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Testing the Interface Hypothesis: Acquisition of complex syntax and modality in L2 Spanish

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Abstract

Numerous studies have investigated the role of morphosyntactic variability or vulnerability at the pragmatic/semantic-syntactic interface (Prévost & White, 2000; Sorace, 2000; Haznedar, 2003; Lardiere, 2005; McCarthy, 2008; Iverson, Kempchinsky, & Rothman, 2008; Slabakova, 2009; Massery & Fuentes, 2014; Cuza, Guijarro-Fuentes, Pires, & Rothman, 2012; Santoro, 2012; among others). More recently, the Interface Hypothesis, originally put forth by Sorace and Filiaci (2006), has been a focal point within the generative framework (Tsimplici & Sorace, 2006; Sorace & Serratrice, 2009; Slabakova, 2009; Slabakova, Kempchinsky, & Rothman, 2012; Rothman, 2009; Lillo-Martin & Quadros, 2011; Montrul, 2011; Sorace, 2011; White, 2011; Kraš, 2012; Park, 2013; Sharwood Smith, 2013). In the following cross-sectional study, we provide evidence in favor of the Interface Hypothesis by examining L1 and L2 perceptions of complex nominal clauses (i.e., narrow syntax) embedded with deontic (syntax-semantics) and epistemic (syntax-discourse) modality in Spanish. In doing so, we demonstrate that advanced learners struggled more with epistemic environments than they did with deontic environments. Furthermore, the results of our study provide additional support for Slabakova, Kempchinsky, and Rothman (2012), whose research identifies a clear developmental trajectory in acquiring advanced interface properties.

Keywords Second Language Acquisition, Complex Syntax, Interface Hypothesis, Epistemic and Deontic modality, Optionality in L2

1. Introduction

Numerous studies have investigated the role of morphosyntactic variability or vulnerability at the pragmatic/semantic-syntactic interface (Prévost & White, 2000; Sorace, 2000; Haznedar, 2003; Lardiere, 2005; McCarthy, 2008; Iverson et al., 2008; Slabakova, 2009; Massery & Fuentes, 2014; Cuza et al., 2012; Santoro, 2012; Antonova-Ünlü, 2015; among others). More recently, the Interface Hypothesis (also referred to as the IH framework throughout our investigation), originally put forth by Sorace and Filiaci (2006), has been a focal point within the generative framework of L2 acquisition (Tsimplici & Sorace, 2006; Sorace & Serratrice, 2009; Slabakova, 2009; Slabakova et al., 2012; Rothman, 2009; Lillo-Martin & Quadros, 2011;

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Montrul, 2011; Sorace, 2011; White, 2011; Kraš, 2012; Park, 2013; Sharwood Smith, 2013). The fundamental principles that drive the Interface Hypothesis include the ability to explain residual variability during advanced stages of L2 acquisition³, and distinguishing between learners' ability to acquire narrow syntax and more complex discourse-dependent structures, which is where syntax and cognition intersect (Sorace 2011).

A number of earlier works support the validity of this theory, while others have questioned its capacity to truly explain residual optionality at advanced stages of acquisition. In addition, even though the Interface Hypothesis was originally posited to explain learners' difficulties during endstate grammars (i.e., primarily near-native speakers of L2), it has recently been extended to observe acquisition behaviors of intermediate and advanced learners (see Sorace & Filiaci, 2006; Slabakova et al., 2012; Rothman, 2009; Sorace, 2011; White, 2011; Lardiere, 2011; Kraš, 2012; Park, 2013; and Antonova-Ünlü, 2015, for example), as noted by Slabakova et al. (2012). Moreover, studies that employ cross-sectional research designs, such as those of Slabakova et al. (2012), Rothman (2009), Kraš (2012), and Park (2013), allow investigators to identify patterns that arise and change over time, thereby facilitating projection of endstate grammars as they relate to syntax-discourse and syntax-semantic interfaces.

