saying, “My classmates are not as self-disciplined or hard-working as I am.”

The term positioning departs from its predecessor, role, and its scripted constraints of social roles and moves toward a more narrative approach. The Positioning Theory framework was selected to analyze the current data because it embraces the dynamic, longitudinal and discourse-focused data collected for this study, allowing for realistic accounts of the “fluid, dynamic and context-dependent” development over time (Kayi-Aydar, 2014). Through the lens of Positioning Theory, the participant of the current study will be represented in a multidimensional analysis of discourse that respects the complexity of his context, experiences, and attitudes.

Second language acquisition (SLA) research on positioning continues to grow (Anderson, 2009; De Costa, 2011; Kayi-Aydar, 2014; Kinginger, 2008; Norton, 2013). Kayi-Aydar (2012) utilized the Positioning Theory in the language-learning classroom, and noted that students’ positioning can have either facilitative or restrictive access to meaningful language experiences or opportunities. In her 2014 article, Kayi-Aydar explored how two English as a Second Language (ESL) students communicated at the micro and macro levels in a classroom and concluded that each student’s positioning strategy impacted their ultimate acceptance or marginalization. Through the use of the Positioning Theory, Kayi-Aydar has offered realistic suggestions for language instructors to increase their awareness of classroom interpersonal dynamics. Similarly, De Costa’s (2011) case study described how language beliefs and positioning impacted the learning outcomes of an immigrant ESL student from China in a Singaporean secondary school, and he urged future research to investigate learner beliefs and positioning through a longitudinal ethnographic lens in order to evaluate the impact of the larger sociopolitical context on the school’s curriculum and classroom culture. In the same vein, Anderson (2009) employed the Positioning Theory to explore classroom interactions and
curricular materials from an integrated micro-, meso-, and macro-social perspective. She found a close link between identity and positioning and noted their shared purposes of capturing the trajectories of learners’ emerging and recurring sense of selves in relation to people and the world around them.

The present study expands the notion of positioning from earlier classroom-focused studies to a more comprehensive examination of the participant’s reflexive and interactive positions both inside and out of the classroom throughout his first year at an American university. This case study is guided by the following questions:

RQ1. How does a Chinese international student position himself reflexively?
RQ2. How does a Chinese international student position himself interactively with others?
RQ3. What strategies does a Chinese international student use to navigate academic and social life in the United States?

Methodology

Context

The site of this case study is a large Midwestern university where the Chinese international student population has more than doubled in the last five years, from 1,993 students in the 2009-2010 academic year to 5,363 students in the 2013-2014 academic year (Office for International Students and Scholars, 2014). Implications of this population growth continue to emerge across the campus, and a number of university programs such as the university’s Intensive English Program (IEP), the English department’s pre-college writing program, the Office of International Students and Scholars, among a number of other discipline-specific programs, are seeking ways to serve this population’s diverse range of academic and social needs.

Participant

Freddy (a pseudonym) was born in the Anhui Province, west of Shanghai. At the time of the study, he was over 18 years old and spoke Mandarin as his first language. When I met Freddy for the first time, he had just moved to the United States after graduating from high school in July to participate in the university’s Intensive English Program’s (IEP) eight-week summer academic preparation program before the start of the academic school year. He began his first year of university that fall, lived in an on-campus dormitory with a Chinese roommate, and participated in both English for Academic Purposes (EAP) and mainstream courses: computer science, calculus, nutrition, and macroeconomics. His intended major was business, but he was especially interested in information technology (IT).

I received permission to interview Freddy from the associate director of the university’s IEP. This research project was IRB approved, and Freddy signed a consent form after reading and discussing it with a Chinese-speaking member of the research team. This Chinese graduate student and member of the research team joined each of the interviews as a cultural and linguistic broker (Duff, 2008, p. 137). Freddy gladly participated in conversations and appeared to be excited to share about his progress, concerns, and successes throughout the academic school year. At the start of the school year, I informed him that I had no influence upon the grades he
received in his courses; additionally, before I observe him in a number of his classes, I received both permission from Freddy and his instructors. I did not participate as a tutor for any of his academic classes, but told him I would be happy to discuss transitioning to college life and other topics such as time management.

Due to the nature of this case study, in which meaning and position are so critically investigated, I must also note my role as the researcher. I am a domestic graduate student and English is my first language. This position, no doubt, may have veiled me from full understanding and faulty interpretation during the course of interviews with Freddy.

**Data Collection**

The case study methodology is suitable for exploring the proposed research questions because it captures holistic, detailed information from Freddy’s responses to the various social, educational and linguistic settings in which he participated. The case study methodology offers a flexible framework through which the researcher can tailor the topic of study, ranging from language proficiency development of their participants (Hatch, 1978; Huebner, 1983; Ioup, Boustagu, El Tigi, & Moselle, 1994; Larsen-Freeman, 2006) to language users’ shifting identities and interactions (Norton, 2000; Valdéz, 1998; Willett, 1995).

Data collection follows Wolcott’s (1994) mnemonic for ethnographic qualitative research: **experiencing** (participant observation), **enquiring** (interviewing), and **examining** (studying documents) (Duff, 2008, p. 128). Table 2 details the data collection process.

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<thead>
<tr>
<th>Methods</th>
<th>Collection period (Sept. 2014—May 2015)</th>
<th>Data</th>
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<td>Enquiring: Interviews</td>
<td>8 Focal student interviews</td>
<td>Field notes</td>
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<td>Audio-taped: average time 45 min.</td>
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<td>2 Instructor interviews</td>
<td>Field notes</td>
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<td>Audio-taped: average time 15 min.</td>
</tr>
<tr>
<td>Experiencing: Classroom observations</td>
<td>2 each semester</td>
<td>Field notes</td>
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<tr>
<td>Examining: Artifacts</td>
<td>Ongoing</td>
<td>Written work, course syllabi, and assignments</td>
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The bulk of data comes from eight semi-structured interviews that lasted an average of 45 minutes each. The interview is recognized as a social practice, co-constructed with the researchers (Barkhuizen, 2013; Talmy, 2010). Interview questions were cyclical and open-ended in order to track Freddy’s changes in attitudes and behaviors; see Appendix A for sample interview questions. Interview recording instruments were the Garage Band recording system on the researcher’s laptop computer and the iPhone voice recorder as a backup.

Additionally, four classroom observations, two instructor interviews, and artifacts such as course syllabi and writing assignments were routinely collected to supplement the interview data for a holistic understanding of Freddy’s daily academic and social activities. For the purpose of
the current study, interview data with Freddy and one of his instructors was used because of their complementary content.

**Data Analysis**

Over seven hours of spoken English interaction were transcribed verbatim to provide an authentic and readable account (Duff, 2008, p. 157). Interviews were inductively coded for emergent themes such as imagined self, friendship, cultural adaption, future goals, technology, and relationships with parents. This recursive movement among themes, data, and theoretical framework is the defining artwork of qualitative analysis (Duff, 2008), what Davies and Harré (1990) describe as “a conversation in which is created a braided development of several story lines” (p. 50).

**Findings**

**Reflexive Positioning**

To review, reflexive positioning is how a person positions himself in and through discourse. Most prominent in Freddy’s reflexive positioning statements were regarding his current identity and imagined future.

**Current identity.** From the first to the last interview, Freddy described himself as a quiet, shy, and hard-working student who sat in the front of class, read the textbook before class, took notes during lectures, and reviewed the PowerPoint slides after class. He recognized that his self-discipline and interest in Information Technology were more than that of his peers. In addition to being enrolled university courses, he reported spending his free time independently studying computer languages such as Java and HTML. Early in the first semester, Freddy downplayed this self-determination and work ethic, exemplified in the excerpt below.

**Excerpt 1: I’m lazy and shy**

(Interview 3, October, lines 636-643)

**AUTHOR** Okay. Do you ever talk to the professor?

**Freddy** No.

**A** No?

**F** I’m so shy. ((Laughter))

**A** What are you afraid of?

**F** Uh, I don’t afraid of anything but, is, I’m lazy and shy.

In the above excerpt, Freddy describes, or positions, himself as a shy and lazy student. In actuality, however, one of Freddy’s ESL instructors reported Freddy being an industrious and motivated student. She stated, “he already has that motivation and, uh, outgoing kind of attitude” (Interview with instructor A, November, 10:45 minute). When Freddy noted his shyness and laziness in his interview with me, it became evident that Freddy’s reflexive

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1 From this point on, all interview participants will be coded with their first initial: F=Freddy, A=author.
positioning was skewed, at least at the beginning of his school year when he may have not had enough experience to know that his laziness was actually diligence.

Excerpt 2: Shy and uncomfortable
(Interview 8, April, lines selected from 163-169)

A What are your impressions of international students on campus?
F Hm, they are shy and yeah, to talk with the Americans, but they are more willing to communicate with the international students I think. And hm, some of them, I think, they are, hm, working hard on the study, yeah, they maybe have, uh, less parties and, like the organization activities, yeah...
A Is that true for you?
F Uh, I’m talking about myself ((laughter)).
A ((Laughter)) But do you, do you see yourself as shy and uncomfortable to talk with domestic students?
F Yeah, I, in fact, I’m more willing to talk with international students because, um, we have the same situation, yeah, we are not good at English, so yeah, we are same, almost.

In this excerpt, Freddy described himself as shy and uncomfortable. He aligned himself along with the other international students here, unified by their alleged limited English skills. This calls into question what, beyond language skills, drew international students together to “have the same situation...we are same, almost.” Furthermore, it is intriguing that Freddy shares this conversation with me, a domestic native English speaker. Once again, this contradiction demonstrates that Freddy adopted a self-deprecating reflexive position versus one that communicates his strengths and courage in his new environment.

Imagined self. Freddy frequently extended his reflexive position to include his imagined self and community (Lave and Wenger, 1991). Although the current university is ranked high for business, he wanted to transfer to a university in California for a number of reasons. He said he was seeking a school with higher rankings in the IT field than his current university, and he would like to be geographically closer to Silicon Valley and high school classmates attending universities there. Toward this end, he intentionally prepared himself to be an attractive transfer applicant by earning high grades, seeking opportunities to work on campus, and visiting California universities during spring break. At the end of the first semester, Freddy presented his “blueprint” for conquering his second semester: “the first goal is get high GPA...above 3.5. And, uh, I’m prepared for transferring to other school... And um, yeah, maybe to make lot of friends, and um, if I have free time...” (Interview 5, December, lines 98-103). Freddy’s strategy for accomplishing his goals was revealed in the following excerpt.

Excerpt 3: More focused on the study
(Interview 5, December, lines 416-420)
F And um, maybe the next year I will to, um, um, more focused on the study, because I think this year, uh, sometimes, I waste some times with, like, um, entertain? And, I, I think it’s, it’s time, I should waste it, yeah, I should focus more on study. Hm.
A So, what would that look like for you, to be more focused? What changes would you make?

F Hm, Maybe like, um, ((pause)) uh, oh, prepare the lessons before class,

A Hm,

F And review the lessons after class, yeah. And, mm, maybe to, to, take more long time, a long time, to make me clam-, calm down before the exam, and prepare it. Uh, every time I prepare it, it’s just for one night, I, I think it’s not enough if I want to get a high score.

In the above excerpt, Freddy notes that he wants to be more focused on his studies and waste less time for entertainment. He noted that he could prepare more before his classes and calm down before exams. This reveals his self-awareness and high level of conscientiousness.

In response to the first research question about how Freddy reflexively positioned himself, we can see that he had a humble approach to his self-conception, mature self-awareness and willingness to invest in the people, real or imagined, that were “helpful for [his] future” (Interview 5, December) (Kanno & Norton, 2003). Freddy defined himself as a responsible, disciplined and shy international student whose English language skills were still in need of improvement. Instead of dwelling on his current self-perceived limitations, Freddy courageously positioned and prepared himself for his future self in California and beyond. He was confident of his capability to develop the proper plan of action and work hard to realize his ideal future. It may not be a typical assumption that a first year domestic or international university student holds the ability for such honest assessment of one’s areas of improvement and the creative resourcefulness to compensate and develop. Freddy’s strong reflective skills served him well in and out of the classroom, which was evidenced by the fact that he did not avoid the unknown math problem, excel formula problem set, or an ambiguous American slang phrase.

**Interactive Positioning**

We now turn our attention to how Freddy employed Interactive positioning throughout the course of his first year at an American university. Different from the previously discussed and exemplified reflexive positions, interactive positioning is the way a person positions himself vis-à-vis other people in and through discourse. I will focus on how Freddy displays this Interactive positioning with parents and peers.

**Parents.** Some argue that parents of Chinese international students strongly influence their children’s educational path (Bodycott, 2009). Initially, it appeared as though Freddy’s major in business was an act of obedience versus his own choice: “Sometimes, I think I will choose the IT, but my father thinks, uh, that business is more suitable to find a job, more easier to find job, so I chose the business major, but I’m interested in IT” (Interview 1, September, line 192). Throughout the year, however, Freddy verified that his father’s suggestion was not an obligatory command. In November, Freddy shared, “Mm, my parents, I think, they are open-minded...And, uh, they always let me do some important decisions by myself. They think I should be independent,...And, uh, they didn’t decide my major, even the finance, but they suggest me to study the finance major,” (Interview 4, November, lines selected from 990-996). The words decide versus suggest will have to be left up to the interpretation of the reader, but Freddy claims that his rationale to major in business goes beyond acquiescing to his parents’ wishes. He desires
to situate himself among a network of imagined business friendships. In order to test his claim, I prompted Freddy to simply imagine life had he decided to change his major to IT, Freddy responded:

**Excerpt 4: Far away from people**  
(Interview 5, December, lines 238-242)

F  
_Uh, I didn’t think, I, I can change my major. Firstly, my father and mother hope I, uh, my major is business. And secondly, I think business is helpful for future, yeah, because it has a wide, wide range, and um, I’m not worry about to get a work, get a job, so I think, um, it’s very important, I don’t think I should change it._

A  
_Right, but what if?_

F  
_If I change, change to what? Like, computer science? Uh, ((pause)) maybe, ((laughter)), uh, I, I can, cannot get so many friends, uh, because I think, hm, IT, the people who study about computer science, they are, um, far away from people that,_

A  
_Mm._

F  
_...they are most interesting on the computer, instead of their friends._

In this excerpt, Freddy states that he chose his major because of its wide range of possibility for a job in the future. He could barely even consider changing his major from business, what his parents had suggested, to another major such as computer science because he considers IT people to be less social. It appears as though Freddy values relationships and networking over pursuing something that may be of more intrinsic interest to him.

**Friends.** The topic of friends naturally emerged from first interview to the last. One of his goals of studying in the United States was to find “the best American friend” and meet people in his major. The following excerpt offers a snapshot of Freddy’s initial goals during his time abroad.

**Excerpt 5: To make the best friend**  
(Interview 1, September, lines 147-150)

A  
_OKay. So, in addition to graduating from [this university], what other goals do you have during your time of living in the United States? Are they all academic?_

F  
_Hmm. The first thing actually is academic, and I wanna to touch some American friends, and uh, to make the best friend with them, and uh, uh, I hope I can meet some people in my major and uh like the IT major, because I’m interest in the IT, like the WeChat, these things. Yeah._

A  
_OKay, so how do you think you can become closer, or have connection with students here?_

F  
_I think I can be closer but, uh, it’s not I think very easy, and I should make progress and, uh, uh, step-by-step to, to, be suitable._

Freddy shares that beyond academic success, his goal was to make American friends. This was a challenge for him, though, because communication with domestic students was limited to short interactions in the hallways and classroom. Freddy noticed his inability to access deeper talk and
finally allocated this to different cultures and a lack of similar interests and because he was “shy and afraid of the language” (Interview 1, September, line 110). This excerpt is representative of how many international students feel when they imagine their future life at a Western university; they desire to have friendships with students from the host institution (Chacon, 1999).

Not only did Freddy want to make American friends, he was also eager to connect with other Chinese international students for the possibility of developing long-term professional relationships. In the following excerpt, Freddy describes the type of Chinese students he is seeking to befriend.

*Excerpt 6: I wanna make some elite friends*  
(Interview 5, December, selected lines from 173-212)

F: Uh, firstly, I wanna make some Chinese friends because they’re helpful for my future like in China…and secondly, I wanna make some international and American friends too, um, to, uh, let me think…

A: So when you talk about wanting to make Chinese friends, what, what kind of Chinese friends do you want to make? Because there are many different kinds of people.

