Metatalk in Advanced Spanish L2 and Heritage Learners When Solving Lexical Problems: A Multiple-case Study

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ABSTRACT

Metatalk (MT) emerges in interaction when learners, working through a linguistic problem, turn their attention to features of their language (Swain, 2000; Swain & Lapkin, 2002). One factor that influences how MT develops is learners' language proficiency. This multiple-case study explored how high-proficiency Spanish L2 and heritage learners engaged in lexical MT during a text reconstruction activity. Key findings from the analysis of learners' lexical language-related episodes (LLREs) and commentaries from a debriefing interview revealed that (a) learners targeted mostly word meaning with few exchanges on spelling and pronunciation, (b) LLRE frequencies were comparable among dyads and learner groups, (c) learners described inferencing processes toward solving LLREs as internal and often not verbalized, thus demonstrating a transition toward self-regulation, and (d) although capable of producing MT in Spanish, learners often gravitated toward English in their metalinguistic talk. MT was materialized as dyadic collaboration when learners sought an answer together; role-taking emerged as one partner took the expert role, at least momentarily, and provided an answer to the linguistic question posed by their partner.

Keywords: *Spanish heritage learners, L2 proficiency, metatalk, mediation, vocabulary*

In her seminal work on the Output Hypothesis, Swain (1985) proposed three functions of output: noticing, hypothesis-testing, and metalinguistic reflection. She concluded that in producing output, L2 learners may notice gaps between what they want to say and what they can actually say, may experiment with the language and test their own hypotheses, and may engage in metalinguistic reflections on their use and knowledge of the target language (Swain, 1998).¹

Metalinguistic reflection or metatalk (MT) emerges in interaction when learners confront a linguistic problem and their attention and talk turn to discussing linguistic features; e.g., spelling or word forms (Ellis, 2000; Swain, 2000; Swain & Lapkin, 2002). As learners engage in MT, they gain new understandings of relationships between meaning, form, and function, which may translate into L2 learning (Kuiken & Vedder, 2005; Swain, 1998). From a sociocultural theory perspective, MT is thus seen as a tool that enables or mediates learning (e.g., LaPierre, 1994; Swain, 1998, 2000, 2001b).

To date, the second language acquisition literature has considered various factors relevant to how MT unfolds, such as task type (e.g., Storch, 1999, 2002; Suzuki & Itagaki, 2007); learners' engagement (Storch, 2008); language choice (Antón & DiCamilla, 1998; DiCamilla & Antón, 1997); the use of metalinguistic terminology (Alegría de la Colina & García Mayo, 2007; Fortune, 2005); and L2 proficiency (Leeser, 2004; Watanabe & Swain, 2007). Of all the factors that influence MT, researchers have noted that the role of learners' proficiency has not been

adequately addressed (Storch, 2013; Suzuki & Itagaki, 2009; Watanabe & Swain, 2007) since studies to date have focused on low and intermediate L2 learners and not on advanced learners (e.g., Fortune, 2005; Leeser, 2004).

Considering this lacuna, the purpose of this study was to further explore MT in relation to proficiency, which is defined as learners' general linguistic abilities (Leeser, 2004), and to do so by focusing on high-proficiency speakers of different linguistic backgrounds: Spanish L2 learners (L2s) and Spanish heritage learners (HLs). This mixed population of advanced Spanish speakers was selected for this research because L2s and HLs regularly work with each other in language learning settings, especially in advanced language courses, but their interactions have been scarcely investigated (Bowles, Adams, & Toth, 2014), despite the important ways such interactions may influence language learning for both kinds of learners. Moreover, since vocabulary learning has been identified as a critical but often overlooked area for both L2 and HL speakers as they engage in language learning (Benmamoun, Montrul, & Polinsky, 2013; Kagan & Dillon, 2004; Nation, 2001), the current study narrowed its focus to lexical MT, i.e., learners' talk on questions of meaning, spelling, or other word features.

BACKGROUND

Metatalk from a Sociocultural Theory Perspective

Sociocultural theory (SCT) is a psychological theory that, when applied to the second language acquisition field, views language learning as a process in which internal mental processes derive from constructions and representations originating among individuals during interaction. As humans interact and assimilate to the world in which they live, they attempt to control and master their environment, leading to the use and creation of tools that serve to mediate their mental processes (Brooks & Donato, 1994). These tools function as mediators between the subject and the goal toward which an action is performed (Lantolf & Appel, 1994).

Psychological tools include human cultural constructions, including numbers and language (Lantolf & Thorne, 2006); they allow humans to organize mental activity (e.g., learning) and develop higher mental functions (e.g., planning). In terms of language learning, language itself is a cognitive tool that promotes acquisition (Donato, 2000; Norris & Ortega, 2000; Swain, 1995, 1998; Swain & Lapkin, 1995, 1998). In the current study, MT is regarded as a mediating tool that emerges in learners' interactions and allows them to examine their lexical knowledge thus creating opportunities for vocabulary learning.

Metatalk and L2 Learners

Many researchers have studied MT through the analysis of language-related episodes (LREs) (e.g., Brooks et al., 1997; Kim, 2008; Storch, 2008). An LRE consists of a portion of the interaction where learners talk about the language they are producing, question their language use, and correct themselves and others. In an LRE, learners verbally pay explicit attention to language itself (Storch, 2008; Swain & Lapkin, 1995, 1998, 2002). In this study, LREs target a lexical feature; namely, pronunciation, spelling, morphological components, meaning, associations, synonyms/antonyms, collocations, use, frequency, and register (Nation, 2001).

The following excerpt from Bowles et al. (2014) illustrates how two Spanish L2 learners direct their attention to the unknown word *polvo* ('dust') and engage in an opportunity for meaning learning through MT.

Excerpt 1. LRE Focused on Word Meaning

SL1: *¿Tienes... una cosa para quitar el polvo del piso? Polvo.*

[Do you have... a thing to remove the dust from the floor? Dust.]

SL2: *¿Polvo?* [Dust?] What is *polvo* [dust]?

SL1: Eh, *el*, eh... *las cosas que coleccionan en una escritorio cuando no usas mucho. Es muy sucio-*

[Uh, the, uh... the things that collect on a desk when you do not use much. It is very dirt-]

SL2: Dust?

SL1: *¡Sí!* [Yes!]

(Bowles et al., 2014, p. 498)

Prior studies on MT have reported how LREs, often triggered by collaborative tasks such as a dictogloss (e.g., Fortune, 2005; Kim & McDonough, 2008; Leeson, 2004), vary in terms of focus, outcome, and production. For instance, Leeson (2004) reported on the interactions of Spanish L2 learners' of different language proficiency working together in dictogloss tasks. For the analysis, LREs were categorized based on their focus (grammatical or lexical), production, and outcome (e.g., whether the LRE was solved correctly, left unresolved or abandoned, or resolved incorrectly). Leeson found that more proficient learners turned their attention toward grammatical questions while lower proficiency learners focused on the lexicon. More proficient dyads also produced and solved more LREs correctly than lower proficiency ones.

Likewise, Fortune (2005) compared MT production through LRE analysis of advanced and intermediate English L2 learners during a dictogloss. In the LRE analysis, the author reported on the use of metalinguistic terminology, focus (meaning, grammatical, orthographic), and how MT was utilized in dyads. Actual uses of MT included explaining the meaning of an unknown item, providing a synonym or antonym, citing an example of the item used in another context, and illustrating how lexical selection relates to levels of formality (Fortune, 2005, p. 29). Findings demonstrated that higher proficiency learners produced more MT, focused on grammatical LREs, and employed more metalinguistic terminology than intermediate learners.