Slabakova (2011) explains that "structures interfacing with formal features could be acquired and processed differently from structures interfacing with contextual features, leading to residual optionality at near-native levels..." (p. 89). Similarly, Sorace (2011) maintains that "language structures involving an interface between syntax and other cognitive domains are less likely to be acquired completely than structures that do not involve this interface" (p. 1). In agreement with earlier research, Kraš (2012), explains that "narrow syntax and internal interfaces can be completely acquired in the L2, whereas this is not necessarily true of properties relating to external interfaces" (p. 114). For the present study, we assume the position taken by, as well as employ the terminology used in, Sorace and Serratrice (2009). In their research, the investigators state that "the syntax-semantic interface involves formal features and operations within syntax and Logical Form, whereas the syntax-discourse interface involves pragmatic conditions that determine appropriateness in context" (Sorace & Serratrice, 2009, p. 197). From this point forward, the ideas presented in their study will serve as our point of departure.

To summarize, and in accordance with the explanations provided by the researchers mentioned in this section of our paper (Sorace & Serratrice, 2009; Slabakova et al., 2012; Kraš, 2012), there appear to be two distinct processes at work: (1) understanding of basic grammatical principles – or narrow syntax at the internal interface; and (2) knowledge of how grammatical principles are used in context for communicative purposes, a feature which White (2007), Sorace and Serratrice (2009), and Slabakova (2011) refer to as the syntax-discourse (or external) interface. In order to demonstrate support for the Interface Hypothesis, results of the data should

³ The Interface Hypothesis is not limited to studies in second language acquisition alone, as it was eventually extended to bilingual first language acquisition and initial stages of language attrition.

show that proficient learners are able to successfully construct and/or identify specific elements of language, including formal, semantic, and even phonological features (Rothman, 2009), while simultaneously demonstrating non-target-like behaviors in environments where pragmatics intersects with syntax. The impact of residual L1 features is not entirely clear within IH framework, although interference of learners' first language during later stages of acquisition is expected to impact L2 performance in discourse-dependent environments (see Sorace & Filiaci, 2006; Slabakova et al., 2012; Collentine, 2010).

The remainder of our paper is structured as follows: (1) we first provide a review of previous studies that center on the Interface Hypothesis, presenting research that both supports and challenges the IH framework; (2) second, we include a brief theoretical discussion of epistemic and deontic modality, followed by a review of studies that support our modal classifications; (3) we then introduce the methodology used to carry out our study, continued by a discussion of our results and findings, ultimately arguing in favor of the Interface Hypothesis.

1.1. Previous Studies

Demonstrating support for the Interface Hypothesis is a study conducted by Tsimpli and Sorace (2006), whose research involved twenty-seven adult Russian learners of Greek⁴; none of the participants recruited for the research had received formal language training prior to the study. The learners were allocated to one of three groups, depending on the number of years they had spent residing in the country (i.e., Greece) at the time of the study. Tsimpli and Sorace (2006) investigated learners' ability to distinguish between focus (i.e., a grammatical feature subject to structural restrictions in the left periphery) and clitic-left dislocation, also referred to as topicalization: a process that requires an accurate identification and understanding of previously stated information for felicitous interpretation or output. Results of the data revealed that all participants (beginning through advanced stages of acquisition) successfully analyzed structures involving focus (Tsimpli & Sorace, 2006). Topicalization (a process which requires pragmatic knowledge), however, caused problems for learners, even at advanced levels of L2, as appropriate interpretation was constrained by discourse features.

In accordance with Tsimpli and Sorace (2006), Slabakova et al. (2012) presented results that fell within the parameters of the IH framework. For their cross-sectional study, the researchers centered on clitic-left dislocation and focus fronting. Slabakova et al. (2012) maintain that specific syntactic properties of clitic-left dislocation (syntax-discourse) and focus fronting (syntax-semantics) – a procedure similar to that of English – are determined by subset features that have been shown to cause variability, even among highly proficient learners.