F: Um, I, I don’t like to play games, like computer games like this…so, I wanna make some friends which is, um, who is, hm, have some abilities, like they are good at their business and good at um, like, computer science…Yeah, I wanna make some, elite, is that this word?

A: It’s a great word…Have you found any elite friends here?

F: Hm, not yet. Yeah,

A: Oh really.

F: Uh because, um, now lots of my friends like play computer games ((laughter)). I feel boring, they always play computer games, all of day…I’m not hate them… Just I don’t like play this.

A: So you want to make some Chinese friends who have skills, and who are elite…and who are focused maybe on developing business or computer science.

F: Yep, some Chinese people go abroad just for, uh, entertain, and I wanna to make some friends who’s studying here, yeah.

Freddy seeks friends that are elite, good at their business, good at computer skills, and are committed to studying—versus entertaining themselves. This desire shifted throughout the school year when Freddy recognized that developing friendships with Americans and elite students was harder than expected; as a result, his attention shifted toward building his own personal skillset in preparation for an imagined community elsewhere. Excerpt 7 below reveals this shift.
Excerpt 7: To make me, myself stronger
(Interview 6, lines selected from 300-310)

A Yeah. Have things changed?

F Uh, a little bit changed because, now, uh, now I wanna to, to make me, myself stronger, ...and um, such as, take the job...to training, the, uh, computer skills...Yeah, and, um, and I'm looking for work to make some elite friends, but it's not easy, so, I'm waiting for a chance,

A Where do you think this chance will happen?

F Um, maybe sometimes by accident...maybe when I transfer to other schools...yeah, I, I'm looking forward to make some friends which, who have some, um, common view with me...and, and some common topic, uh, similar hope.

On the social front, Freddy’s hope of finding the best American friend within his first year of study has yet to be realized. Although Freddy carries a sense of social dissatisfaction in his current situation, he notes that he still is “looking forward to make some friends which, who have some, um, common view...common topic...similar hope.” He knows he is seeking elite, skilled, and academically serious friends and believes that this caliber of friendship is attainable in his imagined community in California. The fact that Freddy desires friends to share such similar interests and beliefs displays his high level of self-awareness and ability to reflect upon his own goals and values.

Despite Freddy’s less than ideal social situation, he has developed relationships with a small group of Chinese international students. He met them when responding to their request for help with the university network system on WeChat and began to join them for dinners at the cafeteria and pick-up basketball games. Next year they will all share an apartment together. These are his “real friends,” the ones with whom he has daily contact, shares meals, and exchanges information about current events and the stock market (Interview 8, April, lines 77, 100). This demonstrates that Freddy has found social connection with students from his home country, one of the positive strategies assist an international student’s transition to a new host country (Liu, 2013).

Classmates. Although Freddy reports that interactions with domestic students are limited, he frequently mentioned relationships with other international students developed in the English Language Center (ELC) courses. For instance, one of his course instructors highlighted Freddy’s collaborative leadership, saying:

Excerpt 8: He’s become a great example
(Interview with instructor A, November, 6:00 minute)

His personality is such that he is a very obedient person, and very conscientious, and outgoing, and he is outgoing in the sense of finding people who are like him, and he has created a group, there’s a group of 4 or 5 of them, depending on the day, that are all very studious, conscientious, kind, caring individuals, but really dedicated to being obedient and showing that they are good students and want to learn. They’ve gravitated to each other and feed each other that way. So in the classroom, he’s created this little sub-group of studious... student A and Freddy just all hold it together as a group. For the classroom, what’s nice is that they really show that nature, that studious, dedicated kind
of nature for the class, so he’s become a great, as a teacher, he’s become a great example to show other students who are struggling.

Throughout the year, Freddy literally positioned himself among the other international students in his ELC courses, often a challenge due to the fact that the majority of students were from China. He mentioned that he preferred to sit with international friends from Brazil, Singapore, and Indonesia and away from the other Chinese students because he wanted to “train” his English skills (Interview 6, January, selected lines from 354-372).

In addition to intentionally positing himself among international students in his ESL courses, Freddy was also an active networker within his Chinese peer group in his mainstream courses. On many occasions, he spoke of recruiting Chinese classmates to join course-specific WeChat groups, a virtual space where students can communicate about assignments, test preparation, and other course-related details. Initially, he reported a relatively peripheral participant position in his economics WeChat group saying, “I just get some information...about the exam, the test” (Interview 3, October, lines selected from 418-420), and later mentioned he was happy to assist classmates in other classes, “Yeah, sometimes. Uh, like the ESL and math and, many people ask me questions about some class. Yeah...help each other” (Interview 3, October, lines 623-627). Eventually, however, Freddy’s helpfulness would be misused and challenge his underlying assumption that classmates help one another.

The second semester proved to be more challenging, and Freddy’s WeChat activity increased, particularly in his computer science course. At first he asked questions from his peers, but quickly realized he was the one assisting classmates who “don’t want to study themselves...rely on the other students” (Interview 7, March). At the peak of this helpfulness, Freddy was assisting between 10-20 classmates both on WeChat and face-to-face. Most of these help sessions lasted 5-10 minutes, but once he spent four hours with a classmate before the first exam. Eventually, he grew fatigued of this and was convinced that “the process to study is to search by yourself” (Interview 7, March, line selected from 289). And right before the year’s final exam time, Freddy’s position among his classmates in the computer science course shifted once again. He felt taken advantage of by the other students who needed his help, but once he pulled away from the WeChat group in order to work by himself, the other students marginalized him. The excerpt below details how these events caused Freddy to feel awkward and forced him to reevaluate peer relationships.

Excerpt 9: He felt very awkward
(Interview 8, April, selected from lines 50-100)

Y He was really willing to help people in the beginning, but then once you start, like, rejecting people, you kinda feel it’s your fault, which put him in a very awkward position... So, if you’re that person who’s use to getting help from you, then once you start to reject them, they’re kind of think that it’s your fault, you’re not a good person anymore, you’re not going to contact you. And so, he said, after he started rejecting them, they don’t even say hi to him in class...

F Yeah, and I think it’s weird that lots of people, they don’t consider about the questions, the problems. They just ask their friends, yeah, have no, um, I think they have no, consideration independent, yeah...actually, I just feel painful because I do help them a lot, but if you stop to help them, then yeah...
Freddy, in his motivated and collaborative spirit, wanted to assist his classmates with their homework, but when he began to withdraw from helping them he was not treated well. This was a difficult situation for Freddy because his identity as a successful student was both an advantage and a burden. Although Freddy’s experience of social exclusion is undesirable, it demonstrates his active positioning as a resilient and independent student who recognized real versus opportunity-seeking friends.

In response to the second research question, how Freddy positioned himself interactively, we can see that Freddy’s positioning allowed him to evaluate relationships based upon their importance and potential helpfulness for his future self and imagined community. In regards to his relationship with his parents, Freddy was dedicated to honoring them. While he acknowledged their suggestion to pursue a degree in business, he stated that he owns the decision. Academically, Freddy placed himself near international classmates in ELC classes to train his English skills and avoid speaking Mandarin with his Chinese classmates. Once again, Freddy revealed his ability to position himself among his ideal community of English speakers and challenge himself to interact with other international, non-Mandarin speaking classmates. And finally, Freddy’s experience of social exclusion is certainly an undesirable one, but it demonstrates his active positioning as a resilient and independent student who recognized real versus opportunity-seeking friends.

Discussion

When held up against similar cases that have been documented in the literature, Freddy’s case reveals more incongruities than commonalities. As previously mentioned, we cannot expect that all challenges surrounding international students’ transition described in the background section are applied across the board to the Chinese international student population; moreover, Freddy’s success as a first-year Chinese international student can be highlighted as an outlier against the common narrative of struggling international students (Gu & Schweisfurth, 2006; Ranta & Meckelborg, 2013). Freddy worked hard to do his best academically and socially. Freddy’s case resembles the findings of Huang & Brown (2009) and Lehto et al. (2014) that presented potential reasons for distance between international and domestic students. They found the definitive lack of integration and relationships formed among domestic and international students was due to parallel social lives, language and cultural barriers, and simply a low-risk approach to encountering and welcoming diversity. We see in Freddy’s case, however, that he was intentional and aware of building relationships with a number of student groups on campus.

In response to the third research question, Freddy’s strategic use of social media in and out of the classroom led to mixed results. He actively recruited classmates to join course-specific WeChat groups and created a Facebook group with his international non-Chinese classmates in ELC courses. He frequently shared his dream of developing his own smart phone application, ongoing networking activities with social media owners, and extracurricular independent studies.
for computer programming. This evidence points toward Freddy’s personal agency, resourcefulness and willingness to search for the answer, the proper “process of study” (Interview 7, March, line 288). Freddy’s commitment to adapt, collaborate, communicate in and out of the classroom, and take initiative in fulfilling his needs for future academic and career development. For instance, Freddy’s desire to transfer to a university in California motivated him to start working in the university cafeteria for more casual and professional interactions with native English speakers, further demonstrating his agency and self-discipline to manage his time, energy, and coursework in preparation for taking on more responsibility. Finally, Freddy’s experience with WeChat and his computer science classmates, however unfortunate, confirmed his awareness of his position as a diligent and helpful student, and the potential for this position to be quickly and unknowingly taken advantage of.

Pedagogical Implications

Just as Freddy naturally positioned himself for successful academic and social encounters, English language instructors and international student administrators can raise awareness to incoming international students of their personal agency. One helpful practice may be for international students to keep a study abroad journal in which they note the personal strengths and resources they possess, the areas in which they need assistance or are challenged, opportunities for growth and discovery, and practical steps toward the realization of goals and opportunities (Jackson, 2011).

Next, as the world continues to grow closer by the simple click of a button, we can work toward a more holistic integration of international students into the English language-learning classroom through productive use of social media (Hafner et al., 2013; Thorne et al., 2015). At the same time, however, Freddy’s experience with the computer science WeChat group serves as an example of the risks of social media in the academic realm. For instance, there are instructors who are present in a class’ WeChat group to monitor and provide clarification. This may serve as another medium through which English language practice can enter students’ daily social media platforms.

Limitations

Ten months of data collection is just the beginning of a truly longitudinal study of Freddy’s continually developing sojourn. In order to get a fuller understanding of this student’s transition, interviews with Freddy would continue throughout his undergraduate career. This would provide us with ample evidence to understand the strategies he employed over the course of years; furthermore, Freddy would have the opportunity to reflect back on his initial comments and goals from his first year and describe the continuing shifts in his reflexive and interactive positioning.

Next, Freddy does not travel this international student journey alone. Another limitation is this report’s sole focus on Freddy’s positioning versus giving voice to those with whom he journeys. To boost the reliability of this data, information from Freddy’s peers and instructors would have been collected and integrated.

Finally, as is the nature of case study research, the mass of data collected cannot be represented in one report. Future studies could analyze Freddy’s English language skill development through his ESL and mainstream classroom assignments. More specifically, a
focused investigation of Freddy’s simultaneous enrollment in two writing courses may shed light on similarities and differences of first year preparatory writing courses offered from different departments on campus. This would provide university departments with a unique opportunity to observe how the same student interacts within the two separate contexts.

**Future Research Directions**

The present study raises new and interesting questions in light of previous studies on positioning within the classroom by expanding the analysis to critical out of the classroom interactions and observations (Anderson, 2009; De Costa, 2011; Kayi-Aydar, 2012). More classroom observations and insight from other classmates and instructors is necessary to draw any large conclusions.

Finally, on the campus of the present study, academic and administrative departments are asking similar questions regarding the university’s international student population. These stakeholders are offering workshops and roundtables, conducting surveys and interviews, and developing international student leadership groups to investigate the needs, goals, and challenges for campus internationalization and successful international student transition on both the academic and social front. We recommend that this collaboration stretches beyond the borders of universities in order to establish a unified network would allow us to pool resources, share research questions and findings, and inform a wider audience.

**Conclusion**

This case study has tracked Freddy’s reflexive and interactive positioning throughout his first year at an American university and stands alone as a unique case in which an international student’s resourcefulness, hard work, self-awareness positioned him to work toward an ideal future self and community. As Freddy’s case study demonstrates, international students offer a diverse set of linguistic, cultural, and personal resources that can be identified and shared. What remains to be seen is what the American academic community can learn from these experiences in order to provide international students with an optimal educational experience abroad.

**References**


The Effects of Form-Focused Instruction on Implicit and Explicit Grammar Knowledge and Comprehension

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Abstract:

This study investigates the impact of three types of focus-on-form instruction (FFI) on learners’ reading comprehension and their development of the English past unreal conditional. The study also investigates whether the learners’ grammar development is implicit or explicit in nature. Fifty-one intermediate-level ESL learners were distributed into three groups. Each group read passages with different levels of explicitness of the grammar form: in the first input flood (IF) group, a baseline or control group, nothing was added to the text. For the second, textual enhancement (TE) group, the forms were enlarged and in bold. For the third rule presentation (RP) group, metalanguage describing the past unreal conditional was added to the flooded and enhanced forms. After reading, the participants’ form noticing was measured through a self-circling test; their reading comprehension was measured through a free-recall test. Timed and untimed grammaticality-judgment tests (GJT s) were used to measure form learning. One week later, a second (delayed) GJT test was administered to measure sustained form learning.

When compared with the IF group, the RP group showed significantly higher results on the GJT s and significantly lower results on comprehension. The timed GJT s and noticing scores showed a significant inverse correlation with comprehension. These results lead to three suggestions. First, more explicitness leads to better development of implicit grammar knowledge. Second, less explicitness leads to more focus on meaning and concomitantly higher comprehension scores. Third, the effectiveness of FFI should be re-considered in light of this potential inverse (VanPatten, 1990) or trade-off (Barcroft, 2002) relationship between form and meaning.

Keywords: comprehension, explicit knowledge, form-focused instruction, grammar, implicit knowledge

Numerous studies have demonstrated that various types of Form-Focused Instruction (FFI) with an intention to draw learners’ attention to a specific morpho-syntactic feature has been effective in facilitating learners’ subsequent processing of the target structure, leading to better intake (Alanen, 1995; Norris & Ortega, 2001). The tentative conclusion from these studies has been that the more explicit the FFI, the better learners process the grammar structure, resulting in better development of the target. However, what kind of grammar knowledge learners obtain from FFI has not been fully investigated. Moreover, how different levels of explicitness in FFI influences comprehension has not been studied thoroughly (Doughty, 1991; Lee, 2007; Leow, Egi, Nuevo, & Tsai, 2003; Wong, 2003). This study investigates these issues.
FFI and Form

FFI is a cover term to depict “any pedagogical effort to draw the learners’ attention to form, either implicitly or explicitly” (Spada, 1997, p. 73). Various types of FFI have been arranged along a continuum of extreme implicitness to extreme explicitness. Among many others, Input Flood (IF), Textual Enhancement (TE), and Rule Presentation (RP) are three major types of FFI. The three have been investigated regarding grammar knowledge and noticing, i.e., focal attention for making input into intake (VanPatten, 1996).

Input Flood (IF) is one of the most implicit methods of FFI (Doughty & Williams, 1998). In IF, the salience of the target structure is produced by frequency, an important factor for processing and for the acquisition of L2s (Ellis, 1994; Hulstijn, 1995). Studies show that IF can be facilitative for the development of target structures, but not as effective for intake when compared with TE and RP; its effectiveness for intake is less than desirable. Trahey and White (1993) utilized IF for English adverb placement over a two-week period and found that IF was effective for acceptance and use of the grammatical English SAV order, but not for rejecting ungrammatical SVAO order. However, IF was less effective for noticing and intake than TE (Shook, 1994) and RP (Alanen, 1995). When the target feature is non-salient like English third-person –s, incidental IF was not effective for gain of either implicit or explicit knowledge (Loewen, Erlam, & Ellis, 2009). It is difficult to say how the results in those studies would hold if implicit and explicit knowledge were measured separately as results of FFI.