Suzuki and Itagaki (2009) also found that more proficient learners engaged in more grammar-oriented LREs than low-intermediate learners. Furthermore, participants completed grammar tasks that were either comprehension or production oriented. Production oriented tasks proved to be more difficult than comprehension ones. It was found that, in addition to learner proficiency, task type also influenced how MT unfolded: if a task is either too easy or too difficult, learners engage in less MT.

Lastly, prior investigations have concluded that language choice plays a role in the unfolding of MT. DiCamilla and Antón (1997) and Antón and DiCamilla (1998) found that MT produced in the L1 is more prevalent in the speech of lower proficiency learners than in that of more advanced speakers. Lower proficiency learners prefer to use their L1 because it is too difficult for them to express complex ideas through MT in the L2. Moreover, MT in the L1 appears to fulfill unique functions, including helping to establish a common goal in the task, scaffolding, and serving as an outlet for inner speech.

DiCamilla and Antón (2012) focused on L2 proficiency and investigated how it influenced multiple language functions, including MT. Participants were enrolled in either first or fourth-year language courses and worked with a classmate on a collaborative writing task. Their interactions were analyzed using a taxonomy based on task content, language, task management, and interpersonal relations. The “language” category referred to MT and included discussions about solving grammatical and lexical questions. Conclusions supported earlier findings since, overall, lower proficiency learners used the L1 more than higher proficiency learners across functions, but mostly for discussions about content. Higher proficiency learners produced all functions, including MT, mostly in the L2.

Although prior studies provide insights into the relationship between MT and proficiency, there are limitations to their findings. First, they introduce loose definitions for L2 learners’ proficiency levels. For example, in Leaser (2004) all learners were enrolled in a fourth semester Spanish course and their proficiency levels were determined as high and low only in relation to each other’s skills. Second, proficiency was often determined by non-comparable assessment forms across studies, which challenges the generalizability of their conclusions; e.g., course enrollment in DiCamilla and Antón (2012) and a grammar test in Fortune (2005). Lastly, research has concentrated on low and intermediate learners and not on truly advanced learners (Fortune, 2005; Leaser, 2004).

Metatalk and Heritage Learners

The growing number of Hispanics in the U.S. is well documented in Spanish language programs in which HLs and L2 learners share language classrooms (Bowles et al., 2014). Despite the reality of mixed classrooms, few studies have researched the interaction, much less the MT production, of HLs with other HLs and/or L2 peers. Exceptions include Bowles (2011), who investigated LRE production among L2-HL dyads in task-based activities. LREs were coded according to their target and resolution. Bowles found that L2 and HL learners initiated a similar number of LREs and that there was no significant difference in the number of LREs that HL and L2 learners resolved. However, HLs initiated more LREs targeting orthography while L2s initiated more LREs on grammar and vocabulary, and HLs relied on their linguistic intuitions for LRE solutions.

In a subsequent study, Bowles et al. (2014) considered the interaction of L2-L2 dyads and L2-HL dyads. Learners participated in an information exchange activity and their LREs were examined for quantity, linguistic focus, outcome, and who initiated them. Following the task, learners completed a perception questionnaire. Results showed that L2-L2 and L2-HL dyads produced similar LRE totals and focused mostly on the lexicon. Mixed dyads produced more

target-like results and most LREs were solved by the HL partner. Regarding LRE initiation, L2 learners initiated more LREs. The amount of talk in the target language (Spanish) was greater in HL-L2 dyads than in L2-L2 dyads. In their perception questionnaire, L2 learners ranked themselves lower in their own Spanish skills when working with an HL, and HL learners perceived that the task had mostly benefited their L2 interlocutors.

As seen in this section on MT and HLs, research on these learners also includes various approaches to measuring proficiency. In Bowles (2011) learners took a test adapted from DELE and in Bowles et al. (2014) participants completed a university placement exam. Consequently, although these studies provide some insight into interactions between HL and L2 learners, it is not clear how proficient HLs and L2s were.

Collectively, then, research to date shows that proficiency can influence how MT develops as seen through the analysis of LRE mechanics (i.e., focus, outcome, production, language choice and initiator) as well as concrete uses of MT (e.g., explaining the meaning of an unknown item or providing a synonym). However, most evidence appears to be based on low and intermediate L2 learners. Additionally, the level and kind of proficiency differences present in classrooms today is changing rapidly as more Spanish HLs enroll in Spanish courses (Potowski, Jegerski, & Morgan-Short, 2009). Research on MT in HL-L2 and HL-HL interaction is extremely limited, but suggests that the experiences for both groups may be quite different even when they engage in the same activities.

Considering these lacunae, the current study aimed to investigate MT in advanced speakers of Spanish, HLs and L2s, by focusing on lexical MT. Like many studies reviewed above, it did so by exploring LRE mechanics and MT uses as learners engaged in a collaborative task. The following questions guided this investigation:

- (1) What are the mechanics of lexical language-related episodes produced by advanced learners?
 - (a) What are LLREs' foci?
 - (b) What are their outcomes?
 - (c) What is the LLRE production, i.e., the number of episodes produced?
 - (d) What is the language of LLREs?
 - (e) Who in the dyad initiates LLREs?
- (2) How is MT used in solving language-related episodes and mediating vocabulary in advanced learners?

METHOD

Participants

Eighteen subjects (five males and thirteen females) participated in this multiple-case study. Participants were enrolled in various upper division Spanish courses at a public suburban university in the Southwest of the United States. Participants' ages ranged from 20 to 28 years.

In order to determine their linguistic status as L2 or HL, subjects completed a linguistic background questionnaire (Appendix A). Ten learners were classified as HLs and eight were

identified as L2 learners. This categorization was based on Valdés's (2001) definition of a L2 learner as an English speaker who learns Spanish as a foreign language and a heritage learner as a learner who was raised in a home where a non-English language was spoken.

In terms of learners' proficiency, and with the aim of utilizing a test whose scale and results could be widely interpreted by other researchers in the language acquisition field, ACTFL (2012) guidelines for speaking and listening were selected. The assessment was carried out through an oral proficiency interview (OPI) by the researcher.²

It is important to note that measuring proficiency in the heritage language has been acknowledged to be challenging due to the heterogeneity of this population (Benmamoun et al., 2013). Detailed biographical reports and language-based measures (e.g., lexical proficiency diagnostics) have been recommended for speakers with lower linguistic skills in the heritage language (Kagan, 2005). For those who read and write in the language, which the participants in this study are able to do, both standardized and non-standardized tests have been utilized (e.g., Montrul, 2009). However, such tests have been criticized because they may penalize HLs who speak non-standard varieties of Spanish (Valdés, 1989). In light of this study's objective to analyze MT in learners whose linguistic background varied but whose skills in Spanish were comparably advanced, I considered the OPI to be appropriate because it assesses linguistic skill in the target language regardless of subjects' background (Martin, 2010). Moreover, only ACTFL speaking and listening guidelines were implemented because the focus in this research is on MT in interaction.

Participants' proficiency was determined to be within the advanced range. In general terms, ACTFL guidelines describe advanced learners as being able to clearly and actively participate in conversations on a variety of topics. Advanced learners can handle unexpected complications during the linguistic exchange and their speech can move within major time frames. They also control grammatical structures and generic vocabulary.

Dyad formation was mostly self-selected and some were random. Dyads were self-selected when during the recruitment process two learners from the same class volunteered together to participate in the study. At other times, dyad formation was random and constricted by participants' schedule and availability. As seen in Table 1, dyad formation resulted in four HL-HL, three L2-L2, and two HL-L2 dyads. Learners were acquainted with their partners except in two dyads in which they did not know each other (Da-Ke [L2-L2] and Ma-Li [HL-L2]).