⁴ As one reviewer points out, while Greek is a [+pro-drop] language, Russian is only partially pro-drop.

Eighty-eight L1 English speakers participated in the investigation and several tasks were employed during the study. Among these exercises was a proficiency test used to examine L2 syntactic awareness of clitic-left dislocation and focus fronting. The researchers subsequently distributed a felicity judgment task that required learners to choose among a variety of syntactic environments and identify the structure that best represented a corresponding visual stimulus; all items displayed varying levels of grammaticality as a result of felicitous and infelicitous clitic distribution and/or availability in a given structure.

Results of the data revealed that near-native and advanced learners were generally successful in their analyses of the environments tested – a conclusion that actually goes against predictions made by the Interface Hypothesis. With this said, however, Slabakova et al. (2012) did find support for the Interface Hypothesis in that near-native and advanced learners' performance deviated from that of L1 in highly-nuanced subsets of clitic-left dislocation; this behavior was demonstrated by learners' inaccurate analyses of clitic availability and/or placement in environments where a clitic and antecedent were co-referenced. Learners were able to successfully identify errors in focus-fronting environments, however, as a result of its straightforward and English-like mapping at spell-out.

In addition to the results reported previously, Slabakova et al. (2012) identified a clear developmental trajectory in L2 acquisition of interface properties. In their study, the researchers argue that learners first acquired the syntactic principles underlying clitic distribution; second, they demonstrated knowledge of syntactic-semantic properties, a behavior displayed by participants' high performance on tasks involving focus fronting; third, advanced learners continued to indicate vulnerability at the syntax-discourse external interface, which was made apparent by their over-acceptance of objects in infelicitous environments. These findings are important in what follows, and we return to the results reported in Slabakova et al. (2012) in latter portions of our work.

Similar to the work of Slabakova et al. (2012), a very recent study by Antonova-Ünlü (2015) also demonstrated support for the IH hypothesis. In her study, the focus was L2 acquisition of case markers in Turkish among highly proficient participants whose first language was Russian. According to Antonova-Ünlü, case markers in Turkish involve morphosyntactic, semantic and discourse-related features that often require pragmatic understanding for accurate interpretation. Of the six case markers in Turkish, the accusative case marker is the only one that has the ability to assume a non-obligatory status in multiple contexts; all other case markings are required by the grammar. Despite the flexibility of accusative case markers in Turkish, Antonova-Ünlü explains that there are specific instances in which they are obligatory: direct objects that possess [+definite] features, for example, must be marked with accusative case. Preverbal direct objects possessing [-definite] features, though, are often unmarked unless they appear with a possessive suffix (see Kraš, 2012); such parametric differences yield asymmetrical patterns among the two languages (i.e., Russian and Turkish), as objects with [+indefinite] features remain unmarked in learners' first language (i.e., Russian).

Data for this study were collected via oral narratives and later transcribed using CHILDES, an online program that allows researchers to analyze oral exchanges among interlocutors. The data were then evaluated by two native speakers of Turkish trained in linguistics and compared to data provided by L1 Turkish speakers, all of whom served as the control group. The results of the data show that, while the monolingual Turkish (i.e., control) group marked case accurately throughout the task, L2 participants made errors during the exercise. More specifically, of all six case markers in Turkish, only environments involving accusative case (i.e., case used to mark direct and indirect objects) proved difficult for the highly proficient learners – perhaps pointing to residual properties of learners' first language (i.e., Russian) in L2 Turkish.

In opposition to the research arguing in favor of the Interface Hypothesis (i.e., Tsimplici & Sorace, 2006; Slabakova et al., 2012; Antonova-Ünlü, 2015), Rothman (2009) found that the results of his study did not support the Interface Hypothesis. For his research, which investigated L2 acquisition of the null subject parameter, he recruited a total of fifty-five participants and observed their collective ability to accurately rank a variety of felicitous and infelicitous syntactic environments – all of which included null and overt subject pronouns in discourse-dependent (i.e., external interface) and syntax-driven (i.e., internal interface) environments.