TE is a type of FFI that attracts learners’ attention to form in written input by changing the properties of the text, such as using font change, italics, bold face, capital letters, color coding, and underlining (Sharwood Smith, 1993). Numerous studies on the effectiveness of TE on form learning have been conducted (Alanen, 1995; Doughty, 1991; Izumi, 2002; Jourdenais, Ota, Stauffer, Boyson, & Doughty, 1995; Lee, 2007; Leow, 1997, 2001; Leow et al., 2003; Overstreet, 1998; Shook, 1994, 1999; White, 1998; Winke, 2013; Wong, 2003). On the side of positive effects, TE has been proven effective for noticing (Alanen, 1995; Izumi, 2003; Jourdenais et al., 1995), recognition (Shook, 1994, 1999), recall (Alanen, 1995), production (Shook, 1994; 1999), and learning of target features (Lee, 2007). Contrastively, studies have also suggested that TE was not effective for intake (Leow, 1997), recognition (Overstreet, 1998), production (Overstreet, 1998), or acquisition (Izumi, 2003; Wong, 2003) of several morpho-syntactic features.

In light of these studies’ findings, one can say that there have been no conclusions as to the effectiveness of TE on processing morpho-syntactic information. However, the studies suggest that TE does not always facilitate the learning process of target structures due to many potential variables, such as the features of target structures (Ellis, 1994; Shook, 1994), learners’ prior knowledge about the target structure (Ellis, 1994; VanPatten, 1990), or learners’ proficiency (VanPatten, Williams, & Rott, 2004). Or it could be that there are not always measurable learning gains associated with enhancement: the enhancement may “jumpstart a possible learning path” (Winke, 2013, p. 324), but the implicit nature of enhancement may not always be enough to spur measurable form-learning gains.

The third type of FFI, RP, is the most explicit (Doughty & Williams, 1998). This is a technique that provides learners with a metalinguistic description of the target forms (Doughty &
Williams, 1998). Overall, the effects of RP have been proven positive for noticing and target grammar acquisition (Norris & Ortega, 2001) and more influential than TE regarding the use of the target structure (Alanen, 1995). It was also suggested that without RP, TE might not be effective for development of grammar structures (Alanen, 1995; White, 1998; Winke, 2013). However, RP did not necessarily have an advantage for grammar learning compared to TE for middle proficiency learners with some knowledge of English relative clauses after ten sessions of instruction (Doughty, 1991).

FFI and Implicit and Explicit Grammar Knowledge

Previous studies have mainly focused on the relationship between FFI and grammar knowledge. Generally speaking, studies have found that RP results in greater accuracy in tests measuring explicit knowledge. Ellis maintained (2005a) RP is less likely to lead to improved accuracy in spontaneous oral language use, which measures implicit knowledge of the target structure(s). On the contrary, explicit FFI often makes it possible to master an L2 by providing opportunities for development of implicit knowledge (Hulstijn, 2002). The effectiveness of RP on implicit grammar knowledge requires more investigation.

It is arguably suggested that explicit learning results primarily in explicit knowledge and implicit learning results primarily in implicit knowledge (Ellis, 2009; Dörnyei, 2009; Hulstijn, 2002). Even though the suggestion concerning implicit learning and knowledge has been controversial due to what constitutes implicit knowledge and how to operationalize it (Dörnyei, 2009), three major studies attempted to investigate the effectiveness of RP on implicit and explicit knowledge. The researchers argued that RP facilitated the learning process and development of implicit and explicit knowledge in Esperanto (an artificial language, de Graff, 1997), and in French (Housen, Pierrad, & Daele, 2005; Sheen, 2005). It is believed that the two types of grammar knowledge are two disparate structures neurobiologically (Dörnyei, 2009; Ullman, 2004), theoretically (Hulstijn, 2005), and psychologically (Ellis, 2009), but the relationship between the two types of knowledge and implicit and explicit FFI warrants more investigation.

Relationship between Form and Meaning

VanPatten (1996) claims that as one of the principles of L2 input processing, the Meaning Primacy Principle postulates “learners process meaning-bearing input for meaning before they process input for form” (p. 14). In ideal input processing for L1, form-meaning mapping at the semantic level and at the morpho-syntactic level should be well balanced and occur freely (VanPatten, 1996; VanPatten et al., 2004). However, due to limited linguistic knowledge and skills, L2 learners, especially beginners (VanPatten, 1990), consume much of their limited cognitive resources for comprehension. Therefore, meaning and form compete for attentional resources (e.g., noticing) in L2 processing.

Many studies have been conducted concerning the Meaning Primacy Principle, yielding some important findings. Only a limited amount of input can be attended to simultaneously for beginners (VanPatten, 1990) or at a given time as an operationalization for a time constraint (Greenslade, Bouden, & Sanz, 1999; Wong, 2001). However, when there are remaining attentional resources due to simplicity of the passages (Wong, 2003), short text length (Leow, 1997), or familiarity of the content (Lee, 2007; Overstreet, 1998), the learners may make form-meaning mappings using morpho-syntactic forms of high communicative value first. Advanced
learners, who have a considerable amount of stable prior knowledge about the target, can make form-meaning connections and develop intake of forms of little communicative value. Therefore, theoretically the more remaining attentional resources learners have, the better they can attend to forms with little communicative value (VanPatten, 1996).

Barcroft (2002) described more graphically the competitive relationship between semantic and structural processing using a processing-resource allocation (TOPRA) model. As depicted in Figure 1, this model also presumes that L2 learners have limited processing resources represented by the unmoving bold outer lines. The middle line is flexible depending on the degrees of elaboration or explicitness of instruction. Therefore semantic processing and form processing have a trade-off relationship with each other, supporting VanPatten’s (1996) claim about competition between meaning and form.

Figure 1. TOPRA model for the relationship between semantic processing, form processing, semantic learning, and form learning (Reproduction of Barcroft, 2002, p. 325).

A relevant question is whether the competitive or trade-off relationship between form and meaning is still valid even when learners have ample time to focus on form and meaning sequentially. Another question might be whether this either-form-or-meaning relationship changes if FFI with different explicitness is provided.

Relationship between FFI, Form, and Meaning

Studies have demonstrated that learners cannot pay focal attention to meaning and form due to their limited capacity (Greenslade et al., 1999; Leow et al., 2003; VanPatten, 1990; Wong, 2001). The logical question might be under what conditions learners’ attention can be directed toward form in the input with less loss of meaning. Accordingly, the major concern of previous studies has been how explicitness in FFI changes the Meaning Primacy Principle (VanPatten, 1996), resulting in balanced focus on form and meaning.

Concerning the connection between FFI and the competitive relationship between form and meaning, a few studies demonstrated that TE does not influence comprehension (Leow, 1997, 2001; Leow et al., 2003; Shook, 1999; Wong, 2003). On the other hand, two major studies found that FFI has negative effects for comprehension (Lee, 2007; Overstreet, 1998) and two studies suggested positive effects (Doughty, 1991; Overstreet, 2002). In her unique study of RP, TE, and comprehension, Doughty (1991) suggested that RP influenced comprehension negatively, whereas TE influenced comprehension positively for 20 middle proficiency learners with some prior knowledge about English relative clauses. Based on relevant studies, Doughty
cautiously suggested that overall TE does not influence comprehension negatively, but TE can detract learners’ attention from comprehension, depending on the learners’ prior knowledge about the target structure and its communicative values (Ellis, 1994; Han, Park, & Combs, 2008).

The Present Study

Research has shown that an increase in the level of explicitness of FFI influences L2 learners’ grammar knowledge positively and the more explicit FFI is, the greater the rate of form acquisition. However, the effects of different levels of explicitness on implicit and explicit grammar knowledge and comprehension have not been confirmed. At this juncture, a study that relates the effectiveness of instructional intervention with three different levels of explicitness on implicit and explicit grammar knowledge and comprehension is required. To that end, the present study aims to answer the following research questions:

RQ1. Do variations of FFI with different levels of explicitness influence ESL learners’ implicit and explicit grammar knowledge?

RQ2. Do variations of FFI with different levels of explicitness influence ESL learners’ comprehension and noticing?

RQ3. Are the two types of grammar knowledge, comprehension, and noticing related? If so, which might be the best predictor(s) of the two types of grammar knowledge?

Methodology

Participants

The participants were 51 intermediate-level adult ESL learners. They were recruited from an English learning institute at a large university in the Midwestern United States. Their L1s were Chinese (42), Korean (4), Spanish (2), Kazakhstani (2), and Arabic (1). Their average age was 21.02 years and their average age of onset for learning English was 10.53 years. On average, they had learned English for 10.49 years and had studied in the U.S. for one year.

Target Structure

For the purpose of operationalizing a learning situation where processing demands are amply taxing for the learners, the past unreal conditional was chosen as the target structure (see Appendix for example). The unreal conditional was found to be a relatively difficult rule for learners among the 17 English structures in terms of mean scores featured in Ellis (2006). Moreover, it has been defined as a complex grammar structure due to its features: 1) this structure has two clauses with verbs in different tenses, and 2) this rule requires extra attentional demands due to its higher degrees of abstraction compared with simple fact-based sentences (deGraff, 1997; Rosa & O’Neill, 1999).

Instruments

A total of 32 items for a written GJT were delivered using E-Prime. Sixteen items were distractors. Among the sixteen items for the target rule, eight items were ungrammatical and eight items were grammatical. The items were adapted and modified from Grammar in Use (Murphy & Smalzer, 2000). In a pilot study, five native speakers of English participated to judge the grammaticality of the 32 items and to record the time they used to judge each item. The time for each item was averaged and 120% of the mean time was allotted for each item (Ellis, 2005b).
The reading materials consisted of two parts, Readings 1 and 2, adapted and modified from *Grammar in Context* (Elbaum, 2005). Readings 1 and 2 were given to the IF group and TE group. The only difference was that for the TE group, the target structure was graphically enhanced using bolding in a slightly larger font. The RP group first received metalinguistic information about the target structure and out-of-context examples, and then read Reading 1. For the total reading administered to the IF and TE groups, the word count was 685 and the token count was 29. For the total reading for the RP group, the word count was 698 and the token count was 29.

Among many ways of measuring noticing (e.g., underlining, offline questionnaire, eye-tracking, think-alouds, stimulated recall), a self-recording method of noticing was used where learners circled words that drew their attention during Reading 1. Free-recall tests were paper-based and the participants were required to recall everything they could in English. After the delayed post-test, the participants answered a retrospective questionnaire.

**Procedures**

On Day 1, participants took timed and untimed GJTs using computers (Table 1). After the tests, the participants were divided into three groups randomly: IF, TE, and RP. Each participant took the paper-based treatment about the target structure for 20 minutes. The IF group read Readings 1 and 2 where IF was used. The TE group did the same reading as the IF group except that their reading had textual enhancement. The RP group received explicit rule presentation about the target grammar topic and read Reading 1 (see Appendix). In this way, the explicitness degrees were designed to increase from the IF group (IF only), the TE group (IF and TE), to the RP group (IF, TE, and RP). After the treatment, each participant took the self-noticing test and free-recall test on Reading 1. After the two tests, they took the same GJTs. The items in the GJTs were presented randomly.

Table 1

*The Procedures of the Study*

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Pretest</th>
<th>Timed and untimed GJTs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>Input Flood group</td>
<td>Textual Enhancement group</td>
</tr>
<tr>
<td>Reading 1 (without TE)</td>
<td>Reading 1 (with TE)</td>
<td>Rule Presentation</td>
</tr>
<tr>
<td>Reading 2 (without TE)</td>
<td>Reading 2 (with TE)</td>
<td>Reading 1 (with TE)</td>
</tr>
<tr>
<td>Noticing/comprehension</td>
<td>Self-circling test for noticing, Free-recall test on Reading 1</td>
<td></td>
</tr>
<tr>
<td>Immediate posttest</td>
<td>Timed and untimed GJTs</td>
<td></td>
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</tbody>
</table>

**After one week**

<table>
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<tr>
<th>Day 2</th>
<th>Delayed posttest</th>
<th>Timed and untimed GJTs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire</td>
<td>Retrospective questionnaire</td>
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</table>
One week later, on Day 2 for the delayed post-test, each participant took the same timed and untimed GJT’s. After that, they filled out the retrospective questionnaire.

**Data Analyses**

**Coding.** For GJT’s, the number of correct answers to each stimulus was tabulated. The perfect score was 16. For noticing levels, the number of the visually enhanced words that the participants drew circles around was tabulated. The full score of this test was 79, which is the number of words used for the target structure in Reading 1. For the free-recall test intended to measure comprehension, Carrell’s (1985) definition of idea unit was used for scoring. In the scoring each idea was composed of a main or subordinate clause. Every infinitival construction, gerundive, nominalized verb phrase, and conjunct was also considered an idea unit (Carrell, 1985). The total number of idea units was 47. Inter-rater reliability between two raters’ codings was measured using the Intraclass Correlation Coefficient (ICC). The average was .976.

**Statistical Analyses.** For RQ1, concerning the relationship between instruction and two types of grammar knowledge, mixed-design repeated measures ANOVAs were conducted separately for each type of knowledge. The dependent variables were the scores of the timed and untimed GJT’s of the pretest, immediate posttest, and delayed posttest. The independent variable was type of instruction. For RQ2, regarding the relationships among three types of instruction, comprehension and noticing, two ANOVAs were employed using the free-recall and noticing test scores as dependent variables. The independent variable was instruction type. For RQ3, concerning the relationships between the noticing levels, two types of grammar knowledge, and comprehension, Pearson correlation coefficients were employed to obtain basic ideas about the relationships. Two multiple regressions were used for further investigation of the associations between the two types of grammar knowledge, comprehension, and noticing. The outcome variables were the two types of knowledge. For implicit knowledge, the predictors were explicit knowledge gain, comprehension, and noticing. For explicit knowledge, the predictors were implicit knowledge gain, comprehension, and noticing.

**Results**

A descriptive summary of the GJT’s of the three groups for the unreal past conditional is shown in Table 2. As a preliminary process, the pre-timed and pre-untimed GJT scores of the three groups were compared with one-way ANOVAs. Pre-timed and pre-untimed GJT scores of the three groups were not statistically different from one another before treatment, \( F(2, 48)=2.44, p=.10 \) and \( F(2, 48)=2.86, p=.07 \), respectively.

<table>
<thead>
<tr>
<th>Test</th>
<th>Time</th>
<th>Input Flood n=17</th>
<th>Textual Enhancement n=17</th>
<th>Rule Presentation n=17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Gain</td>
</tr>
<tr>
<td>Timed GJT</td>
<td>Pre</td>
<td>7.35</td>
<td>1.41</td>
<td>-1.29</td>
</tr>
<tr>
<td></td>
<td>Immediate Post</td>
<td>6.06</td>
<td>1.98</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td>Delayed</td>
<td>6.94</td>
<td>2.11</td>
<td>-0.24</td>
</tr>
<tr>
<td>Untimed GJT</td>
<td>Pre</td>
<td>7.59</td>
<td>0.94</td>
<td>-0.53</td>
</tr>
<tr>
<td></td>
<td>Immediate Post</td>
<td>8.29</td>
<td>0.92</td>
<td>1.42</td>
</tr>
<tr>
<td></td>
<td>Delayed</td>
<td>9.00</td>
<td>1.41</td>
<td>0.71</td>
</tr>
</tbody>
</table>
Two mixed design repeated measures ANOVAs were conducted to compare the influence of explicitness of instruction on timed GJT and untimed GJT. As Table 3 shows, there was no main effect for time, $F(2, 96)=.013, p=.987, r=.01$, which means there was not a change in the timed GJT scores over the three time periods when averaged across the group factor. There was not a main effect for instruction either, $F(2, 48)=.172, p=.842, r=.06$. This means that the three groups’ means of the timed GJT scores were not statistically different when averaged across the time factor.

Regarding interaction effects, for the timed GJTs, there was a significant interaction between time and instruction, $F(4, 96)=3.667, p=.008, r=.19$. That means the changes in the timed GJT scores across three time periods are different for the three groups. The test of within-subjects contrasts proved that there was a significant difference of the timed GJT scores between the pre-test period and the immediate post-test period, $F(2, 48)=7.707, p=.001, r=.37$, but not between the post-test period and the delayed post-test period, $F(2, 48)=2.235, p=.118, r=.21$ or between the pre-test period and the delayed post-test period, $F(2, 48)=2.060, p=.139, r=.20$.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Df</th>
<th>$F$</th>
<th>$p$</th>
<th>$r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction</td>
<td>2</td>
<td>.172</td>
<td>.842</td>
<td>.06</td>
</tr>
<tr>
<td>Within subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>2</td>
<td>.013</td>
<td>.987</td>
<td>.01</td>
</tr>
<tr>
<td>Time X instruction</td>
<td>4</td>
<td>3.667</td>
<td>.008</td>
<td>.19</td>
</tr>
</tbody>
</table>

To further investigate the interaction effect, a one-way ANOVA on the gain between pre- and immediate post-test periods was conducted. This confirmed a significant effect of instruction in gain of timed GJT between pre- and immediate post-test periods. The IF group ($M=1.29$, $SE=.48$) was significantly different from the TE group ($M=.35$, $SE=.51$), $p=.009, r=.30$, and the RP group ($M=1.18$, $SE=.25$), $p<.001, r=.79$. However, the TE and RP groups were not different regarding gains on the timed GJT, $p=.181, r=.11$. These patterns are illustrated in Figure 2.