Table 1

Dyad Profiles

Dyad	Participant	Gender	Linguistic status
1	AB	F	HL
	HE	M	HL
2	JU	M	HL
	NA	F	HL
3	PE	F	HL
	TE	F	HL
4	AN	F	HL
	ER	F	HL
5	DA	M	L2
	KE	M	L2
6	EK	F	L2
	SA	F	L2
7	MI	M	L2
	EM	F	L2
8	EL	F	HL
	JE	F	L2
9	MA	F	HL
	LI	F	L2

Material

Using selected ethnographic techniques, the study employed multiple data sources including transcripts of a dicto-comp text reconstruction activity, debriefing questions following the text reconstruction, and observations of learners' activity. The utilization of various data sources contributed to triangulation of findings. Through an ethnographic approach to the data, learners' activity was analyzed through the identification of categories relevant for qualitative analysis of the particular data set (Mackey & Gass, 2005).

The dicto-comp, an adaptation of the dictogloss, was selected as the primary basis of data collection due to its wide use in studies on MT (e.g., Kowal & Swain, 1994; LaPierre, 1994). During the task, learners hear a text twice. The first time they only listen to the text, and the second time they take notes that they use to reconstruct the text. What differentiates the dicto-comp from the dictogloss is that there is also a number of target words from the text that are made visible to learners. They are asked to include these words in their text reconstruction, which encourages them to focus their discussions on those words and to produce lexical-oriented MT (Nation, 2001). In addition, dyads were asked to submit a written copy of their reconstructed text. Producing a written product as a result of a collaborative task increases the occurrence of LREs (Ross-Feldman & Gass, 2005).

The dicto-comp described a newlywed couple, Ida and Fernando, who adopted a dog (Appendix B). The text included 125 words total, 9 of which were low-frequency target words. The text was written by the researcher together with a colleague. All nine target words are either verbs or nouns. The occurrence ratio of each part of speech corresponds to its occurrence in natural language. The occurrence ratio was calculated by consulting Davies' (2002) *Corpus del Español* for the 1000 most common words for the last 200 years of the corpus data. The query requested was for all words in their token forms, each tagged by their part of speech. Results included a count of how many times each word occurs, which allowed for a comparative analysis of the ratio of parts of speech in a representative sample of written Spanish. The overall percentages of the occurrence of content words; i.e., verbs (8.9 percent), nouns (11.9 percent), and adjectives (2.3 percent), translates to a three-number ratio of 4:5:1 when expressed in parts per ten. Due to the low number of adjectives, it was decided to focus on nouns and verbs only.

Target words (in italics) are listed with their English translation and function in parentheses: *acoger* (take in, verb), *cónyuge* (spouse, noun), *desestimar* (to reject, verb), *encomiar* (to praise, verb), *escarbar* (to dig, verb), *marfil* (ivory, noun), *merodear* (to prowl, verb), *pelaje* (coat, fur, noun), *pinta* (spot, noun), *poltrona* (armchair, noun), *travesear* (to play around, verb), *vallado* (fence, noun).

Procedure

Each dyad scheduled a time to perform the task at the researcher's office. To initiate each meeting, the researcher explained the text reconstruction activity and instructed the learners that they were free to speak in either English or Spanish during the task (see Appendix C for instructions). Although the dictogloss, or dicto-comp in this case, is normally intended to be carried out in the target language (Wajnryb, 1990), giving learners the freedom to use English or Spanish was motivated and supported by prior research in sociocultural theory (Vygotsky, 1986), which argues that learners' language choice is not particularly relevant to their resulting cognitive development and that the L1 or L2 can be equally effective in enabling knowledge (e.g., Antón & DiCamilla, 1998; Swain, Lapkin, Knouzi, Suzuki, & Brooks, 2009). Moreover, as Scott and De la Fuente argue (2008), imposing the L2 can be futile, as language learners resort to it as a resource whenever they see fit, and, secondly, limiting interaction to the L2 can inhibit collaboration and constrain learning that could otherwise arise from collaborative interaction.

Each learner dyad completed the dicto-comp in an average of 15 minutes. The reconstruction was followed by the debriefing interview (Dobinson, 2001). During the interview, learners were asked which words they knew before the task, which words they learned during the task, what they learned about the words, what facilitated their learning during the interaction, and what went through their minds as they solved lexical problems.

Data Analysis

The analysis aimed to describe mechanics and uses of lexical MT produced by advanced learners in HL-HL, HL-L2, and L2-L2 dyads. As a first step, collaborative lexis-based LREs (LLREs) were identified; self-corrections were not included. LLREs involve work with an aspect of the lexicon such as searching for a word or choosing among vocabulary items (Swain, 2001a). In this study, the concept of the LLRE was broadened to include any aspect related to the target

word, including pronunciation, spelling, morphology, meaning, associations, synonyms/antonyms, collocations, use, frequency, and register (Nation, 2001). In the second step, LLREs' mechanics (i.e., initiator, language, outcome, and production) were examined. Table 2 defines each of these terms.

Table 2

LLRE Mechanics

Initiator	The learner who initiated the episode by changing the discussion focus, reacting to a correction, or expressing nonunderstanding (Bowles, 2011; Bowles et al., 2014).
Language	The language of lexical metalinguistic speech, i.e., the language utilized for discussions on solving LLREs (DiCamilla & Antón, 2012)
Outcome	How the LLRE was settled: solved correctly, not solved, solved incorrectly, disagreement about LLRE solution (adapted from Swain, 1998)
Production	The number of LLREs produced per dyad (Leeser, 2004)

Thirdly, the analysis included reflection on how MT was utilized. This categorization referred to ways in which explicit and non-explicit knowledge contributed to solving the episode. Explicit knowledge was demonstrated as explaining the meaning of a word, providing another example of the use of a word, citing an example of the item used in another context, and illustrating how lexical selection relates to level of formality (Fortune, 2005, p. 29). Non-explicit knowledge was identified as using intuition as the source of the LLRE solution (Bowles, 2011).

To ensure reliability in the data analysis, 33% of the interaction data was analyzed separately by the researcher and a second rater. The second rater was a colleague of the researcher who specializes in heritage speakers and discourse analysis. There was 96% agreement in all coding categories; this percentage was considered high enough for the researcher to code the remainder of the data by herself.

RESULTS

Results are presented in three sections: lexical MT in HL-HL dyads, lexical MT in L2-L2 dyads, and lexical MT in HL-L2 dyads. Each section comprises a descriptive analysis of each dyad's interaction and performance, and concludes with a summary referring to this investigation's research questions.

Lexical MT in HL-HL Dyads

AB and HE: Absence of MT

As AB (HL) and HE (HL) worked together, their main goal appeared to be to reconstruct the text; they were concerned about the overall meaning of the text content, but they did not engage in metalinguistic exchanges. During their interaction, as seen in excerpt 2, they mentioned all target words (lines 2, 4, and 5), but they did not engage in MT. Target words from the dicto-comp are underlined in all excerpts; translations are provided in brackets.

Excerpt 2. No Metatalk

2 AB: So, *Ida tiene veintisiete años y vive con su cónyuge Fernando*

[Ida is twenty seven years old and lives with her spouse Fernando].

3 HE: Fernando...and I go, the next one. She's got a dog, *se llama Mufasa* [his name is Mufasa].

4 AB: *Fernando y ella se casaron hace dos años...*

[Fernando and she got married two years ago.]