In order to carry out his study, Rothman assigned each participant to one of three groups: (a) L2 learners of Spanish at the intermediate-level; (b) L2 learners of Spanish at the advanced level; and (c) native Spanish speakers. All participants were asked to complete three distinct tasks, each of them requiring some form of production and/or pragmatic or grammatical judgment. Using a 1-5 interval scale, where '1' referred to an awkward or unnatural structure and '5' referred to a completely natural-sounding stimulus (as perceived by the participant), Rothman asked learners to rank the appropriateness of a variety of syntactic items in different contexts.

The results of the study indicate that native Spanish speakers and advanced learners of the language performed similarly in contexts where the use of overt subject pronouns relied on a deeper pragmatic understanding of a given item. In fact, the difference between the advanced group and native speakers was not statistically significant on any of the tasks, unlike the intermediate learners, whose results consistently deviated from the other two groups. Contributing to their lower scores in discourse-dependent environments was intermediate-level learners' over-acceptance of the null subject parameter, a feature not found in learners' first language (i.e., no evidence of L1 interference). The latter of these findings, combined with advanced learners' near-native behavior on tasks involving external interface properties, did not fit within the parameters outlined in the IH framework.

In agreement with Rothman (2009), Kraš did not find support for the Interface Hypothesis. For her study, she tested three distinct syntactic environments: (a) environments without clitics; (b) environments with infinitival verbs followed by clitics; and (c) VPs preceded by clitics. Using Magnitude Estimation, Kraš (2012) asked learners to numerically rank their preferences for the different structures in relation to a pre-selected stimulus.

The results of the data reveal that learners' performance, even those considered to be highly proficient, did not demonstrate target-like behavior. According to Kraš (2012), none of the participants in either group seemed to be cognizant of the auxiliary changes required by the verbs. Explained differently, despite their collectively advanced status, clitic climbing – which should trigger a learner's preference of *avere* (to have), not *essere* (to be) – did not prompt the use of the appropriate auxiliary change in infelicitous environments. Due to learners' unsuccessful auxiliary change at the syntax-semantics interface, Kraš (2012) concluded that participants had not fully acquired the linguistic properties predicted by the Interface Hypothesis at the time of the study.

Comparable to Kraš (2012), Park (2013) tested the validity of the IH framework. For this study, however, the research centered on L2 acquisition of English articles by L1 Korean participants. Park (2013), in agreement with Sorace and Serratrice (2009), suggests that the (in)definiteness feature in English exists as part of the syntax-discourse interface, considering that proper interpretation of its syntactic position in a sentence relies on an interlocutors' pragmatic understanding of a given environment. Contrary to the complexity of the (in)definiteness feature of discourse-dependent environments, Park suggests that the generic use of 'a' and 'the' is not discourse-dependent and should therefore be easier for learners to acquire. Park (2013) argues that sentences including [+generic] features make reference to the same generic NP, thereby restricting optionality.

For her study, seventy Korean learners of English were recruited; all participants were adults and considered to be advanced L2 speakers. A group of twenty-one L1 English speakers were also recruited for the control group. Using a timed-acceptability judgment task, Park (2013) tested learners' ability to identify NPs in (in)definite (i.e., discourse-dependent environments) and generic contexts (i.e., syntax-semantics environments). The results of the study show that learners performed better on discourse-dependent environments than they did on their structure-driven generic counterparts. Consequently, Park (2013) concluded that the Interface Hypothesis could not support the results of the data, as learners performed better on items that required pragmatic knowledge for felicitous interpretation.