Concerning the untimed GJTs (Table 4), there was not a significant interaction effect between time and instruction, $F(4, 96)=1.791, p=.137, r=.19$. There was a significant main effect of time, $F(2, 96)=6.148, p=.003, r=.34$, which means that there is a significant change in the untimed GJT scores over the three time periods when averaged across the group factor. Pair-wise comparisons revealed that there was a significant difference in the untimed GJT scores between pre-test and immediate post-test time periods, $F(2, 48)=12.895, p=.001, r=.46$ There was also a significant difference of the scores between pre-test and delayed post-test time periods, $F(2, 48)=4.419, p=.041, r=.29$. There was a borderline significant main effect of instruction, $F(2, 48)=3.113, p=.054$, with a small effect size, $r=.25$ (Field, 2009). That means that when averaged across the time factor, the three groups’ mean scores were close to a significant difference.
Figure 2. Profile plot for Timed GJT scores for three groups across three Time periods.

Table 4

Results of Mixed Design ANOVA for Untimed GJTs

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between-subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction</td>
<td>2</td>
<td>3.113</td>
<td>.054</td>
<td>.25</td>
</tr>
<tr>
<td>Within Subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>2</td>
<td>6.148</td>
<td>.003</td>
<td>.34</td>
</tr>
<tr>
<td>Time X Instruction</td>
<td>4</td>
<td>1.791</td>
<td>.178</td>
<td>.19</td>
</tr>
</tbody>
</table>

As Figure 3 shows, the TE and RP groups showed an increase in untimed GJT scores between pre-test and immediate post-test periods, which is similar to the case of the timed GJT scores. The two groups’ untimed GJT scores decreased between the immediate post-test and delayed post-test periods, which was also shown for the timed GJT plot. It is noteworthy that the RP group’s increase and decrease of the scores were steeper than those of the TE group. The IF group’s change in the scores indicated a remarkable difference from that of the timed GJT scores. The IF group showed a steady increase of the scores across the three time periods.
Figure 3. Profile plot for Untimed GJT scores for three groups across three time periods.

For Research Question 2, which asked about the comprehension test scores and the noticing levels of the three types of instruction, two one-way ANOVAs were conducted. Table 5 summarizes the descriptive statistics of the free-recall test and noticing levels.

<table>
<thead>
<tr>
<th>Test</th>
<th>Input Flood n=17</th>
<th>Textual Enhancement n=17</th>
<th>Rule Presentation n=17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free-recall</td>
<td>Mean 11.62</td>
<td>Mean 9.18</td>
<td>Mean 4.53</td>
</tr>
<tr>
<td>Noticing</td>
<td>SD 4.78</td>
<td>SD 3.82</td>
<td>SD 3.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding the free-recall test, the IF group showed the highest mean score and the RP group demonstrated the lowest mean score. The TE group’s mean score registered in the middle of the two groups. In terms of the noticing levels, the RP group demonstrated the highest mean score and the IF group showed the lowest mean score.

Table 6 demonstrates the results of two one-way ANOVAs. With regard to the free-recall test scores, there was a significant difference between the three instruction groups, $F(2,48)=13.60, p<.001$, whose effective size is large, $r=.60$ (Field, 2009). A post-hoc test, with Bonferroni adjustment, showed that the RP group ($M=4.53, SE=.80$) was significantly different from the IF group ($M=11.62, SE=1.16$), $p<.001$, $r=.86$ and TE group ($M=9.18, SE=.93$), $p=.002$, $r=.71$. In terms of noticing, a significant difference was found between three groups, $F(2,48)=13.60, p<.001$, whose effect size is threshold for a large effect, $r=.50$ (Field, 2009). Another Bonferroni-adjusted test revealed that the IF group ($M=5.59, SE=1.56$) was significantly...
different from the TE group ($M=26.76, SE=5.95$), $p=.002$, $r=.67$ and the RP group ($M=29.88$, $SE=5.21$), $p=.001$, $r=.76$.

Table 6
*Results of ANOVAs for Free-Recall Test and Noticing*

<table>
<thead>
<tr>
<th>Sources</th>
<th>Dependent variable</th>
<th>df</th>
<th>$F$</th>
<th>$p$</th>
<th>$r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction</td>
<td>Free-recall test</td>
<td>2</td>
<td>13.60</td>
<td>.000***</td>
<td>.60</td>
</tr>
<tr>
<td></td>
<td>Noticing level</td>
<td>2</td>
<td>8.07</td>
<td>.001**</td>
<td>.50</td>
</tr>
</tbody>
</table>

*Note.*** $p<.001$, **$p<.01$

Concerning Research Question 3 about the relationship between gain scores of timed GJT, and untimed GJT, indication of level of noticing, and the free-recall test, Table 7 summarizes the results of the Pearson correlation coefficients without consideration of type of instruction.

Table 7
*Correlations between Gains of GJT, Noticing, and Free-recall Test*

<table>
<thead>
<tr>
<th>Gain of timed GJT</th>
<th>Gain of untimed GJT</th>
<th>Noticing</th>
<th>Free-recall test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain of timed GJT</td>
<td>-</td>
<td>.241</td>
<td>.068</td>
</tr>
<tr>
<td>Gain of untimed GJT</td>
<td>-</td>
<td>-</td>
<td>.108</td>
</tr>
<tr>
<td>Noticing</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note. * Correlation is significant at the 0.05 level (2-tailed).

From the point of free-recall test, there were two significant negative correlations between the free-recall test scores and the two variables, gain of timed GJT scores and noticing. The free-recall test scores were negatively correlated with the gain of timed GJT with a medium sized association, $r=-.34$, $n=51$, $p=.016$. There was also a medium sized negative correlation between the free-recall test scores and noticing levels, $r =-.37$, $n =51$, $p =.007$. Gain of untimed GJT was slightly negatively correlated with the scores of the free-recall test, but that was not statistically significant.

For further investigation on the combined association between the two types of grammar knowledge, free-recall test and noticing, two simultaneous multiple regressions were conducted. The results of the multiple regression with gain of implicit knowledge as the dependent variable are in Table 8.

Table 8
*Results of Multiple Regressions for Variables Predicting Implicit Grammar Knowledge*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>SE $\beta$</th>
<th>Standardized $\beta$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free-recall</td>
<td>-.150</td>
<td>.058</td>
<td>-.368</td>
<td>.013</td>
</tr>
<tr>
<td>Gain of untimed GJT</td>
<td>.233</td>
<td>.127</td>
<td>.245</td>
<td>.072</td>
</tr>
<tr>
<td>Noticing</td>
<td>-.009</td>
<td>.013</td>
<td>-.095</td>
<td>.513</td>
</tr>
</tbody>
</table>
The three variables in the model for implicit grammar knowledge explained 18% of the total variance in gain of implicit knowledge, $F(3, 47)=3.36, p=.027$. The free-recall test scores made a significantly negative contribution to the prediction of the gain of implicit knowledge (standardized beta= -0.368, $p=0.013$). Neither gain of untimed GJT (standardized beta= 0.245, $p=0.072$) nor noticing (standardized beta= -0.095, $p=0.513$) significantly contributed to the gain of implicit knowledge. In sum, comprehension is the best predictor of implicit grammar knowledge gains, but in an inverse relationship.

Table 9 demonstrates the results of the multiple regression with the gain of explicit grammar knowledge as the outcome variable and with free-recall test scores, gain of explicit grammar knowledge, and noticing as the predictors.

Table 9

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>SE β</th>
<th>Standardized β</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free-recall</td>
<td>.054</td>
<td>.069</td>
<td>0.126</td>
<td>.435</td>
</tr>
<tr>
<td>Gain of timed GJT</td>
<td>.289</td>
<td>.157</td>
<td>0.274</td>
<td>.072</td>
</tr>
<tr>
<td>Noticing</td>
<td>.013</td>
<td>.015</td>
<td>0.136</td>
<td>.373</td>
</tr>
</tbody>
</table>

The three variables in this model explained 8% of the total variance in gain of explicit grammar knowledge, $F(3, 47)=1.34, p=.273$. The model itself was not significant; furthermore, the free-recall test scores did not make a significant contribution to the prediction of the gain of explicit knowledge (standardized beta= -0.126, $p=.435$). Neither gain of timed GJT (standardized beta= 0.274, $p=0.072$) nor noticing (standardized beta= 0.136, $p=0.373$) significantly contributed to the gain of explicit grammar knowledge.

Discussion

The first research question was about the relationship between explicitness in FFI and the development of the two types of grammar knowledge of the past unreal conditional. Overall, more explicitness in FFI facilitates development of the grammar structure, as has been found in previous work (Alanen, 1995; de Graff, 1997; Housen et al., 2005; Jourdenais et al., 1995; Norris & Ortega, 2001; Lee, 2007; White, 1998). However, the results require more elaboration in terms of the relationship between degrees of explicitness and two types of grammar knowledge.

Concerning implicit grammar knowledge, there was a significant difference between the three groups on the immediate post-test. The RP group showed significantly better results than the IF group. This could be evidence that more explicitness leads to higher scores in timed GJTs and less explicitness leads to lower scores. This finding seems to support the idea that more explicitness facilitates the development of the target structure regarding implicit grammar knowledge as evidenced by better scores in timed GJTs (de Graff, 1997) and unplanned speech (Housen et al., 2005; Sheen, 2005). The current study also suggests that explicit instruction not only promotes explicit grammar knowledge, but also implicit knowledge. Researchers have suggested that knowledge learned through implicit learning becomes implicit knowledge and that knowledge gained through explicit learning becomes explicit knowledge (Dörnyei, 2009; Hulstijn, 2002). The results negate this claim. In this study, explicit learning facilitates implicit knowledge. IF is the most implicit and RP is the least implicit. Therefore, the IF group should demonstrate the highest score of implicit knowledge, whereas the RP group should demonstrate the lowest. As Figure 2 illustrates, the RP group’s performance showed the best gain of implicit
knowledge and the IF group showed the worst gain between the pre and immediate post-test periods. These results could suggest that learning with high explicitness operationalized by RP can facilitate gain of implicit knowledge without implicit learning as a direct mediator (de Graff, 1997; Dörnyei, 2009; Housen et al., 2005; Hulstijn, 2002; Sheen, 2005).

Concerning explicit grammar knowledge, the results did not indicate a statistical difference between the IF, TE and RP groups, which means that more explicitness does not necessarily lead to higher untimed GJT scores. In other words, given enough time to answer the items in untimed GJT, all groups could arguably benefit from this exposure. The reason why the more explicit instruction in RP did not influence the learners’ developing process in terms of explicit grammar knowledge might be explained in two ways. Firstly, there was no difference in noticing levels between the RP and TE groups, which might have resulted from the target structure’s communicative value and perceptual saliency, as discussed by prior research in this area (Doughty, 1991; Ellis, 1994; Greenslade et al., 1999; Lee, 2007; Leow et al., 2003; Robinson, 1996; Shook, 1994, 1999; VanPatten, 1990; Wong, 2003). Language learners seem to pay attention to form, depending on the nature of the target grammar structure. The unreal past conditional is a meaning-bearing form with semantic value for the purpose of understanding the context. Moreover, the structure consists of two clauses with some formulated words, which makes the structure perceptually salient. These two features of the target structure might have drawn the two groups’ focal attention to a similar degree and their noticing might have resulted in similar developing process of the target. However, frequency effect of IF, i.e., repetition without TE, was not as effective as TE or RP. Secondly, TE in this study might have been more saturated with the target form, drawing more attention on the form than TE in other previous studies. According to Lee and Huang (2008), the average reading length for one session in the studies is 377 words and 12 tokens per form. In this study, more words and tokens were utilized in TE—685 words and 29 tokens. This increase in words and tokens might have added the frequency effect for the TE learners, resulting in similar grammar development for the TE and RP groups. Based on these two reasons, with due caution, it can be suggested that when the target structure is complex and the learners have some prior knowledge about the feature, during a short period, RP might not necessarily be effective (Doughty, 1991). In other words, TE (Lee, 2007) and IF (Trahey & White, 1993) might be good enough to draw learners’ attention and lead development of the target structure.

The second research question was about the relationship between explicitness of FFI, comprehension, and noticing. This study demonstrated that overall, more explicitness in instruction led to higher indications of noticing (Alanen, 1995; Jourdenais et al., 1995; Leow, 1997, 2000; Robinson, 1996; Shook, 1994) and to better implicit knowledge in the immediate post-test (de Graff, 1997; Housen et al., 2005; Sheen, 2005), but concomitantly lower comprehension (Doughty, 1991; Izumi, 2003; Lee, 2007; Overstreet, 1998; Wong, 2003). The RP group demonstrated the highest noticing, but their comprehension was negatively influenced. On the contrary, the IF group showed the lowest noticing and highest comprehension, while the TE group’s comprehension was as good as the IF group’s. This result is in line with studies that reported no negative effects (Leow, 1997, 2001; Leow et al., 2003; Winke, 2013; Wong, 2003) or even a positive effect (Doughty, 1991; Overstreet, 2002) of TE on comprehension.

FFI surely changes L2 learners’ input processing. The Meaning Primacy Principle (VanPatten, 1996) is valid when there is not an intervention of FFI (VanPatten, 1990; Greenslade et al. 1999; Wong, 2001; Leow et al., 2008). However, when explicitness of instruction is a
factor, this principle does not always apply. In this study, when RP in a Focus on Forms (FonFS) context is used first and followed by TE, comprehension suffers. In other words, it appears the explicitness of RP in an out-of-context setting was strong enough to override the Meaning Primacy Principle and kept the learners’ attention from going back to the primary meaning processing. On the other hand, the IF group also demonstrated a short-term inflexibility of input processing in the immediate post-test for implicit grammar knowledge. Twenty minutes could be long enough to focus on meaning and form freely. However, due to the low explicitness of IF, the group most likely could not utilize their remaining cognitive resources for form processing as well as the other two groups, resulting in the low implicit grammar knowledge in the immediate post-test. In sum, the IF group most likely did not turn their attention from meaning to form freely (Lee, 2007; Leow, 1997; Wong, 2003), nor the RP group from form to meaning. These cognitive inflexibilities emphasize the significance of effective FFI in input processing regarding form and meaning. The remaining issue for researchers is to investigate the proper degrees of explicitness of FFI for a balance between form and meaning using various grammar structures regarding communicative value, complexity, saliency, and learners’ prior knowledge about the target structure.

RQ3 concerns the relationship between two types of grammar knowledge, comprehension, and noticing without taking instruction type into account. The overall results support previous studies that suggest that meaning and form are two competitive (Greenslade et al., 1999; VanPatten, 1990; VanPatten et al., 2004; Wong, 2001) and disparate constructs (Lee, 2007). The results also support that when the target structure is cognitively taxing, meaning and form are in a trade-off relationship (Barcroft, 2002). However, this result is not in agreement with Leow et al.’s (2008) work, which held that form processing does not influence comprehension negatively. This discrepancy might be attributed to the different complexities of the target forms. Leow et al. investigated form processing using Spanish morphological targets: la, lo, and -n. Processing these simpler forms may have caused the participants to process the information less deeply (Leow et al., 2008), failing to clearly demonstrate the competitive relationship of processing form and meaning. As Barcroft (2002) pointed out, the trade-off relationship between form and meaning can be found when the processing demands are highly taxing, as in this study’s.