Y lo acogieron ...

[And they took him in, right?]

5 HE: Yeah, *y en un año acogieron Mufasa* [and within a year they took in Mufasa].

Mufasa tiene pintas [Mufasa has spots]...that's the next one...*blancas y grises y tiene dos años* [white and grey and he is two years old].

The absence of MT could simply indicate that AB and HE were familiar with the lexicon in the text and had no need to produce lexical MT to infer additional information. Nevertheless, during the debriefing interview when participants were asked about their knowledge of target words, AB and HE did report that several words were unknown to them, e.g., *pelaje* ('fur'). However, they acknowledged that they developed an understanding of the meaning of unknown words during the activity completion mostly through their comprehension of contextual clues. However, no such inferencing was verbalized during their exchange.

AB and HE collaborated in Spanish. They used English to discuss functional aspects about the task such as punctuation in the reconstructed text. In only three instances these participants used English with the purpose of discussing text content.

JU and NA: Individual Task Orientation and MT

JU (HL) initiated the three LLREs present in this dyad. LLREs targeted the meaning of target words: *cónyuge* ('spouse'), *acoger* ('take in'), and *vallado* ('fence'). They addressed contextual information together to solve LLREs. They relied on Spanish to comment on the text content and organize the task; MT was focused on answering lexical questions and was produced in both English and Spanish.

One aspect of their collaboration that may have inhibited MT relates to JU's own goals for the task. While NA (HL) focused on reconstructing the text, JU attempted to embellish the text by

adding details to the story that were not included in the original text. NA did not seem to agree with JU's additions, and she grew quieter as JU proposed changes to the text, as he was in charge of writing. In addition, these learners explained that they relied on contextual clues to gather target words' meaning. JU added that some target words felt familiar when he heard the text but they were not words that are actively used in his everyday life.

PE and TE: Code-switching in MT

PE (HL) and TE (HL) produced two LLREs, one focused on the pronunciation of the word *cónyuge* ('spouse') and the second on the spelling of *poltrona* ('armchair'). Both LLREs were initiated by TE and solved correctly with PE's assistance. In the first instance, PE modelled the appropriate pronunciation, which TE repeated on the next turn. Next, TE was in charge of writing the reconstructed text, so she inquired about the spelling of *poltrona* by showing PE how she had written the word. PE gestured that the spelling was correct.

During the debriefing interview, PE did not provide any insights about the lexicon targeted in the text. TE was open to discussing the task. She indicated that three words were unknown to her: *cónyuge* ('spouse'), *acoger* ('to take in'), and *pintas* ('spots'). She was able to gather what *cónyuge* and *pintas* meant as they worked on the task, but not *acoger*, which they replaced in the reconstructed text with *adoptar* ('to adopt'). Switching *acoger* with *adoptar* suggests that learners were able to grasp the meaning function that *acoger* filled in the text; however, they did not seem to connect this meaning to the new lexical item form.

PE and TE's collaboration was conducted solely in Spanish; however, in talking to the researcher after completing the task, TE switched to English to explain her thoughts. As seen in Excerpt 3, regarding the term *vallado* ('fence'), she relied on English lexicon in her metalinguistic discussion.

Excerpt 3. Code-switching

Eh, yo no sabía esa palabra hasta que leímos el texto que se iba por debajo de...la casa

[I didn't know that word until we read the text that it went underneath the house]. *No sé*

cómo se dice eso [I don't know how to say that]. *Es como la casa tiene un* [it's like the

house has a]... beam *y tiene como un* [and it has like an] underscore. It's not concrete, it's

como [like], like a mobile home.

AN-ER: L1 in Providing Meaning

AN (HL) and ER (HL) produced four LLREs focused on meaning, including *cónyuge* ('spouse'), *poltrona* ('armchair'), *vallado* ('fence'), and *merodear* ('to prowl'). AN initiated three episodes and ER initiated one. LLREs were solved on two occasions as learners examined, in Spanish, the context of the story together. The other two episodes were solved as either AN or ER defined the

target words in English. Excerpt 4 illustrates how English was utilized as the language of MT as learners defined word meaning.

Excerpt 4. L1 and Meaning

10. AN: ¿Sabes lo que significa *vallado*? [Do you know what fence means?]

11. ER: *No*.

12. AN: *Yo tampoco* [me either]

13. ER: ¿*Vallado* es como la fence? [*vallado* is like the fence?]

Se escapa debajo del vallado [it escapes underneath the fence]

14. AN: *Vallado* [fence]

15. ER: Aha

In their post-activity commentary, AN and ER reflected on how the text's context was essential to determine the meaning of unknown words, particularly for some of them, for which context made meaning more apparent than for others. They also agreed that several target words were not part of their productive vocabulary as they appeared to be too formal for the type of language they normally engage in for their everyday conversations in Spanish. However, they said that upon hearing target words, they seemed to be somehow familiar to them, possibly from their exposure to classroom Spanish.

In summary, these HL-HL dyads' performance ranged from no MT to a few LLREs targeting mostly meaning. LLREs' resolution was successful; learners relied heavily on their comprehension of content to infer meaning. They sustained their collaboration mostly in Spanish but also switched into English to produce MT and build knowledge.

Lexical MT in L2-L2 Dyads

DA and KE: Morphology and non-verbalized MT

DA (L2) and KE (L2) relied on Spanish to discuss the text content; they used English to discuss task practicalities (e.g., who would take notes) and to engage in MT. DA initiated two LLREs, one on how to pronounce *travesear* ('to play around'), which went unresolved after both learners attempted to figure out how to pronounce it but failed. The second LLRE targeted the meaning of *escarbar* ('to dig'). As seen in excerpt 5, DA (line 53) sought confirmation for the meaning of *escarbar* from his partner. KE confirmed DA's proposition and made a morphological connection between the target word *escarbar* and the related noun *escarabajo* ('beetle') to show DA the connection in meaning between these two terms (line 53).

Excerpt 5. Morphology and MT

53. DA: I wasn't sure of how old the dog was. And, also, I wasn't sure if the verb was *escarbar*, to dig up the plants and flowers ...

54. KE: Yeah. To dig up! A beetle is '*escarabajo*'

55. DA: Cool

In their debriefing interview, learners reported on the analysis of contextual and morphological features as providing meaning clues. They also revealed that much inferencing was not verbalized during their interactions. In excerpt 6, DA speaks with the researcher (RE) during the post-activity interview about how morphological clues mediated words' meaning, although he did not verbalize any of these deductions during the task.

Excerpt 6. Non-verbalized Inferencing

63. RE: ¿Cuántas de estas palabras sabías antes de este ejercicio?

[How many of these words did you know before this activity?]

64. DA: Uh. I didn't know...most of those, actually?

65. RE: How many do you know now?

66 DA: Well, I think I knew *pintas* [spots] y uh, *pelaje* [fur] looks like *pelo* [hair], so I kind of put that together. *Cónyuge* [spouse] like 'conjugal.'

Now...like *cónyuge* [spouse] is more like, *como esposo* [like husband]...

It is also noteworthy regarding Excerpt 6 that the researcher's initial question was formulated in Spanish (line 63). However, DA's answers and subsequent analysis of his own performance were produced in English, thus suggesting a preference for his L1 to carry out analytic linguistic functions.

Another feature of their collaboration was replacing target words with more familiar items as they gradually reconstructed the text; for example, they described the dog as having *manchas* ('spot, stains') and not *pintas* ('spots') in its *pelo* ('hair') instead of *pelaje* ('fur').

EK-SA: Ignoring Unknown Vocabulary

EK (L2) and SA (L2) produced three LLREs. Two targeted meaning - *vallado* ('fence') and *anoche* ('last night'), and one spelling - *básquetbol* ('basketball'). SA initiated all three LLREs. They were unable to determine what *vallado* meant and the LLRE remained unresolved. The

question about the meaning of *anoche* was resolved when EK defined it in the L1 as ‘last night.’ EK also corrected SA’s spelling of *básquetbol* by spelling out the word for her partner. Learners switched back and forth in the use of English and Spanish, and MT was produced in both languages.

Debriefing commentary highlighted that these learners did not know most target words; EK knew none of them, and SA knew one item (*pintas* or ‘spots’). They reported that during the task, they came to an understanding of several target words’ meaning, at least for those words whose meaning appeared to be transparent in context. They added that they did not think it necessary to discuss the meaning of each word with each other during the task.

EK pointed out that several target words describing the dog’s behavior appeared to emerge clustered together, without sufficient surrounding context to support meaning inferencing for each term. She also made the case that, although she cares to learn L2 vocabulary, she has learned to ignore vocabulary without sufficient surrounding clues to gather meaning. SA concurred with EK’s views that it is not possible to care about every unknown word they encounter since their meanings were clear from context.

MI-EM: Morphological and Contextual Clues

MI (L2) and EM (L2) produced all functions related to the task, including MT, in Spanish. They engaged in six LLREs, all on target words’ meaning. MI initiated one, and EM initiated the remaining five. Two LLREs were solved and four remained unsolved. Although not completely successful in their attempts, learners relied heavily on analyzing target words’ morphology as well as text context in order to understand their meaning, as seen in Excerpt 7.

Excerpt 7. Morphology in MT

9. EM: *Merodear. Probablemente eso es un parte, un parte de este, del jardín*

[To prowl. Probably this is a part, a part of this, of the garden].

10. MI: *Sí, pero no sé.*

[Yes, but I don’t know.]

11. EM: *¿Qué significa ‘rodear’?*

[What does ‘to surround’ mean?]

12. MI: *‘Rodear’ es una palabra, pero no recuerdo qué significa.*

[‘To surround’ is a word, but I don’t remember what it means]

In their debriefing commentary, MI and EM indicated that they did not know any of the target words prior to the task. At its completion, they could guess a general meaning for most of them.

As seen during instances of their collaboration, learners relied on context and morphology. For instance, they reported narrowing down the meaning of *acoger* ('to take in') by relating the term to *recoger* ('to pick up') and *escoger* ('to pick') and then confirming their ideas with context. EM added that, when working on a language task, she habitually focuses on what she does know and not on what she does not.

All in all, L2-L2 dyads produced four LLREs on average that mostly targeted word meaning. While some LLREs were solved with the aid of content clues, other LLREs remained unresolved. L2-L2 dyads also attempted to explore lexical items' morphology to determine their meaning. While dyads sustained Spanish as the language of their interaction, there was a preference for English as the language of MT. This was most apparent in their discussions with the researcher, which prompted learners to verbalize MT and analyze their thoughts about the task. L2 learners also observed that prior language training taught them to rely on what they do know and overlook what is unknown, which discourages spontaneous MT.

Lexical MT in HL-L2 Dyads

EL-JE: Unaddressed LLREs

EL (HL) and JE (L2) engaged in six LLREs, all of which targeted meaning. JE initiated five LLREs and EL one. Three were solved through EL's assistance in the form of English translations, a synonym in Spanish, and a definition in Spanish, and two remained unresolved. The unresolved LLREs stand out because both episodes appeared to have been unaddressed, rather than not solved, when EL ignored JE's LLRE initiation.

Excerpt 8 illustrates an unaddressed LLRE in this dyad. In this instance, JE (L2) and EL (HL) were discussing a section of the text in which the dog digs a hole underneath the fence. The target word in question was *vallado* ('fence'). JE believed that the term *vallado* referred to a part of the house and asked EL for confirmation (Line 40). JE received no response from EL (Line 41). JE repeated the question (Line 42) and again received no answer. EL continued to work on the text reconstruction. Notations are included in parentheses to clarify the exchange.

Excerpt 8. Unaddressed LLRE

38 EL: *Escapar. Se escapa por el vallado de la casa*

[To escape. He escapes through the house's fence]

39 JE: Mhm. Um...I know it said something, like, under the house. I don't know what that means (JE refers to 'vallado')

40 EL: He escapes (EL continues writing)

41 JE: Uh. I don't know what that means (JE refers to *vallado*)

42 EL: *Manchas* [Spots], that's my dog... *Mufasa que tiene tres años, siendo muy travieso, se sale* [Mufasa who is three years old, being very naughty, escapes] (EL continues writing)

It could be argued that such LLRE was simply unresolved; however, LLREs are unresolved when the learners agree that they do not know the answer (Leeser, 2004). In this instance, the interaction did not advance to a stage to allow for either resolution or failure.

During their joined activity, EL appeared to take much control of the task. She re-wrote the text with little collaboration from JE and also recorded the finished text (as participants had been instructed to do as they concluded the task) even though JE had requested to do that part of the activity. During the debriefing interview, EL gave little room for JE's participation, who mostly contributed by responding to yes-no questions.

MA-LI: Task Easiness and MT

MA (HL) and LI (L2) produced four LLREs; two focused on spelling and two on meaning. Three LLREs were initiated by LI and one by MA. All four LLREs were solved correctly. Three LLREs were solved through MA's assistance and one through a collaborative analysis of contextual clues. MA assisted LI in answering questions on meaning by providing translations in the L1 or a synonym in Spanish. When LI questioned the spelling of *vecinos* ('neighbors'), MA spelled it out for her. Their exchange was completely in Spanish.

In the debriefing interview, learners agreed that, although they did not know all target words, the task had been relatively easy. They had no need to explicitly address the meaning of target words since their meaning was clear in context.

In these two HL-L2 dyads, six and four LLREs were produced, and most were initiated by the L2 partner. Meaning was the LLREs' main focus. Participants collaborated in Spanish but when resolving LLREs, they (most often HLs) turned to English as a tool to define words for their partners.

Discussion

The first research question inquired about the mechanics of advanced learners' MT, i.e., LLREs' focus, production, outcome, initiation, and language. In terms of focus, collectively, learners targeted word meaning, and, in a few instances, they questioned a term's pronunciation or spelling. This targeting is consistent with prior findings on MT and lexical foci in which learners primarily targeted meaning over other lexical features, e.g., frequency or register, during a text reconstruction task (e.g., Kim, 2008; Leeser, 2004). The task design may have limited learners' focus since it was meaning oriented, and there was no need for learners to focus MT on exploring lexical features other than meaning (Hulstijn, 1993).

All dyads, regardless of their status as mixed or matched, produced comparable LLRE frequencies, as Bowles (2011) also found. However, learners' debriefing interviews

demonstrated that much inferring, mostly through context and morphology cues, was not verbalized during the task. Both HLs and L2 learners did not appear to resort to verbalization of the unknowns they encountered and instead processed questions internally, thus providing little evidence to the observer of any metalinguistic processing taking place. From a sociocultural perspective, a decreased number of LLREs is consistent with notions that higher proficiency learners are more capable of self-regulation than lower proficiency learners. Self-regulation implies that learners develop control over their own behavior; it emerges through repeated use of language as a mediating tool. Thus, this finding suggests that advanced language learners appear to be more able to carry out functions individually and without external support than lower proficiency learners (Lantolf, 2000).