Concerning the competitive relationship between meaning and form, this study revealed a dichotomy between comprehension and implicit knowledge, but not for explicit knowledge (see Tables 7 and 8). This result could be explained by the nature of knowledge that learners tap into for comprehension. Knowledge for processing lexical items is inherently explicit due to its meaning-related attributes (Dörnyei, 2009; Paradis, 2009; VanPatten et al., 2004). That may mean that comprehension processing that requires form-meaning mapping for meaning-bearing words taps into explicit knowledge and explicit memory of the learners. Therefore, it can cautiously be suggested that because comprehension leads to focus on lexical meaning and form-meaning mapping processing taps into explicit knowledge by nature, the explicit grammar knowledge in this study is not necessarily negatively related to comprehension. In this case, implicit grammar knowledge may be arguably distinct from explicit grammar knowledge (from the perspective of a competitive relationship between form and meaning).

Implicit knowledge is claimed to be the default and more prevalent construct over explicit knowledge in L1 and L2 learning (Dörnyei, 2009; Hulstijn, 1995; Paradis, 2004; Ullman, 2004) and is not as susceptible as explicit knowledge to individual differences (Krashen, 1985;
Reber, 1993), time pressure (Ellis, 2005b), or the lapse of time (Allen & Reber, 1980). Ellis (1994) also emphasized the importance of implicit knowledge by saying, “Ultimately success in L2 learning depends on implicit knowledge” (p. 98). Even though explicit knowledge is important for adult learners, the implicit learning process and knowledge turn and integrate explicit knowledge into the subsequent input processing (Ellis, 1994). This means that tapping into implicit knowledge is default in L2 processing (Dörnyei, 2009; Ellis, 2009; Paradis, 2004) and implicit knowledge is more pervasive and crucial in language learning and use, whereas explicit learning is secondary or peripheral (Bialystok, 1978; Ellis, 2009; Krashen, 1985; Reber, 1993). As the results in this study demonstrate, only pervasive and prevailing implicit knowledge seems to compete with comprehension for learners’ attention, resulting in a trade-off relationship between these two factors. It may mean that the inverse relationship between form and meaning could be narrowed into implicit grammar knowledge and comprehension. Definitely, more investigation is required on this issue.

Four conclusions can be drawn. First, more explicitness in FFI facilitates the development of a complex English structure in terms of implicit grammar knowledge. However, the effect did not last till delayed post-testing one week later, indicating short-term effects of higher explicitness. Second, RP out of context, followed by TE, might redirect input processing by having learners focus on form rather than meaning due to its high explicitness. This high explicitness also results in a detrimental effect on comprehension. In comparison, IF facilitates the development of the target structure in the lowest degree, but comprehension in the highest degree. Third, for the English past unreal conditional form that bears communicative value and salience, TE appears more effective than RP in that TE is not at a disadvantage in terms of syntactic development and at the same time has a significant advantage concerning comprehension. Fourth, implicit grammar knowledge and explicit grammar knowledge are two disparate constructs, as argued by Dörnyei (2009), Ellis (2009), Hulstijn (2005), and Ullman, (2004). In addition, implicit grammar knowledge and comprehension seem to be disparate and competitive for cognitive resources.

This study has two major pedagogical implications. First, teachers should bear in mind the trade-off effects when they engage in FonFS, FonF, and FonM. Due to the mid-range of explicitness, TE with IF embedded seems to be the most beneficial in terms of the balance between comprehension and grammar learning among the three types of instruction on the English unreal conditional for intermediate-level learners. Another pedagogical point is that even though studies have proven that FFI such as RP is effective for learning form (Norris & Ortega, 2001), this study also demonstrates that learners with RP cannot direct their attention from form to meaning freely. Therefore, when teachers want to use RP as preemptive and planned FonF (Ellis, Basturkmen, & Loewen, 2002), they will have to decide how to direct learners’ attention naturally from form to meaning. As Jourdenais et al. (1995, p. 184) put it, “striking a balance between emphasizing accurate production of L2 forms and promoting meaningful communication in real context has been a recent concern in the field of second language teaching and acquisition.” Regarding this concern, this study suggests potential benefits and pitfalls of three types of FFI—IF, TE, and RP.
References


HEO – EFFECTS OF FORM-FOCUSED INSTRUCTION


**Appendix**

Read the following passages carefully until the limited time is up (20’)
After time is up, you will take tests based on your reading.

The Past Unreal Condition

** If I had been stronger (If Subordinate Clause), I would have become an athlete (Main Clause).
If + subject + HAD + Past Participle, subject + WOULD HAVE + Past Participle
Past Participle: taken, gotten, gone, eaten...

1. The unreal condition in the PAST can describe a situation that is NOT REAL. Use the Past Perfect (had + PP) in the IF clause and WOULD HAVE + Past Participle in the main clause.
   - If you had been alive 100 years ago, you would have made about $200 a year. (You were not alive 100 years ago)
   - If you had lived 100 years ago, you probably wouldn't have graduated from high school.
   - If I had known you were in the hospital, I would have gone to see you.
2. **COULD** or **MIGHT** can be used in the main clause instead of **WOULD**.
   - If you had gotten an infection, you could have died. (You didn’t get an infection)
   - If you’d given birth to a baby, it might have died young.
   - If John hadn't lent me the money, I couldn't have bought the car.

3. If **POSSIBILITY** should be used in the IF clause, use **HAD BEEN ABLE TO** for the Past Perfect of **COULD**
   - If my great-grandparents had been able to come to the U.S. 100 years ago, our lives would have been easier. (My great-grandparents could not come to the U.S.)
   - If you'd been able to become a doctor 100 years ago, you wouldn't have been rich.

4. We often wish for things that were not real or true. Use a Past Perfect tense verb (had + past participle) to wish for something in the PAST.
   - Reality: I didn't know my grandfathers when I was young.
   - Wish: I wish I had known them when I was young.
   - Reality: My aunt didn't have kids when she was young.
   - Wish: She wishes she'd had kids when she was young.

If the real situation uses **COULD**, use **COULD HAVE + Past Participle** after **WISH**.
- Reality: My favorite dog died years ago. I couldn't clone my dog.
- Wish: I wish I could have cloned her.
Stop Using *That*: Expressing Definiteness in Korean

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Abstract

Definiteness is visibly expressed by definite articles in English, but some languages such as Korean lack this morphological exponent. However, speakers of such languages still mark definiteness in different ways. In this proposal, we lay out a study that examines the (re)assembly required by L1-English L2-Korean learners where the formal feature of definiteness in the L1 has to be readjusted to indirect expressions in the L2. In particular, we propose to examine how L1-English learners distinctly interpret and produce the feature [definite] that has been coded overtly (demonstrative determiners) and covertly (word order change) in Korean. The participants’ use of demonstrative and word order will be examined by using elicited production tasks and forced-choice selection tasks. We predict that the participants will perform more accurately on the demonstratives. We further hope to gain insights into how much detection, mapping, and reassembly of the linguistic feature have progressed through the experiments.

Keywords: definiteness, English-Korean interlanguage, feature reassembly, overt and covert feature encoding

In the field of second language acquisition (SLA), a large body of research has investigated the acquisition of formal features (see Bley-Vroman, 2009; White, 2003). This line of research has primarily looked into whether adult second language learners have the capacity to acquire a feature in the second language (L2) whose counterpart does not exist in their first language (L1). One of the recent, central hypotheses on L2 feature acquisition is the Representational Deficit Hypothesis (RDH) (Hawkins and Chan, 1997). According to the RDH, L2 learners cannot acquire formal features (though limited to uninterpretable ones such as agreement markings) that exist in the L2 but not in their L1, because the features were not selected during L1 acquisition. However, feature acquisition might not all be described as a binary concept of success or failure. Lardiere (2008, 2009) claimed that L2 learners are capable of detecting the differences that exist between a certain formal feature in the L1 and L2, and the difficulty of acquiring the feature lies in correctly assembling the formal differences and determining proper environments for such items.

In this proposal, we use the Feature Reassembly approach to look into L2 learners’ acquisition of a formal feature, definiteness. We propose to investigate learners whose L1 marks definiteness in its morphology, but whose L2 expresses this feature in other ways: native speakers of English learning Korean. Definiteness is visibly indicated by definite articles in English, but Korean lacks this morphological exponent. However, Korean speakers will still
mark definiteness in several different ways such as using demonstratives and different word orders. This paper lays out a study that examines the (re)assembly required by L2-Korean learners where the formal feature in the L1 has to be readjusted to indirect expressions in the target language.

**Background**

**Feature Reassembly Hypothesis**

Many studies (e.g., Montrul & Slabakova, 2003; Slabakova, 2003 *inter alia*) have shown clear evidence for syntax-semantic mismatches in SLA, to suggest that language acquisition involves more complex processes than described by the advocates of the RDH. A syntax-semantics mismatch refers to an interlingual difference in the way some universal meanings (e.g., plurality, tense, definiteness) are expressed (Slabakova, 2008). Thus, L2 learners have to acquire the new ways in which such universal meanings are expressed in the target language (TL).

Based on such evidence, Lardiere (2008, 2009) noted the need to move beyond a general emphasis on the role of a feature’s existence in the L1 in explaining feature acquisition in the TL, and proposed the Feature Reassembly approach. This approach allows for a more detailed explanation of complex language systems in relation to features. Lardiere argued that a major source of difficulty in acquiring the L2 involves acquiring features that are expressed in the TL differently from in the L1. According to her model, L2 learners first need to identify similar patterns between the L1 and the TL in terms of the linguistic expression of certain features. Identification of similarities between the two languages leads learners to map the L1 feature set onto the morpholexical item of the TL. After this process of detection and mapping, learners may go through the next step of reassembling features and adjusting the association between the feature set and the TL item on the basis of the language input they have received.

An L1-English speaker’s acquisition of the demonstrative determiner *ku* in Korean is an example of this reassembly process. *Ku*, as a demonstrative, expresses definiteness in anaphoric contexts, so English sentences containing definiteness markers (e.g., *the* or *that*) in anaphoric noun phrases can be translated into Korean using *ku*, as in (1) and (2). Based on such evidence indicating that the two English items, *the* and *that*, can be lexicalized into one single expression, *ku*, in Korean, L1-English speakers may initially link the functions of *the* and *that* to those of *ku*.

(1) I read a book yesterday. *The* book was really interesting.
   Ne-ga eujea chek-ul ilgutsseo. *Ku* chek jungmal jaemisseuseo.

(2) Mike bought a new chair. *That* chair was comfortable.
   Mike-ga se euija-lul satta. *Ku* euija peonhaetta.

However, with more experience with the language, the learners may encounter some input against this one-to-one functional mapping and begin to realize that the association between *the*/*that* with *ku* does not always hold true. For instance, a definite article expressing uniqueness does not correspond to *ku* in Korean, as in (3) and (4). Given this type of input, L1-English learners of Korean can reassemble their direct link between definite article and the feature [definite] into the optional use of *ku*, depending on the specific meaning of definiteness (e.g., *ku*...
presented in anaphoric contexts but not when expressing unique existence). We will discuss definiteness more in detail in the next section.

(3) The sun is shining.
    Taeyang-i bitnanda.

(4) How is the weather?
    Nalssi eotteo?

Cho and Slabakova (2014) argued that somewhat different explanations are needed for semantic features (e.g., [number]) in contrast to the acquisition of syntactic features (e.g., [case]). It is possible that a particular meaning is lexicalized in some languages while not in other languages, regardless of whether the meaning can be expressed and communicated by speakers. Along with the optionality of lexical markedness, there is a limited correspondence between a syntactic form and a semantic feature (e.g., one semantic feature [definite] expressed through several different morpholexical items (the or that), or even at different levels of overtness (word order or demonstratives in some languages). This lack of consensus in expressing a given meaning creates difficulty in fully acquiring the expression of semantic features. Thus, we can predict that L2 learners will struggle with detecting and reassembling the expression of a semantic function, especially when these acquisition processes involve unequal numbers of morpholexical markers between the L1 and the TL.

Definiteness

Definiteness includes various semantic components, such as uniqueness, familiarity, and existence (Heim, 1991). The majority of studies have looked into the acquisition of this feature (i.e., article use) in English as the L2 by article-less L1 speakers such as Korean, Chinese, Japanese, or Russian (e.g., Ionin, Ko, & Wexler, 2004; Ko, Ionin, & Wexler, 2010; Liu & Gleason, 2002; Robertson, 2000, inter alia). The research has commonly shown L2 learners’ erroneous use and omission of articles (see García-Mayo & Hawkins, 2009, for an overview). Regarding infelicitous article use, specifically, researchers have observed overuse of the definite article the in indefinite contexts that requires a/an (e.g., Huebner, 1983; Thomas, 1989). A systematic analysis by Ionin et al. (2004) has further demonstrated that the two prevalent types of L2 learners’ article-related errors (i.e., overuse of the in indefinite contexts and overuse of a/an in definite contexts) can be attributed to the presence or absence of any of the two features in meaning: [specific] and [definite]. For example, in a definite context, L2 learners tended to overuse an indefinite article when [specific] is nonexistent (see Ionin et al., 2004, for a detailed explanation).

While several different explanations have been proposed for article-less L1 learners’ selection of English articles (Goad & White, 2008; Ionin et al., 2004; Robertson, 2000), the present study, adopting the Feature Reassembly approach as a framework, attempts to contribute to this line of research by focusing on a semantic feature [definite] and exploring its potential morphosyntactic representation and interpretation in an article-less language, Korean.

Indirect markings of definiteness. In discussing the feature [definite] in English, researchers have explored the use and functions of the definite article the and demonstrative determiner that, given the semantic similarity they share as markers expressing definiteness (more specifically, uniqueness) (e.g., Kang, 2005; Kim & Lakshmanan, 2009). Here, the use of
the and that has been regarded as the overt encoding of definiteness that involves lexicalization (Slabakova, 2009). With a more specific categorization, however, the definite article is a direct expression of the feature [definite], while the demonstrative determiner is an indirect expression of [definite], which has its primary semantic feature other than [definite] (Cho & Slabakova, 2014). According to Cho and Slabakova (2014), these expressions with different primary semantic features lead to somewhat inconsistent mapping, making the full acquisition of the feature more difficult.

For example, in an experimental study with L1-Chinese L2-English learners, Robertson (2000) discovered learners’ overuse of demonstratives and underuse of definite articles in contexts where the definite determiner fit better. Based on this finding, Robertson argued that L1 lexical transfer might have played an important role, leading article-less L1 speakers to use demonstratives to express the meaning associated with the definite article. In an attempt to expand the findings of Robertson (2000), Ionin et al. (2012) explored how L1-Korean L2-English learners distinguish between the and that by employing comprehension and production tasks. Their primary assumption was that, although almost identical in some contexts (sharing the meanings related to uniqueness; Roberts, 2002; Wolter, 2006), definite articles and demonstratives differ in the way of establishing uniqueness. That is, “while definite descriptions denote uniquely in the discourse, demonstrative descriptions denote uniquely relative to the immediately salient context” through explicit demonstration (Ionin et al., 2012, p. 75). For example, in (5), there are two women described in the discourse, so the use of the woman is infelicitous (from Wolter, 2006), while in (6) one woman was uniquely identified in the discourse, making it the better option to use the woman instead of that woman (from Roberts, 2002).

(5) A woman entered from stage left. Another woman entered from stage right. That/this/*the woman was carrying a basket of flowers.
(6) The curtain rose. A woman and a man came onto the stage. Then, the/*that woman started singing and dancing.

The findings of Ionin et al. (2012) showed that L1-Korean learners distinguished between definite articles and demonstratives to some extent, but their capability of this distinction was less accurate than that of the native English speakers’. The researchers have also found that low-level L1-Korean learners regarded definite articles and demonstratives as interchangeable. What we can infer from their findings is that L2 learners may have a great difficulty in acquiring a new target morpholexical item (here, the definite article) that does not exist in the L1 (i.e., learning direction from absence to presence). Then, the question we pose is: What about the acquisition of morpholexical items for [definite] in an article-less language (i.e., opposite learning direction, from presence to absence)? To what extent would L1-English learners experience difficulty in acquiring how [definite] feature is expressed in an article-less language?