In considering LLRE outcomes, most episodes produced by the participating dyads were solved correctly. A new LLRE outcome category was proposed: unaddressed LLREs. This categorization emerged from a HL-L2 dyad's interaction in which the L2 learner initiated two episodes that were not acknowledged by the HL partner. This behavior has been identified in mixed dyads in which the HL takes control over the task and dismisses the L2's participation (Tocaimaza-Hatch, 2015). Two explanations for the occurrence of unaddressed LLREs in HL-L2 dyads are proposed: first, HLs may not always have an answer to their L2 partners' inquiries but might feel pressure to be the more capable learner in the dyad, in which case, ignoring the L2 learners' queries might help them conceal their lack of knowledge; second, HLs might not always care to be the dyad member who provides mediation or assistance to the L2 partner. In full use of their agency, individual learners decide how to conduct themselves during a shared task (Watanabe, 2008; Watanabe & Swain, 2007). Their individual task orientation and resulting collaboration certainly impact MT frequency and outcomes.

Upon examining LLRE initiation, L2 learners appeared to initiate more LLREs than HLs. L2s' higher engagement in MT has been explained as resulting from higher participation in language courses than HLs. In language classes, L2 learners are trained to be introspective about their interlanguage (Potowski, Jegerski, & Morgan-Short, 2009) and to be vocal in doing so. For L2s, MT becomes a natural aspect of language learning. In contrast, HLs may have less metalinguistic training since they often enroll in upper-level courses without having had prior language learning experience in formal settings. For this reason, HLs may be less comfortable engaging in metalinguistic talk, particularly when partnered with L2 learners for whom MT is a familiar linguistic function.

However, a recurrent comment among L2s was that they overlooked unknown terms and instead focused on what they knew, a matter that has been addressed before in implicit vocabulary learning research (e.g., Hulstijn, Hollander, & Greidanus, 1996). Although ignoring unfamiliar words leads to less MT and fewer opportunities for learning, perhaps it aids learners in gaining control over the task. When learners choose to narrow their focus only to what is pertinent to their goals or what is readily accessible, they avoid unknowns that they perceive simply as distracting. In doing so, learners actively employ their agency and move towards self-regulated learning (Lantolf, 2012; Lantolf & Pavlenko, 2001, as cited in Benson, 2006).

Moreover, the analysis of language choice shows that MT was produced in both languages; however, some dyads produced MT entirely in Spanish, thus supporting the concept that more advanced learners are able to produce MT in the target language (Centeno-Cortés & Jiménez, 2004; DiCamilla & Antón, 2012). A number of LLREs included both languages. In these instances, learners' switch to English signaled a pause in the flow of the activity reserved for metalinguistic objectives. In addition, learners providing assistance in solving an episode often did so in English, at times mixing both languages within one utterance. Moreover, as seen in debriefing interviews, learners often preferred to address the researcher's questions in English. A preference for English as the language of MT shows that, although capable of producing MT in the target language, advanced learners may find it easier to address metalinguistic matters in their dominant language. These findings support the idea that limiting MT to the L2 can inhibit collaboration and constrain learning that could otherwise arise from learners' interaction (Scott & De la Fuente, 2008).

The second research question referred to how MT is employed in solving LLREs and mediating vocabulary. Context was a main feature of MT use when learners discussed text content in search of clues on target words' meaning, perhaps by activating the connection of old lexical knowledge with new information presented in the text (Joe, 1995). Another strategy common to L2s was breaking down a term's morphemic components and comparing them to morphological patterns in more familiar terms. The analysis of contextual clues and morphological features were often embedded in collaborative exchanges in which both participants actively engaged in the question posed by the LLRE and scaffolded knowledge jointly (Antón, 1999).

In this data set, though, collaborative exchanges in which both learners contributed equally were less frequent than those in which one dyad member posed a question that was readily answered by his or her partner. In these interactions, learners embodied expert and novice roles where experts assisted their partners (Aljaafreh & Lantolf, 1994). This mediation was materialized as the learner in the expert role, at least momentarily, provided meaning for unknown items—mostly in the L1—introduced synonyms, cited examples of the item in a different context (Fortune, 2005), spelled out words, and modelled correct pronunciation.

Overall, as seen in this investigation, the analysis of MT production by L2s and HLs across dyads suggests that lexical MT features for each learner type were more similar than not. Both HL and L2 participants presented comparable LLRE mechanics, e.g., foci and language, and often omitted the verbalization of their metalinguistic analyses. For the language practitioner, these findings imply that HL and L2 learners of comparable proficiency possess similar approaches to lexical MT and would work well together in either mixed (HL-L2) or matched (L2-L2, HL-HL) dyads during a collaborative task. However, this study has also exposed aspects of HLs' performance that merit further attention.

First, HLs appeared to initiate fewer episodes than their L2 counterparts. Indeed, one HL-HL dyad (AB-HE) spoke of the target words but did not seek to understand them through verbalized MT. Second, HLs relied on context meaning to infer lexical knowledge but did not attempt to solve LLREs through other means, such as the analysis of target terms' morphology, which was common in L2s. These issues resonate once more with HLs' having spent less time in structured

language training than L2s. Thus, explicit instruction on the subject of metalinguistic talk might be helpful to HLs. This instruction could include MT modelling, prompted verbalizations on linguistic questions, and practices in which language is emphasized as more than a means to transfer a message but as a means to further or mediate linguistic knowledge. In addition, instruction on MT could introduce HLs to linguistic terminology. As it has been noted, MT can include metalinguistic terms or not, and it will not make a difference in mediation (Alegría de la Colina & García Mayo, 2007; Fortune, 2005; Swain, 1998); however, having knowledge of linguistic terms can raise HLs' confidence when working with L2 learners (Bowles, 2011), who are more likely to use linguistic terminology as a result of continued language instruction.

Lastly, as discussed before, unaddressed LLREs may suggest L2s' over reliance on HLs during interactive tasks. The assignment of roles (e.g., expert, scribe) and the inclusion of tasks that create language learning opportunities for both L2s and HLs could offer equal footing for dyad members as well as create language learning opportunities for both learner types. Furthermore, the strategic and careful assignment of the expert role to HLs by the language instructor can be used for the purpose of validating HLs' strengths in the language, thus addressing HLs' feelings of inadequacy in the heritage language and raising their confidence (Martínez, 2003).

Limitations and Future Research

Limitations of this research include a non-classroom setting for data collection, a task that limited the range of LLREs, and debriefing interviews in dyads. Since data collection was done in the researcher's office, it is possible that learners would have responded differently in a naturalistic setting, possibly engaging in more—or less—MT. Also, as implemented, the dicto-comp was a poor stimulus of MT in a variety of lexical features. Adaptations to the task such as including more explicit expectations could encourage learners to produce MT on more diverse aspects of the lexicon to target. For instance, learners could be instructed to create a linguistic profile for target words in which they explain, besides meaning, features such as function, frequency, or register. Lastly, debriefing interviews would have provided more insights about each participant's cognitive processes if they had been carried out with each individual learner instead of dyads.

Future research should further explore unaddressed LLREs in L2-HL dyads in order to identify patterns that might explain their occurrence, such as learners' socio-histories, motivations, and task orientation. Another area to investigate is the emergence of other types of MT (e.g., grammatical) and determine their frequency in comparison to lexical MT among advanced learners. Finally, in this study, many LLREs were solved with assistance from a learner taking an expert role. The question remains if the emergence of experts is as frequent in less proficient dyads or if this stands as a unique feature to high-proficiency learners working together.