**Overt encoding of definiteness: Demonstrative determiner in Korean.** Korean has three demonstrative determiners: i ‘this’ (a proximal form), cheo ‘that over there’ (a distal form) and ku ‘that’ (a neutral form; close to hearer or known to both speaker and hearer) (Sohn, 1999, p. 210, as cited in Ionin, Baek, Kim, Ko, & Wexler, 2012). Korean demonstratives behave like those of English and all of them can be used in deictic contexts (Chang, 1996; Ionin et al., 2012). Whereas cheo ‘that over there’ can be used only in deictic contexts, i ‘this’ and ku ‘that’ can be
used in both deictic and anaphoric contexts. In this paper, we focus on the determiner *ku* specifically because it has some of the functions associated with the English definite determiner. While its main characteristic is that of a demonstrative determiner, it can behave like the English definite article the in non-anaphoric contexts as can be seen in examples (1) and (2) above.

Both *the* and *that*, when used in anaphoric contexts as in the examples above, are translated as *ku* in Korean. As Kim and Lakshmanan (2009) argue, such input can lead L1-Korean L2-English learners (at least at the initial stage) to equate both *the* and *that* with *ku*. The use of articles has long been posed as a challenge for speakers of article-less languages in learning English (see, among many others, Ionin & Montrul, 2010; Ionin et al., 2012 for L1 Korean; Butler, 2002; Hawkins et al., 2006 for L1 Japanese; Lardiere, 2008; Robertson, 2000; White, 2008 for L1 Chinese). This is not only because their L1 lacks articles but because contexts which are compatible with *ku* in Korean may correspond only with *the*, only with *that*, or with both in English.\(^1\) While such issues related to L2-English articles and (overuse of) English demonstrative *that* have been robustly investigated in the field of SLA, research in the opposite direction is scarce. In this study we explore if L1-English L2-Korean learners exhibit the same phenomenon in the reverse direction: using *ku* in environments where they would use *the*, but *that* doesn’t work. (7) is an example of where an assumed ‘unique being’ (C. Lee, 1994, p. 326), (‘the owner’) appears with an anaphoric noun phrase (‘this store’) that has already been talked about as an antecedent. This kind of definiteness is realized as a definite article in English but as a zero definite element in Korean (C. Lee, 1994).

(7) (*ku) jooin-ul molla.
(*that) owner-ACC don’t know
‘I don’t know the owner (of this store).’

In this case, L1-English L2-Korean learners whose L1 overtly marks the feature [definite] have to reassemble their L1 morphemes into zero determiner, or modify the noun which is unique with other means such as a relative clause. Definiteness is often expressed through context and discourse, therefore the definiteness should be understood with the noun phrase alone. Another grammatical component that helps speakers and listeners identify the definite entity in Korean is the use of relative clause, which is a pre-modifier of the following head of the noun phrase (C. Lee, 1994). However, we focus on whether L1-English learners transfer their L1 morpheme *the* into *ku*, and therefore stimuli are constructed to avoid the use of relative clause in order to investigate learners’ (in)correct use of *ku*.

Covert encoding of definiteness in Korean: Word order. In addition to the overt encoding of [definite] with morpholexical expressions, some languages have covert ways to express this feature that can be achieved without additional morpholexical items (Cho & Slabakova, 2014). One way of covert [definite] marking is to scramble a default word order. The main function of word order in English is to identify grammatical functions in a sentence. With no morphology marking the function of constituents, the order in which constituents appear would determine the meaning of a sentence. In so-called free word order languages such as German, Hindi, Japanese and Korean, constituents can appear in a variety of surface orders without changing the core meaning of the sentence (E. Lee, 2007). However, the canonical order

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\(^{1}\) Though ‘uniqueness’ is an important characteristic which differentiates *the* from *that* in English, we will not discuss it in this paper since English is not the target language here (see Ionin et al., 2012 for more information).
for Korean is SOV and there is a preferred constituent order depending on the information structure, such as topic and focus. Topic and focus deal with given/known and new/unknown information (Chang, 1996). In Korean, topic noun phrases appear in the sentence initial position and therefore can result in the OSV word order if the object of the sentence is the given/known information (Chang, 1996; C. Lee, 1994; Suh, 2005). In other words, word order can encode (in)definiteness in a sentence. Consider the example (8) and (9):

(8) Abba-ga gong-ul chat-da
    Dad-NOM ball-ACC kick-PAST
    ‘Dad kicked a ball.’

(9) gong-ul appa-ga chat-da
    ball-ACC Dad-NOM kick-PAST
    ‘Dad kicked the ball.’

The object gong ‘ball’ endows itself a definite interpretation in (9), while in canonical order (i.e., SOV as in (8)) gives the object an indefinite interpretation; hence the English translation ‘a ball’ in (8) and ‘the ball’ in (9). In fact, the OSV sentence would sound unnatural if there is no context and would be most natural if it was uttered as a response to a question such as: “Who kicked the ball?”

During the course of acquisition, L1-English speakers who have a fixed word order and mark definiteness overtly with articles would have to realize that different word orders have different informational structures. They have to learn that, in general, the (in)definite interpretation of nominals in Korean is determined through word order and the object will be interpreted as definite in the OSV order.

The Present Study

Cho and Slabakova (2014) predicted that it would be more difficult to acquire the feature [definite] when it is coded covertly compared to when coded overtly, primarily due to the inconsistent input of the former. However, to our knowledge, empirical research on this topic is scarce in the field of SLA. In this study, we examine how L1-English learners distinctly interpret and produce the feature [definite] that has been coded overtly (demonstrative determiners) and covertly (word order change) in Korean. In particular, we approach the acquisition of this feature through Feature Reassembly Hypothesis which will help us map out the (re)assembly required by L2 Korean learners where the [definite] morphological exponent has to be readjusted to the indirect expressions in the target language.

Methodology

Participants

The participants will include four groups: a control group of 30 native speakers of Korean, 60 L1-English L2-Korean learners broken down into low proficiency level (N=20), intermediate level (N=20), and advanced level (N=20). The learners will be recruited from six different university-associated Korean language institutes located in Seoul, South Korea. All the Korean language institutes offer courses for six levels, from 1 to 6, and the levels are generally compatible across different institutions to meet the required elements of the Test of Proficiency in Korean (TOPIK). The low proficiency group will be recruited from level 2 and 3 classes, the
intermediate group from level 4, and the advanced group from level 5 and 6. The L2 learners will be adult learners who have started learning Korean after age 14. Heritage-learners of Korean will be excluded. In addition, we will collect basic demographic information such as age, gender, foreign language learning experiences, length of Korean language study, and length of residence in Korea.

**Materials and Procedure**

Two different types of task, an elicited production task and a forced-choice selection task will be tested on two encoding types of definiteness (i.e., use of demonstrative and word order), respectively. Each task will consist of 12 items (12 items x 2 task types x 2 encoding types = 48 items) and each item will present a context. Both elicited and forced-choice selection tasks for demonstrative will have six items in which using the demonstrative ku would be appropriate (examples (10a) and (11a)), and another six where it should not be used (examples (10b) and (11b)). For word order tasks, six items will present the object of the test sentence as definite (known, examples ((12a) and (13a)) and the other six as indefinite (unknown, examples (12b) and (13b)). The items will be in Korean, though the prompts will feature English translations to prevent possible misunderstanding of the instruction. The order of encoding types will be counterbalanced for the participants, but the elicited production tasks will always be conducted before the forced-choice tasks to prevent the participants from finding out what they are being tested on.

The elicited production task will provide a list of words and ask the participants to choose relevant words and use them to form a full sentence.² By doing so, the task will be structured and controlled for the participants to use or not use the target element ku and make them focus on selecting the right words and providing appropriate case markers.

(10) Elicited production task for demonstrative

a. Anaphoric, ku ‘that’ should be selected (n = 6)

Kyle: What are you reading?
Hanna: *Kafka on the Shore*. Have you read it?
Kyle: No, but I want to read it.

Question: What does Kyle think about the book?

Prompt: Please create a sentence to answer the question. Selecting the relevant words from the box and only use those words. (Do not use any words that are not in the box).

<table>
<thead>
<tr>
<th>책(book), 재미있다(to be interesting), 쓰다(to write), 카일(Kyle), 그(that), 읽고 싶다(to want to read)</th>
</tr>
</thead>
</table>
| Kyle-NOM ku book-ACC want to read.
('Kyle wants to read that/the book.')

² The prompt includes unrelated words because if ‘that’ is not provided, the participants might not use it at all, but if only ‘that’ is optional, that could give away the target is the use of ‘that’.
b. Non-anaphoric, [-definite], *ku* ‘that’ should be rejected  
   
   June: Can you bring my bag when you come here?  
   Mom: Sure, where is it?  
   June: It’s on the table next to my desk.  
   
   Question: Where is June’s bag?  
   
   Prompt: Please create a sentence to answer the question. Selecting the relevant words from the box and only use those words. (Do not use any words that are not in the box).

| 준의 가방 (June's bag), 탁자 (table), 그 (that), 있다 (to be), 교실 (classroom), 위 (on) |
|June’s bag-NOM table on be. |('June’s bag is on the table.') |

Having the determiner *ku* before ‘book’ is preferred in the response to the question, because the book has been stated in the question (10a). On the other hand, *ku* should not be used in (10b) because the table has not been mentioned in the question. However, due to the established familiarity from the provided context, the response in English would select *the* to refer to the table and this may cause the participants to use *ku* when they should not.

(11) Forced-choice selection task for demonstrative

a. Anaphoric, *ku* ‘that’ should be selected  
   
   Dan: What did you do during the weekend?  
   Andy: I like Star Wars so much that I watched all four of them again.  
   
   Dan asked:  
   
   a) 진짜? 그 영화 얼마나 자주 봐?  
   (‘Really? How often do you watch the/that movie?’)  
   
   b) 진짜? 영화 얼마나 자주 봐?  
   (‘Really? How often do you watch movie?’)

b. Non-anaphoric, [-definite], *ku* ‘that’ should be rejected  
   
   Sunny: What’s wrong?  
   Noah: My computer doesn’t work. I can’t see anything.  
   
   Sunny asked:  
   
   a) 음.. 모니터 켰어?  
   (‘Hmm.. did you turn on monitor?’)  
   
   b) 음.. 그 모니터 켰어?  
   (‘Hmm.. did you turn on the monitor?’)
For (11b), it is assumed that there will be a monitor where there is a computer and therefore an English sentence will have the even though the monitor has never been mentioned in the exchanges leading up to the question. In Korean, an assumed unique being will receive a zero definite unless it has been mentioned before. Therefore, ku should not be used with monitor.

The elicited production word order task will ask the participants to use all the words provided. Because the known information is likely to be omitted in the response, it is necessary to require the participants to use all the words to examine what word order they use. The words will be scrambled for each item to prevent the participants from being influenced by the order they see.

Following are the tasks for word order. In (12a) and (13a), the questions provide the subjects, Dad and Sam, and therefore they will be known information and [+definite] in the response. On the other hand, the objects are focused and indefinite. Therefore, the given information, subject will come first as realized in SOV word order.

(12) Elicited production task for word order

a. Object as focus, indefinite: Subject in sentence initial position (SOV) (n = 6)

Ina was very hungry on her way back home and wondered what her husband was preparing for dinner. So she texted her son: What is Dad cooking tonight?

Prompt: Please use all of the words in the box to create your response.

The text said:

요리하다(to cook), 아빠(Dad), 불고기(Bulgogi)

Dad-NOM Bulgogi-ACC cook.PRES.PROG
(‘Dad is cooking Bulgogi’)

b. Object as [+definite], known: OSV (n = 6)

Eugene came home and saw a sandwich on the dining table. So he asked his daughter: Who made sandwich?

Daughter said:

샌드위치(sandwich), 만들다(to make), 엄마(Mom)

Sandwich-ACC Mom-NOM make.PAST
(‘Mom made the sandwich’)

(13) Forced-choice task for word order

a. Object as focus, indefinite: SOV word order (n = 6)

Anne went to buy a sweater for her brother but didn’t know which color he liked. So she texted her Mom: What color does Sam like?
a) Sam-NOM green-ACC likes.
   (‘Sam likes green’)

b) Green-ACC Sam-NOM likes.
   (‘Sam likes green’)

c) All of the above

b. Object as [+definite]: OSV (n = 6)
   Joe left an apple on the dining table in the morning but it was gone when he came back home. So he asked his wife: Who ate (the) apple?

   a) Lyn-NOM apple-ACC eat.PAST.
      (‘Lyn ate the apple’)

   b) Apple-ACC Lyn-NOM eat.PAST.
      (‘Lyn ate the apple’)

   c) All of the above

In context (12b) and (13b), the subjects ‘who’ are unknown indefinite, and objects are given and definite. Thus, the preferred word order is OSV. If participants select ‘All of the above’ as the answer, it would indicate that they have not acquired the covert encoding of definiteness through word order.

**Statistical analysis**

To examine the extent to which L1-English learners have acquired the use of demonstratives and word order, we will compute a two-way ANOVA with participant group (4) and encoding type (2) as two predictor variables, separately for each task (forced choice and elicited production). This analysis will present results related to different levels of the acquisition of indirect definite (demonstratives) and covert definite (word order) descriptions as well as those related to the effect of participant group (nativeness and proficiency) on the degree of acquisition. The two-way ANOVA will be followed by post-hoc analyses to pinpoint the location of significance among participant groups. We will also run a series of paired t-tests with task type as a predictor variable in order to measure the effect of task type on L1-English learners’ performance.

As described above, the majority of this line of SLA research has focused on the direct expression and overt encoding of the feature [definite]. Thus, our attempt to answer the present research questions could help further advance our understanding of how English-L1 learners acquire syntactic and lexical representations intended to express definiteness in an article-less language.

**Predicted Results**

We predict that the learners will perform more accurately on the demonstrative determiners, the overtly encoded version of [definite] feature than on the word order, which is covert. As Ionin et al. (2012) discussed, learners may perform differently in an elicited production task and in a comprehension task, and our prediction in the present study is that the participants will perform better in comprehension tasks than production tasks, with an increasing
level of acquisition along their proficiency levels. However, Cho and Slabakova (2014) have not found a linear relationship between the proficiency level and the acquisition of Russian word order with their felicity judgment tasks. We hope to obtain less obscure and more explainable findings with the elicitation and forced-choice tasks.

Further, we expect the results of this study will help understand the developmental patterns of a formal feature in the language learners’ minds. From the Feature Reassembly point of view, in particular, we may gain insights into how much detection, mapping, and reassembly of the linguistic feature expressions have progressed.

Further expansion of the research

The current study proposes only one L1 language group; however, it would provide more insight into the Feature Reassembly Hypothesis and the cline of learning difficulty proposed by Cho and Slabakova (2014) if we include different language groups such as Japanese and Chinese as L1s. For instance, Cho and Slabakova state that the acquisition of the functional feature [definite] which is realized through context (e.g., discourse and word order) in the TL will be relatively easier for learners who have an overt morphological exponent of the feature (e.g., English) than for learners whose L1 (such as Japanese or Chinese) do not have the morphological means to encode [definite] (see Cho & Slabakova, 2014, pp. 165-166). Including different L1 groups that represent different types of learning situations (described by Slabakova (2009) and Cho and Slabakova (2014) as the cline of difficulty in functional feature acquisition) and also have different means to express the target feature, would further add depth and breadth in understanding the mapping required and executed by L2 learners.

References


The Perception-Production Link in L2 Phonology

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Abstract

In a first or second language (L2), it is thought that in order to accurately produce a sound, one must be able to accurately distinguish that same sound in reception. This intuitive connection, called the perception-production link, also enjoys theoretical support from Flege’s (1995) Speech Learning Model and empirical support from a considerable number of experimental studies. However, reports of perception without production and production without perception present a challenge to the perception-production link. In this brief review, the perception-production link is explained and evidence supporting and challenging the link is summarized. Additionally, empirical research on the link is critically reviewed to highlight issues with research design and interpretation. Finally, the perception-production link’s current status in L2 research is discussed and directions for future research are presented.

Keywords: L2 phonology, L2 pronunciation, perception, production

In a first (L1) or second language (L2), the idea that one must first be able to perceive a sound in order to produce it is rather intuitive. This idea is referred to as the perception-production link, and plays an important role in the development of L2 oral production. The exact origin of the term is unknown to this author, but the idea enjoys a long history in the study of L2 phonology, dating back to at least 1934 (Polivanov, as cited in Cardoso, 2011). Infants have a well-known ability for categorizing sounds of any language regardless of prior experience (Werker & Tees, 2002), making it easy to take for granted the importance of perception in the development of L1 production. In the L2, however, perception is not a given. Perhaps the most well-known example of this is the difficulty L1 Japanese learners of English have in perceiving the English /r/-/l/ distinction (e.g., Aoyama, Flege, Guion, Akahane-Yamada, & Yamada, 2004; Bradlow, Akahane-Yamada, Pisoni, & Tokhura, 1997; Sheldon & Strange, 1982; Strange & Dittman, 1984). Concomitantly, L1 Japanese speakers famously have difficulty producing it, too (Avery & Ehrlich, 1992).