CONCLUSION

The purpose of this study was to investigate lexical MT in relation to high-proficiency learners, both HLs and L2s, as they engaged in a text reconstruction task. This investigation was carried out through the analysis of LLRE mechanics and uses of MT. Findings demonstrated that learners targeted mostly word meaning with few exchanges on spelling and pronunciation. LLRE frequencies were comparable across dyads, although L2s appeared to initiate more episodes than

HLs. Moreover, during a debriefing interview, learners explained that much inferencing was not verbalized. This suggests that these high-proficiency learners were able to process questions internally in their transition toward self-regulated learning.

As a function of the task, learners were free to engage in English or Spanish and MT was produced in both languages. Although learners were capable of producing MT in Spanish, they gravitated toward English, thus suggesting that English remained the preferred language for metalinguistic functions. Most LLREs were solved correctly, some collaboratively when both partners worked together and others through mediation provided by one partner taking an expert role. Forms of mediation included providing meaning for unknown items, synonyms and examples of the item in a different context, spelling out words, and modelling pronunciation.

REFERENCES

- ACTFL (2012). *ACTFL proficiency guidelines 2012*. White Plains, NY: ACTFL. Retrieved from https://www.actfl.org/sites/default/files/pdfs/public/ACTFLProficiencyGuidelines2012_FIN_AL.pdf
- Alegria de la Colina, A., & García Mayo, M. (2007). Attention to form across collaborative tasks by low-proficiency learners in an EFL setting. In M. García Mayo (Ed.), *Investigating tasks in formal language learning* (pp. 91–116). Clevedon, UK: Multilingual Matters.
- Aljaafreh, A., & Lantolf, J. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *Modern Language Journal*, 78(4), 465–483.
- Antón, M. (1999). The discourse of a learner-centered classroom: Sociocultural perspectives on teacher-learner interactions in the second-language classroom. *Modern Language Journal*, 83(3), 303–318.
- Antón, M., & DiCamilla, F. (1998). Socio-cognitive functions of L1 collaborative interaction in the L2 classroom. *The Canadian Modern Language Review*, 54(3), 314–342.
- Benmamoun, E., Montrul, S., & Polinsky, M. (2013). Heritage languages and their speakers: Opportunities and challenges for linguistics. *Theoretical Linguistics*, 39(3–4), 129–181.
- Benson, P. (2006). Autonomy in language teaching and learning. *Language Teaching*, 40, 21–40.
- Bowles, M. (2011). Exploring the role of modality: L2-heritage learner interactions in the Spanish language classroom. *Heritage Language Journal*, 8(1), 30–64.
- Bowles, M., Adams, R., & Toth, P. (2014). A comparison of L2–L2 and L2–heritage learner interactions in Spanish language classrooms. *Modern Language Journal*, 98(2), 497–517.
- Brooks, F., & Donato, R. (1994). Vygotskian approaches to understanding foreign language learner discourse during communicative tasks. *Hispania*, 77(2), 264–272.
- Brooks, F., Donato, R., & McGlone, J. V. (1997). When are they going to say “it” right? Understanding learner talk during pair-work activity. *Foreign Language Annals*, 30(4), 524–541.
- Centeno-Cortés, B., & Jiménez Jiménez, A. (2004). Problem-solving tasks in a foreign language: The importance of the L1 in private verbal thinking. *International Journal of Applied Linguistics*, 14(1), 7–35.
- Davies, M. (2002). Corpus del Español: 100 million words, 1200s-1900s. Retrieved November 10, 2011, from <http://www.corpusdoportugues.org>

- DiCamilla, F., & Antón, M. (1997). Repetition in the collaborative discourse of L2 learners: A Vygotskian perspective. *The Canadian Modern Language Review*, 53(4), 609–633.
- DiCamilla, F., & Antón, M. (2012). Functions of L1 in the collaborative interaction of beginning and advanced second language learners. *International Journal of Applied Linguistics*, 22(2), 160–190.
- Dobinson, T. (2001). Do learners learn from classroom interaction and does the teacher have a role to play? *Language Teaching Research*, 5(3), 189–211.
- Donato, R. (2000). Sociocultural contributions to understanding the foreign and second language classroom. In J. Lantolf & S. Thorne (Eds.), *Sociocultural theory and second language learning* (pp. 27–50). Oxford, UK: Oxford University Press.
- Ellis, R. (2000). Task-based research and language pedagogy. *Language Teaching Research*, 4(3), 193–220.
- Fortune, A. (2005). Learners' use of metalanguage in collaborative form-focused L2 output tasks. *Language Awareness*, 14(1), 21–38.
- Hulstijn, J. (1993). When do foreign-language readers look up the meaning of unfamiliar words? The influence of task and learner variables. *Modern Language Journal*, 77(2), 139–147.
- Hulstijn, J., Hollander, M., & Greidanus, T. (1996). Incidental vocabulary learning by advanced foreign language students: The influence of marginal glosses, dictionary use, and reoccurrence of unknown words. *Modern Language Journal*, 80(3), 327–339.
- Joe, A. (1995). Text-based tasks and incidental vocabulary learning. *Second Language Research*, 11(2), 149–158.
- Kagan, O. (2005). In support of a proficiency-based definition of heritage language learners: The case of Russian. *International Journal of Bilingual Education and Bilingualism*, 8(2–3), 213–221.
- Kagan, O., & Dillon, K. (2004). Heritage speakers' potential for high-level language proficiency. In H. Byrnes & H. Maxim (Eds.), *Advanced foreign language learning: A challenge to college programs*. Boston, MA: Heinle/Thompson.
- Kim, Y. (2008). The contribution of collaborative and individual tasks to the acquisition of L2 vocabulary. *Modern Language Journal*, 92(1), 114–130.
- Kim, Y., & McDonough, K. (2008). The effect of interlocutor proficiency on the collaborative dialogue between Korean as second language learners. *Language Teaching Research*, 12(2), 211–234.
- Kowal, M., & Swain, M. (1994). Using collaborative language production tasks to promote students' language awareness. *Language Awareness*, 3(2), 73–93.
- Kuiken, F., & Vedder, I. (2005). Noticing and the role of interaction in promoting language learning. In A. Housen & M. Pierrard (Eds.), *Investigations in instructed second language acquisition* (pp. 354–383). Berlin, Germany; New York, NY: Mouton de Gruyter.
- Lantolf, J. (2000). *Sociocultural theory and second language learning*. Oxford, UK: Oxford University Press.
- Lantolf, J. (2012). Sociocultural theory and the dialectics of L2 learner autonomy/agency. In P. Benson & L. Cooker (Eds.), *The applied linguistic individual: Sociocultural approaches to identity, agency, and autonomy* (pp. 1–22). London, UK: Equinox.
- Lantolf, J., & Appel, G. (1994). Theoretical framework: An introduction to Vygotskian perspectives on second language research. In *Vygotskian approaches to second language research* (pp. 1–32). Norwood, NJ: Ablex.

- Lantolf, J., & Thorne, S. (2006). Symbolic mediation and L2 learners: Metaphor, lexis, and narratives. In *Sociocultural theory and the genesis of second language development* (pp. 113–150). Oxford, UK: Oxford University Press.
- LaPierre, D. (1994). *Language output in a cooperative learning setting: Determining its effects on second language learning* (Master's thesis). Ontario Institute for Studies in Education: University of Toronto, Canada.
- Leeser, M. (2004). Learner proficiency and focus on form during collaborative dialogue. *Language Teaching Research*, 8(55), 55–81.
- Mackey, A., & Gass, S. (2005). *Second language research: Methodology and design*. New York, NY: Routledge.
- Martin, C. (2010). Assessing oral proficiency of adult learners, “heritage” and “native” speakers using the IRL descriptions and ACTFL proficiency guidelines: Considering the challenges. *Russian Language Journal*, 60, 169–183.
- Martínez, G. (2003). Classroom based dialect awareness in heritage language instruction: A critical applied linguistic approach. *Heritage Language Journal*, 1(1), 44–56.
- Montrul, S. (2009). Knowledge of tense-aspect and mood in Spanish heritage speakers. *International Journal of Bilingualism*, 13(2), 239–269.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge, UK: Cambridge University Press.
- Norris, J., & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, 50(3), 417–528.
- Potowski, K., Jegerski, J., & Morgan-Short, K. (2009). The effects of instruction on linguistic development in Spanish heritage language speakers. *Language Learning*, 59(3), 537–539.
- Ross-Feldman, L., & Gass, S. (2005). Task-based interactions in classroom and laboratory settings. *Language Learning*, 55(4), 575–611.
- Scott, V., & De la Fuente, M. J. (2008). What's the problem? L2 learners' use of the L1 during consciousness-raising, form-focused tasks. *Modern Language Journal*, 92(1), 100–113.
- Storch, N. (1999). Are two heads better than one? Pair work and grammatical accuracy. *System*, 27(3), 363–374.
- Storch, N. (2002). Relationships formed in dyadic interaction and opportunity for learning. *International Journal of Educational Research*, 37, 305–322.
- Storch, N. (2008). Metatalk in a pair work activity: Level of engagement and implications for language development. *Language Awareness*, 17(2), 95–114.
- Potowski, K., Jegerski, J., & Morgan-Short, K. (2009). The effects of instruction on linguistic development in Spanish heritage language speakers. *Language Learning*, 59(3), 537–539.
- Suzuki, W., & Itagaki, N. (2007). Learner metalinguistic reflections following output-oriented and reflective activities. *Language Awareness*, 16(2), 131–146.
- Suzuki, W., & Itagaki, N. (2009). Linguaging in grammar exercises by Japanese EFL learners of differing proficiency. *System*, 37, 217–225.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235–256). New York, NY: Newbury House.
- Swain, M. (1998). Focus on form through conscious reflection. In C. J. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 64–83). Cambridge, UK: Cambridge University Press.

- Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. Lantolf (Ed.), *Sociocultural theory and second language acquisition* (pp. 97–114). Oxford, UK: Oxford University Press.
- Swain, M. (2001a). Examining dialogue: Another approach to content specification and to validating inferences drawn from test scores. *Language Testing*, 18(3), 275–302.
- Swain, M. (2001b). Integrating language and content teaching through collaborative tasks. *Language Teaching*, 18(3), 275–302.
- Swain, M. (2006). Languageing, agency and collaboration in advanced language proficiency. In H. Byrnes (Ed.), *Advanced language learning: The contribution of Halliday and Vygotsky* (pp. 95–108). London, UK: Continuum.
- Potowski, K., Jegerski, J., & Morgan-Short, K. (2009). The effects of instruction on linguistic development in Spanish heritage language speakers. *Language Learning*, 59(3), 537–539.
- Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics*, 16(3), 371–391.
- Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *Modern Language Journal*, 82(3), 320–337.
- Swain, M., & Lapkin, S. (2002). Talking it through: Two French immersion learners' response to reformulation. *International Journal of Educational Research*, 37, 285–304.
- Swain, M., Lapkin, S., Knouzi, I., Suzuki, W., & Brooks, L. (2009). Languageing: University students learn the grammatical concept of voice in French. *Modern Language Journal*, 93, 5–29.
- Tocaimaza-Hatch, C. (2015). An analysis of Spanish L2 learners' orientation through activity theory. *Foreign Language Annals*, 48(3), 491–510.
- Valdés, G. (1989). Teaching Spanish to Hispanic bilinguals: A look at oral proficiency testing and the proficiency movement. *Hispania*, 72(2), 392–401.
- Valdés, G. (2001). *Learning and not learning English: Latino students in American schools*. New York, NY: Teachers College Press.
- Vygotsky, L. (1986). *Thought and language*. (A. Kozulin, Ed.). Cambridge, MA: MIT Press.
- Wajnryb, R. (1990). *Grammar dication*. Oxford, UK: Oxford University Press.
- Watanabe, Y. (2008). Peer–peer interaction between L2 learners of different proficiency levels: Their interactions and reflections. *The Canadian Modern Language Review*, 64(4), 605–635.
- Watanabe, Y., & Swain, M. (2007). Effects of proficiency differences and patterns of pair interaction on second language learning: Collaborative dialogue between adult ESL learners. *Language Teaching Research*, 11(2), 121–142.

APPENDIX A

Linguistic Background Questionnaire

1. What is your first language?
2. What is your second language?
3. How old were you when you learned your second language?
4. How did you learn Spanish?
5. Who do you talk to in Spanish?
6. Which one is your strongest language, English or Spanish?

APPENDIX B

Dicto-comp

Mufasa

Ida es una chica de 27 años que vive con su cónyuge, Fernando, y un perro que se llama Mufasa. Ida y Fernando se casaron hace dos años y hace un año que acogieron a Mufasa como mascota familiar. Mufasa tiene un pelaje muy suave color café con pequeñas pintas blancas y grises. Mufasa tiene 3 años y es un perro muy activo y energético. Le gusta correr y travesear con otros perros en el parque. Mufasa es muy curioso y le gusta escaparse por debajo del vallado de la casa y merodear por las casas de los vecinos. Es un perro muy travieso. A Mufasa le gusta escarbar entre las plantas y las flores y a veces hace hoyos bastante profundos en el jardín.

Por la noche, Fernando, Ida y Mufasa se sientan cómodamente en una poltrona de color verde a ver televisión. Generalmente ven partidos de básquetbol; Fernando es fanático de los Spurs. Después de ver televisión, todos se van a dormir.

[Ida is a girl who is 27 years old and who lives with her husband, Fernando, and a dog named Mufasa. Ida and Fernando got married two years ago and a year ago they welcomed Mufasa as a family pet. Mufasa has very soft brown fur with small white and grey spots. Mufasa is three years old and is a very active and energetic dog. He likes to run and get into mischief with other dogs at the park. Mufasa is very curious and he likes to escape under the fence behind the house and prowl around the houses in the neighborhood. He is a very playful dog. Mufasa likes to dig in the plants and flowers and sometimes digs very deep holes in the garden.

In the evening Fernando, Ida and Mufasa sit comfortably in a green armchair to watch television. Usually they watch basketball – Fernando is a Spurs fanatic. After watching television, they all go to sleep.]

APPENDIX C

Text Reconstruction Activity

Instructions for Participants:

Les voy a leer un texto dos veces. La primera vez que lo leo, solamente lo pueden escuchar. La segunda vez pueden tomar notas que van a usar para reconstruir el texto.

A medida que reconstruyen el texto, tienen que asegurarse de incluir estas palabras clave.

Una vez reconstruido el texto, lo van leer en voz alta y grabarlo.

Pueden usar inglés en la conversación si es necesario.

[I am going to read a text twice. The first time I read it, you can only listen to it. The second time, you can take notes that you will use to reconstruct the text. As you reconstruct the text, you need to make sure to include these target words.

Once you finish reconstructing the text, you will read it out loud and record it.

You may use English in your conversation if necessary]

NOTES

1. More recently, Swain (2006) introduced the term *linguaging*. Linguaging is verbalization that is either written or oral and includes private speech, or talk to the self.
2. Although not a certified rater herself, the researcher has received training and carried out OPI practices assessed by certified ACTFL raters.