Before continuing, the two elements of the perception-production link warrant more detailed explication. Perception involves the recognition of sound as belonging to a phonological category during the processing of aural input. Importantly, in order to recognize a feature appropriately, the existence of a unique category for that feature in a learner’s underlying phonological system is required. Production refers to using the oral-articulatory system to emit an auditory signal carrying a linguistically (phonologically)-encoded message (or more simply, speaking). The order of the two elements also carries important meaning: in the perception-production link, perception should precede production; perception of a feature is requisite for production. Consistent, accurate production preceding or completely independent of perception
would present a challenge to the link (Chan, 2014). However, perception without production would not necessarily be considered a rebuttal to the link, though it may be seen as a limit on its strength.

Although the perception-production link is both intuitively attractive and well-situated in popular theories of speech production (e.g., Perceptual Assimilation Model, Best & Tyler, 2007; Speech Learning Model, Flege, 1995), it is not without limitations or reasonable doubts. Baker and Trofimovich (2006) point out that perception and production are controlled by different mechanisms, and in that sense, the link could actually be considered counterintuitive.

Review of Research on the Perception-Production Link

This section reviews the support and challenges to the perception-production link in L2 phonology. A number of empirical studies are discussed and referred to, and to facilitate comparisons among them, these studies are summarized in Table 1. Table 1 presents the L1s, L2s (with the parenthetical Status to indicate the context/environment of acquisition), target features, and findings relevant to the perception-production link for each study. After the reviews of support and challenges, methodological issues present in the empirical studies are discussed. A summary then ties together the three preceding sections.

Support for the Perception-Production Link

Research has yielded strong support for the existence of the perception-production link. Work done in support of Flege’s (1995) Speech Learning Model (SLM) has been particularly useful in providing a foundation for the link. In Flege’s SLM, it is predicted that learners only readily create new phonetic categories when an L2 sound is sufficiently different from an existing L1 category. Without a unique category used to perceive the L2 sound, production of the L2 sound is also thought not to occur. Investigating Japanese learners, Aoyama et al. (2004) examined the difference in the acquisition of English /r/ and /l/. Compared to Japanese /r/, English /r/ is more distant than /l/ (which is close to Japanese /r/), which leads to the prediction that Japanese learners of English should be able to create a new category for English /r/ more easily than /l/. Aoyama et al. did indeed find this to be the case, with evidence of greater perception improvements over time, and importantly, improvements in production, offering evidence of the perception-production link.

Baker and Trofimovich (2006) reported similar findings in their investigation of L1 Korean learners of English, where they claimed perception was clearly linked to and a necessary condition for production. Flege, MacKay, and Meador (1999) extended these findings for the perception and production of English vowels by L1 Italian speakers, and further offered that the degree of perceptual accuracy is linked to the degree of production accuracy. These findings related to English vowels were corroborated by Jia, Strange, Wu, Collado, and Guan (2006) in a study of of L1 Mandarin speakers of English in the US. Jia et al. found that higher degrees of accuracy in perception were reflected in production, offering confirmatory evidence for Flege et al. (1999). Additionally, by considering length of residence in the design of the study, Jia and colleagues were able to observe temporal lags in production accuracy following increases in perception accuracy. While a considerable portion of research in this area focuses on segmental perception and production, evidence has also been found for the perception-production link for syllable structure (Cardoso, 2007, 2011). Cardoso found that by intermediate levels of English proficiency, Brazilian learners were better able to discriminate differences in coda structure than
Table 1
Summary of Selected Studies Addressing the Perception-Production Link

<table>
<thead>
<tr>
<th>Study</th>
<th>Participant L1(s)</th>
<th>Target Language (Status)</th>
<th>Target Feature(s)*</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aoyama et al. (2004)</td>
<td>Japanese</td>
<td>English (FL)</td>
<td>/r, l/</td>
<td>Perception improvement followed by production improvement.</td>
</tr>
<tr>
<td>Baker &amp; Trofimovich</td>
<td>Korean</td>
<td>English (SL)</td>
<td>/i, i, u, y, ø, ø, ε/</td>
<td>Perception exceeded production, moderated by proficiency and age.</td>
</tr>
<tr>
<td>Bradlow et al. (1999)</td>
<td>Japanese</td>
<td>English (FL)</td>
<td>/r, l/</td>
<td>Perception improved after perception training; production also improved.</td>
</tr>
<tr>
<td>Chan (2014)</td>
<td>Chinese (Cantonese)</td>
<td>English (SL)</td>
<td>η, 1 (final), r/, i:, u/, õ/, ê/</td>
<td>Successful perception, major production difficulty for some consonants (e.g., /ð/). Lack of association between perception and production of other sounds.</td>
</tr>
<tr>
<td>Darcy &amp; Kruger (2012)</td>
<td>Turkish</td>
<td>German (B)</td>
<td>/i, i, e, ê, æ, a/</td>
<td>Production indistinguishable from monolingual peers, perception categories different.</td>
</tr>
<tr>
<td>Flege et al. (1999)</td>
<td>Italian</td>
<td>English (SL, B)</td>
<td>/i, i, e, ê, æ, U, o, ø, õ/</td>
<td>Perception accuracy linked to production accuracy, age effect found.</td>
</tr>
<tr>
<td>Jia et al. (2006)</td>
<td>Chinese (Mandarin)</td>
<td>English (FL, SL)</td>
<td>/i, i, e, ê, æ, æ, o, ø, u/</td>
<td>Perception accuracy linked to production accuracy, age effect found. Production lags evident.</td>
</tr>
<tr>
<td>Motohashi-Saigo &amp;</td>
<td>English</td>
<td>Japanese (FL)</td>
<td>geminates /t/, /k/, /s/</td>
<td>Perception improved after perception training; production also improved.</td>
</tr>
<tr>
<td>Hardison (2009)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oh et al. (2003)</td>
<td>English</td>
<td>Korean (HL/FL)</td>
<td>/t, tʰ, t'/ (lax, aspirated, tense)</td>
<td>HL &gt; FL in perception, near NS. HL w/ childhood speaking had better production than HL w/o childhood speaking, but not near NS for all features.</td>
</tr>
<tr>
<td>Sheldon &amp; Strange</td>
<td>Japanese</td>
<td>English (FL)</td>
<td>/r, l/</td>
<td>Production more accurate than perception.</td>
</tr>
<tr>
<td>Tsukada et al. (2005)</td>
<td>Korean</td>
<td>English (SL)</td>
<td>/i, i, e, ê, æ, æ, ø/</td>
<td>Production exceeded reception for children, but not adults. Language use a factor.</td>
</tr>
</tbody>
</table>

*IPA symbols used in primary studies retained.

produce them. At a more advanced level, coda production ability was similar to perception ability.

Pronunciation instruction (PI) research has also borne evidence in favor of the perception-production link. Inclusion of perception activities in PI has demonstrated favorable
results in terms of production (Kissling, 2014; Okuno & Hardison, in press). One helpful feature of PI studies in relation to the perception-production link is that they document changes over time, allowing for a causal interpretation of results, shedding more light on L2 phonologic acquisition than one-shot studies comparing perception and production accuracy. Perhaps the most powerful evidence of the perception-production link comes from Bradlow et al. (1997) and Motohashi-Saigo and Hardison (2009). Bradlow et al. provided only perceptual training to Japanese learners in English /r/ and /l/ distinction, and saw improvements in the production of those phonemes. Motohashi-Saigo and Hardison (2009) took a similar approach with L1 English learners of Japanese. The learners were only provided with perception training related to geminates (/t,k,s/), which involved listening to audio stimuli and choosing among minimal-triplets. After training, the learners were found to have improved not only their perception of singleton-geminate contrasts, but also their production of geminates according to native-speaker judges. These findings support the primacy and necessity of perception in the perception-production link, and even further suggest that perception alone may unlock ‘potential’ L2 phonologic features. That is, if a particular feature is not being produced in the L2, but exists (or components of it exist) elsewhere in a learner’s inventory, perception of the feature may be sufficient for production. In the case of Motohashi-Saigo and Hardison’s (2009) L1 English learners of Japanese, English consonant gemination (e.g., *midday*), though rarely a contrast, could rapidly be accessed for production in L2 Japanese once the perceptual category was established.

**Challenges to the Perception-Production Link**

Although the perception-production link is supported in mainstream theories of phonologic acquisition and possesses potentially powerful effects when applied in PI, it is not without challenges: evidence of perception without production, and evidence of production without (or exceeding) perception. The first challenge, perception without production, greatly limits the strength of the link. Derwing and Munro (2015) point out that it is very easy for L1 English speakers to perceive the difference between Spanish’s trill /ɾ/ and tap /t/, but they often struggle, in some cases perpetually, to produce the distinction. Keep in mind that the trill /ɾ/ is unlike anything in the English phonetic inventory, which suggests ease in new category formation under the SLM. Indeed, the persistent difficulty of this feature has been attested to recently by Lord and Harrington (2013), who found little improvement in producing the phonemes after production-focused learning activities for Spanish learners. Kim and Park (1995) found that L1 English learners of Korean had major difficulties producing /l-/ contrasts accurately despite successful perception. Similarly, in a study of L1 Cantonese learners of English, Chan (2014) found that learners had accurate perception of the English /ð/ but generally failed to produce it, and characterized this finding as a significant challenge to the perception-production link.

Some research involving heritage learners and bilinguals (childhood age-of-onset L2 speakers) questions Flege et al.’s (1999) stronger assertion related to the degree of perceptual accuracy and production. In the case of Korean heritage learners enrolled in 1st-year university Korean courses, Oh, Jun, Knightly, and Au (2003) found that heritage learners had advantages over non-heritage learners in terms of consonant phoneme perception. Interestingly, whether the heritage learners spoke the language as children or only heard it had little effect on perception; both types of heritage learners approached native speaker accuracy rates for perceptual accuracy (lagging behind only about 10%). However, it was only the heritage learners who had experience
speaking the language as children who approached native speaker norms for two types of consonant phoneme productions (lax and aspirated), while all groups (including non-heritage learners) struggled with production of tense consonants- a feature absent in English. This may suggest that accurate production requires something more than accurate perception.

The second challenge, production without perception, is less attested to. Sheldon and Strange (1982) found that for a group of Japanese learners of English, production of /r/ and /l/ was more accurate than perception. It is important to note, though, that the group of “good” Japanese English learners in the study only had a production error rate of 1% and a perception error rate of 10%, which could suggest something of a ceiling effect: their L2 phonological perception will only approach native-like accuracy, but perhaps production can exceed that perception limit (by certain measures; accuracy was judged by native listeners but the acoustic qualities or accentedness of speech were not considered). Additionally, because the study was not developmental, the results do not answer the question of which came first for the learners. Outside of Sheldon and Strange’s (1982) widely-cited study, relatively little evidence exists supporting production without perception as a frequent phenomenon.

Bilinguals who learn an L2 early (typically before 7 years of age) and sustain use of the L2 are often found to be indistinguishable from L1 speakers in production. As such, one might expect that they would also mirror L1 speakers in perception. However, Darcy and Kruger (2012) found that L1 Turkish/L2 German child bilinguals, despite being indistinguishable from L1 German peers in production, categorized contrasts of some German features differently than their monolingual peers. They suggest that it may be possible for bilinguals to form new L2 categories that are distinct from the L1 at the same time differ from monolingual norms. Tsukada, Birdsong, Bialystok, Mack, Sung, and Flege (2005) also reported similar findings for L1 Korean/L2 English child bilinguals. In their discussion, the authors speculated that L2 production might also require L2 production experience, in addition to perception, which would explain the superior production of some child bilinguals who reported high levels of L2 use compared to adult-aged arrivals with similar lengths of residence.

**Methodological Issues**

Restrictive tasks, incomparability between perception and production measures, and/or small sample sizes are issues presenting threats to validity in many studies involving the perception-production link.

In most studies mentioned so far, tasks used to measure perception and production are highly restrictive. Perception tasks largely mostly involve minimal pair/triplet discrimination (e.g., AXB tasks), using either words or pictures as choices. These tasks allow researchers to focus on particular phonemes and control for potential moderating variables, but may be susceptible to priming or Hawthorne effects. Production tasks are also often limited to single words, though short sentence templates are also used (e.g., Oh et al., 2003, who used a Korean equivalent of “This is a ____.”). PI research, perhaps more than other areas of L2 pronunciation research, tends to use tasks with longer or more spontaneous output and a recent meta-analysis of PI studies revealed that effect sizes yielded from output measures tend to be lower for these sorts of tasks (Lee, Jang, & Plonsky, 2014). This finding may be partially attributable to the demands of real-time speech production preventing careful monitoring of phonological production, and casts some doubt on how much productions elicited in discrete tasks reflect acquisition rather than careful monitoring aided by explicit knowledge.
Another issue with perception and production measures is their comparability. A perception accuracy rate based on single-word discrimination is difficult to compare with production accuracy rates based on human transcriptions or judgments of learner production. For example, instruments for investigating perception accuracy typically involve forced-choice (i.e., choosing what was heard among only 2-3 options), which introduces chance and/or guessing as potential confounds (Cardoso, 2011). Accuracy in production, on the other hand, may be determined by transcriptions or classifications from a trained expert; these are less susceptible to random chance and at the same time success may have more stringent criteria. Acoustic measures of production (which are compared to NS norms) also have issues of comparability, as they do not account for a binary expression of correct/incorrect in a way comparable to perception tasks. Incongruency between perception and production tasks in terms of difficulty, cognitive demands, and rigor also create challenge in relating outcomes, with production tasks generally thought to impose a greater burden on subjects (Flege, 1999; Jia et al., 2006; Tsukada et al., 2005).

Last is the issue of sample size. In Sheldon and Strange (1982), which presented one of the strongest and most well-known challenges to the perception-production link, the findings were based on a sample of six Japanese L2 English learners compared to four NSs. While it appears that Sheldon and Strange analyzed their data appropriately (i.e., relying mainly on descriptive statistics and limited parametric tests), the small sample size should make for highly-cautious interpretation and extrapolation of the findings. However, the article has been cited over 300 times according to Google Scholar (scholar.google.com, accessed 12/9/2015), a non-trivial number even in respect to the article’s age. Fortunately, the sample size issue has been ameliorated over time, with contemporary studies related to the perception-production link including respectable sample sizes (e.g., N=72 in Flege, MacKay, & Meador, 1999, N=77 in Jia et al., 2006; N=72 in Tsukuda et al., 2004). However, more modest samples are sometimes divided into subgroups for comparisons, and these subgroups are often not much larger than those found in studies from earlier decades. For example, Oh et al. (2002) compared 15 childhood speakers and 6 childhood hearers to 12 native speakers of Korean, sample sizes that make findings from the otherwise well-crafted research somewhat difficult to extend beyond the study.

Summary

The perception-production link appears to have strong foundations in empirical research. Some longitudinal studies and a number of PI studies have shown more than just a link between perception and production. Longitudinal studies have demonstrated orders of perception preceding production. In some cases of PI, sufficient development of perception appears to rapidly unlock appropriate production without any particular production training required. Furthermore, a link between the degree of accuracy in perception and production has also been proposed based on empirical findings. In sum, this positive evidence has led to what could be characterized as a strong link between perception and production: phonological perception must precede production, development of perception may facilitate rapid emergence of production for some features, and the degree of perceptual accuracy has a strong influence on accuracy in production.

However, commonly attested accounts of pronunciation difficulties and research on heritage learners and child bilinguals present challenges to the perception-production link,
especially its stronger characterizations. Persistent difficulties in certain phoneme productions despite easy perception delimits the influence of perception in the link. In the case of some complex and/or linguistically rare features, there may simply be an age constraint on the ability to learn articulations (Flege, 1999). The variation of production in different types of heritage learners, all of whom approach NSs in measures of perception, also suggest that something more than just perception (perhaps sufficient L2 use) may be necessary for target-like production. Flege (1991) noted that learners need time to develop accurate production of features that have been established in perception, which might be a satisfactory explanation for early heritage learners but less satisfactory for heritage learners with more experience. Additionally, child bilinguals have been shown to be indistinguishable from NSs in their L2 production, yet appear to form phonetic categories differently than monolinguals. Together, these findings arguably present some challenges, or at least areas requiring further research, for the perception-production link.

Finally, research issues related to the type of experimental tasks, comparability between perception and production measures, and sample sizes pose some challenges for research related to the perception-production link. The first two issues pervade most research on the topic, while the latter issue has diminished over time, though still surfaces in subgroup comparisons of more contemporary research.

**Current Status**

The current status of the perception-production link is one of general acceptance and strong empirical support. While it is no longer the overt focus of many studies, it is likely to appear in the theoretical background and interpretations of studies involving the acquisition of phonology or examining the influence of other factors (e.g., age of onset) on perception and/or production. This is perhaps due to it being broadly accepted as a general principal of phonological acquisition compatible with the popular SLM. Accordingly, the perception-production link is featured with some importance in a recent volume by two major figures in L2 pronunciation: Derwing and Munro’s (2015) *Pronunciation Fundamentals: Evidence-based Perspectives for L2 Teaching and Research*. A chapter by Hardison (2012) in *The Routledge Handbook of Second Language Acquisition* on L2 speech perception also allots space to discussion of the link. Furthermore, PI studies frequently incorporate perception activities in the instructional treatment and sometimes include perception measures, and popular guides to teaching pronunciation feature perception as an important step prior to learner production (e.g., Celce-Murcia, Brown, Goodwin, and Griner, 2010).

Though the link is featured in the important works described previously, it is also not uniquely indexed in other major comprehensive accounts of second language acquisition (SLA) or applied linguistics such as Gass, Behney, and Plonsky’s (2013) volume on *Second Language Acquisition* or *The Encyclopedia of Applied Linguistics* (Chapelle (Ed.), 2013). Similarly, Kormos’ (2006) volume on speech production in SLA, though primarily a psycholinguistic account of production, does not mention the perception-production link and instead emphasizes L1 influences and compensatory strategies (e.g., reduction, substitution) to explain L2 phonetic realizations. In addition to L1 influences, factors such as age of acquisition and input (quantity and quality) tend to be more prominent in accounts of L2 phonology. It is perhaps appropriate to characterize the current status of the perception-production link as well-established in L2 pronunciation literature and research but taken for granted in SLA more generally.
Future Research

Previously described elements of the perception-production link and general challenges to the link all present empirical questions. Building a more focused body of evidence around the link in L2 phonology would serve to more robustly delineate its effects and may yield useful implications for pedagogy. Within such perception-production focused studies, research designs including more frequent observations over time would yield a more thorough understanding of the relationship between perception and production, especially when considering that for many features learners require time to develop articulation after perception (Flege, 1991). Similarly, perception accuracy exceeding production accuracy at one point in time can only provide indirect support for the link; more time points are necessary to investigate the inherently dynamic predictions of the link.

Additionally, attempts to confirm existing findings in more naturalistic context would be informative. For example, perception could be measured in the context of listening to short narratives or conversations, and production could be measured in extended productions such as picture descriptions or interviews. While this sort of design would require very careful considerations to limit interference from outside of a learner’s underlying phonological inventory in relation to the variables of interest (non-words or proper nouns may be one way of achieving this), it could at the same time potentially mitigate the incomparability of conventional perception and production measures. More specifically, accurate perception of individual features while listening for comprehension may be more comparable to the burden of articulating speech sounds in real-time during meaningful communication than commonly used single-word perception/production tasks.

Finally, interesting findings that present challenges to the perception-production link have come from samples outside of the typical college-aged instructed L2 learners (e.g., Darcy & Kruger, 2012; Oh et al., 2003, Tsukuda et al., 2005). Continued research involving child bilinguals or heritage learners could provide unique contributions to the development of the perception-production link in addition to building more evidence around the existing challenges to it. For example, receptive bilinguals have high listening comprehension abilities, indicating a well-developed underlying language system, but possess limited ability to produce the language after a long period of disuse. A detailed understanding of their pooled phonological inventories and documenting the (re-)emergence of categories in production could illuminate how the perception-production link may affect types of features and their early patterns of production as well as make progress in uncovering the role of production itself in the link.

References


Book Review: Language and Learning in Multilingual Classrooms: A Practical Approach

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Global migration has emerged over the last decade such that countries that have seen relatively few immigration issues have started struggling (as France, the United States, Great Britain, and Australia have) with various and diverse concerns related to immigration. For language teachers, the new reality of global migration is a challenge, especially if the language teachers have not experienced or prepared for classes with culturally and linguistically diverse students and the acculturation issues their families face.

In Language and Learning in Multilingual Classrooms: A Practical Approach, Elizabeth Coelho addresses the needs of educators in schools where programs are developing plans for newcomers. She provides plenty of suggestions and advice with this book, which should be required for all school administrators, educational planners, and teachers of multicultural education.

The book is organized in three sections: (1) Getting Started, (2) Planning: A Whole-School Approach, and (3) In the Classroom. Each section consists of two, three, and five chapters, respectively. The first section answers a large question through two chapters: Why do teachers and administrators need to care about multilingual and multicultural teaching and learning? In Chapter 1, Coelho provides background information of linguistically and culturally diverse learners. She reports who they are, why and how they came to Europe or North America, and what they experienced in a new education system. Acknowledging that more than 20 percent of America’s children are from immigrant families, Coelho asserts it is time for educators to adjust to realities and try to integrate culturally and linguistically diverse children into classrooms with native speakers instead of separating them into language-learning courses. In Chapter 2, she prepares teachers to engage immigrant students with ready-to-use ideas and activities. The author also presents specific and detailed suggestions for initial diagnostic assessment, useful for novice teachers who are not familiar with culturally diverse student populations as well as those more experienced but perhaps desiring fresh ideas. Highlighting the importance of parents’ involvement in the latter part of the chapter, Coelho offers ample suggestions and exercises for parents so they can contribute to their children’s schooling based on each child’s situations and needs.

The second section addresses several critical areas in the realm of education planning. Chapter 3 starts out by revealing some challenges that face immigrant children at school. This section is followed by models of successful language programs in Canada, Europe, and Spain. This chapter is helpful for teachers to understand what makes learning difficult from children’s perspectives. This chapter is also beneficial for school administrators. It may provide insight as
to what kind of program they should offer. Chapter 4 contains an assessment framework for language learners at different learning stages. The author includes a summary chart of key recommendations for instruction and assessment at the end of the chapter, which is a concise overview of its content. In Chapter 5, Coelho targets educational administrators and policymakers by proposing 10 actions plans for school districts in multilingual and multicultural communities. It also contains specific outcomes from large-scale studies (e.g. nationwide research) and what the author viewed as more “small scale” studies (e.g. citywide research) on the performance of immigrant children.

The last section is a collection of practical advice and activities. They range from how to create learning environments to how to teach vocabulary in classes while considering the diverse learning needs of non-native students. That is, Chapter 6 and 7 focus on classroom environments, whereas the rest of the chapters within the section pay close attention to linguistic skill areas, such as speaking, reading, writing, and listening. In Chapter 6, as the title (6. An Inclusive Learning Environment) states, Coelho encourages readers to think not only about inclusive practices, strategies, and solutions for teaching, but also about the physical arrangement and design of an inclusive class. In Chapter 7, the author notes that it is important to view students’ linguistic diversity as an asset and to see bilingualism as a benefit for both teaching and learning. A variety of exercises and projects are described so teachers can use them in curricula. By doing so, Coelho believes teachers can take advantage of students’ differing languages and reinforce learning. In Chapter 8, Coelho talks about how to scaffold oral language communication to support immigrant students in class, putting emphasis on authentic, purposeful, and comprehensible interaction. In Chapter 9, the author continues with a focus on reading and writing instruction with an overview of different approaches. There are some examples of students’ work, so teachers can get a clear sense of what they might teach and how they could guide students. The last chapter deals with vocabulary acquisition, which is one of the most challenging aspects of language development for second language learners. By explaining why non-native students have such a hard time with vocabulary development, Coelho aspires to enhance teachers’ understanding of the issues at hand with research findings and classroom observations. She ends with what teachers need to include when assessing vocabulary knowledge.

With regard to whether the book provides a practical approach to language and learning in multilingual classrooms (as the title of the book states), the answer is ‘yes’ from my viewpoint. Every chapter includes varied effective and efficient guidance to help instructors and practitioners. Resources are listed at the end of each chapter with websites for those who are interested in the specific issues addressed and for those who want to read more. Thus, the book is a great collection of a wide range of detailed ideas and activities for teaching multilingual and multicultural classrooms. The book has other strengths as well. First of all, each chapter contains many visuals which include photos, charts and graphs to help readers understand context. The illustrations are of two types: either for teachers to use in class activities or pictures and/or maps that help explain how the teacher can implement these classroom tasks. Second, Coelho successfully maintains a balance between theory and teaching practice and successfully underscores her beliefs that it is the educators’ responsibility to support culturally diverse students and their families. Lastly, instead of a mere list of activities and exercises that might be useful for immigrant children, the author helps readers understand why the activities are helpful, why newcomers have difficulties, and why linguistic diversity is beneficial in teaching and learning. In all, given the contributions and advantages, I strongly recommend this book for
mainstream classroom teachers, specialist language teachers, school administrators, and educational policymakers.
Textbook Review: Real Reading 1

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Overview

Real Reading 1 is a beginner-level reading textbook for an adult English language classroom and is the first in a series of four textbooks designed to teach intensive reading skills and develop vocabulary. Each of its twelve units contain two thematically related chapters and target a specific reading skill, vocabulary skill, and vocabulary learning strategy. In addition to the structured units, four reading fluency practice activities are scattered throughout the book, with additional vocabulary practice activities for each unit at the end of the book. Drawing vocabulary from the General Service Word List, the Academic Word List, and the Billuroglu-Neufeld List, the textbook targets high-frequency words while also aiming for controlled vocabulary such that “95-98 percent of the words are likely to be known by a typical learner at each level” (p. viii). Nation and Cheung (2009) have found that such a degree of familiarity with a given text is the amount of comprehension necessary for unassisted reading. Cumulatively, Real Reading 1 is an accessible, research-based, and level-appropriate textbook to aid in beginner-level reading and vocabulary development, but it is not without its shortcomings.

Format

For the most part, each unit and its two chapters in the textbook follow a very similar pattern of pre-, during, and post-reading activities centered on thematically related reading texts and activities. While the themes are by no means revolutionary, they do provide familiar topics ranging from a unit on humor to one on water sports. Students are accompanied by aesthetically pleasing pictures. Units’ introductions show learners a picture and ask a series of questions to have them start talking about a theme before they are asked to read about it. In the introduction as well as throughout each unit, learners are asked to do a lot of partner work to require output and collaboration and to foster the communicative language teaching and learning that Duff (2014) outlines as an important element of successful language learning. For example, Unit 4, “Funny Business,” shows readers a cartoon and asks them to evaluate and understand it with a partner and then discuss their own habits regarding reading cartoons (p. 46). Chapter 7 in Unit 4, “The Science of Laughter,” begins in the same way that all chapters in the textbook begin — by introducing a list of target vocabulary items and asking students to self-assess their knowledge of the words and then discuss another picture relating to the upcoming reading with a partner.

Unit 7’s targeted reading skill is active reading, so both of its chapters introduce that skill and explain what “good readers” do in regards to reading actively, e.g. “Good readers ask themselves questions as they read” (p. 48). The variety of reading skills targeted in each unit,
including skills such as summarizing and understanding tone, as well as the explicit language with which *Real Reading 1* addresses them, is crucial to what Anderson (2014) describes as an important element in second language learning —students should be “metacognitively aware as they use a variety of reading strategies” (p. 171). Learners are next asked to preview and then read a passage that contains the targeted vocabulary, complete a vocabulary check, such as matching definitions to the words, and then read the passage again. Pertaining to the second time reading, students are given a “Reading Goal” that relates to the targeted reading skill in that chapter. For instance, Chapter 7 asks students to tell a partner what they knew before reading the article, what they learned, and what was interesting as a way to foster the active reading skills targeted (p. 49). This explicit and clear connection is a great way to enhance the metacognitive awareness of the particular skill and ask readers to directly apply it, but it is the only instance in each chapter that this is done.

Chapters are then continued with a multiple-choice comprehension check of the reading, another follow-up activity, such as scanning for specific answers, and a discussion about something in the reading. Each chapter in each unit also contains a vocabulary skill section or a vocabulary strategy section. In Unit 4, for example, Chapter 7 works with parts of speech and using the suffixes “-al” and “-ity” to change words from nouns to adjectives and vice versa (p. 52). Chapter 8 then has a section on dictionary use as a vocabulary strategy section (p. 57-58). Folse (2004) highlights the importance of students being exposed to a variety of vocabulary learning strategies as a way to find ones for which they are best suited, and this is further exemplified by the additional vocabulary learning resources that are present at the end of the book. The balance between integrated and isolated vocabulary learning activities is something that and Adams (2010) describe as a way to balance conduciveness to a classroom context and an intensiveness to better focus learners’ attention.

The thematically related units, short chapters, and predictable pattern create an accessible reading textbook for beginning level students that is manageable without being overly complex. Its exercises, logical progression, and recycling of vocabulary throughout and between units demonstrates its adherence to the conceptual underpinnings and claims that Bonesteel and series consultant Paul Nation made at the beginning of the book and highlights its validity as a language learning resource (Byrd & Schuemann, 2014). Its targeting of several reading skills to build on reading comprehension and fluency, as well as the “Fluency Practice” sections where students keep a record of their reading speeds throughout the book, are important to what Grabe (2009) defines as the multitude of “processing subskills and linguistic knowledge bases” necessary for second language reading development (p. 441). However, in terms of evaluating its claims as an intensive reading textbook, elongating the reading passages may open up the potential for each chapter to give a more comprehensive emphasis on the targeted reading strategy for each unit. Rather than having students simply talk with a partner about what they know from the reading and what they found interesting, as in Chapter 7, perhaps they could write a short summary of these things or have a more robust while-reading activity to enhance the targeted skill of active reading. This may be a good way to accommodate Ellis’s (2014) principle that teachers need to take into account students’ individual learning differences. Having each chapter center largely on partner discussion may isolate some learners who do not thrive in these types of activities and impede their reading skills development.
Reflection

Ironically, one of Real Reading 1’s biggest strengths also manifests as one of the potential shortcomings of the book. The amount of effort that went into integrating vocabulary theory and pedagogy, as described in the textbook’s introduction, is very evident and is demonstrated in a wide variety of activities throughout the book, as exemplified above. However, by the series title, Real Reading, as well as the expressed purpose of the entire intensive reading series, the ratio of reading skills to vocabulary activities seems somewhat disproportionate. There is an undeniable link between intensive reading and vocabulary acquisition, warranting such an emphasis on vocabulary learning and strategies in such a textbook, but space allocated to intensive reading (the expressed purpose of the book) should not be sacrificed in the process. In Chapter 7, for example, only two small boxes throughout the six pages of the chapter specifically target the reading skill for that chapter, whereas about two and a half pages work on vocabulary plus the additional materials at the back of the textbook.

In a similar vein, while the textbook offers a variety of readings with a diversity of topics, the readings themselves are, overall, rather short and do not appear to increase in difficulty or complexity as the book progresses in such a way that would create a higher demand on cognitive reading processes (Grabe, 2009). Although intended for beginners, the relative brevity of the reading passages may be a result of the over-emphasis on vocabulary learning strategies, which thereby seems to sacrifice space that could accommodate longer reading passages and/or more extensive opportunities to work on reading strategies. Rather than removing the vocabulary components, elongating or combining chapters into more robust units may be a better approach.

As stated earlier, the majority of the criticism for Real Reading 1 is not for what it includes, which is largely well done. Instead, the criticism centers on the relative lack of intensive reading skills focus in an intensive reading textbook in favor of vocabulary materials, which are incredibly valuable in their own right. The textbook is level appropriate and its scope and sequence are indicative of a key element of Kumaravadivelu’s (2001) description of a successful post-methods approach and Waller, Wethers, and De Costa’s (2016) description of praxis — it is a healthy balance between language theory and classroom practice. Particularly for courses with an emphasis on vocabulary skills and acquisition, Real Reading 1 and its associated resources has promising classroom potential.

References