To summarize, support for the Interface Hypothesis has been demonstrated by earlier research including Tsimpli and Sorace (2006) and Slabakova et al. (2012), and, more recently, Antonova-Ünlü (2015); recall that all three studies reported strong performance among learners on items involving syntax-semantic or rather, internal interface properties, while also demonstrating less successful performance on items involving discourse-driven features. Similarly, Tsimpli and Sorace (2006) and Slabakova et al. (2012) demonstrated that advanced learners performed more successfully on activities involving focus (i.e., internal interface) than they did on those involving topicalization and clitic-left dislocation (i.e., external interface).

In contrast to these findings, Rothman (2009), Kraš (2012), and Park (2013) could not explain their results using the Interface Hypothesis; recall that these studies reveal that near-native and advanced learners performed more successfully in syntax-discourse (i.e., external interface) environments than

they did in syntax-semantic environments (i.e., internal interface). Call to mind that Kraš (2012) found that advanced learners were unable to detect errors in structures involving auxiliary change in clitic climbing (i.e., syntax-semantic). Similarly, Park (2013) found that learners' highly accurate performance on tasks involving [+/- (in)definite] features in English, combined with their (i.e., participants') low performance on items involving generic features in L2, did not support the parameters outlined in the IH framework. Finally, Rothman's (2009) study shows that advanced learners' ability to detect the need for overt subject pronouns in pragmatically constrained environments, in addition to intermediate learners' over-acceptance of the null subject parameter, did not fit within the parameters outlined by the Interface Hypothesis.

Collectively, the studies reviewed in this portion of our work have investigated a number of grammar points in L2 acquisition, including the null subject parameter, distribution of clitics and auxiliary change, focus, topicalization, and the impact of (in)definite and generic features on overt subject pronouns, among others, using the IH framework. To our knowledge, no study has employed the IH framework to investigate L2 acquisition of complex nominal clauses with embedded epistemic and deontic modality. Therefore, in response to this deficiency, we tease apart the embedded modal subcategories that drive morphosyntactic/pragmatic behaviors of complex nominal clauses in L2 Spanish.

1.2. Epistemic and deontic modality: A theoretical perspective

Mood (i.e., subjunctive vs. indicative) is a grammatical term that refers to the morphosyntactic representation of modality (Collentine, 2010). Modality, though, is a semantic subcategory of mood, which has been explained as "any lexical or morphological expression of one's commitment to the truth-value of a statement" (Collentine, 2010, p. 40), and as "a category of linguistic meaning having to do with the expression of possibility and necessity" (Fintel, 2006, p. 20). More specifically, however, epistemic modality⁵ refers to varying degrees of truth-value and reality, as well as possibility and prediction (Winiharti, 2012). Deontic modality⁶, though, refers to influence, obligation, permission, and desire (Winiharti, 2012).

Some researchers have shown that the syntactic-semantic nature of deontic modality is less cumbersome for learners than epistemic modality. Iverson, Kempchinsky, and Rothman (2008), and Massery and Fuentes (2014), for instance, suggest that the less complex nature of deontic modality is due in part to its syntactic automaticity in complex nominal clauses. Matrix clauses connoting necessity, obligation, influence and desire of Subject X over Subject Y will always generate subjunctive morphology in subordinate nominal clauses (i.e., overt CP V²_[+subjunctive]) of Spanish, thereby reducing the number of morphosyntactic options in these contexts; this is not the case for complex nominal clauses of epistemic modality, however.

⁵ Winiharti (2012) summarizes work from Greenbaum (1996), which suggests that words like 'could', 'might', 'would', and 'should' belong to epistemic modality.

⁶ Winiharti (2012) summarizes work from Greenbaum (1996), which suggests that words like 'can', 'may', 'will', and 'shall' belong to deontic modality.

Unlike deontic modality, epistemic modality is difficult for learners to acquire because it requires pragmatic knowledge (Iverson et al., 2008; Massery & Fuentes, 2012) for proper discursal use in communication. Take the following examples, for instance.

(1)

Creo que él está en clase.

I believe-1p-sing [CP [C that [IP [he is-3p-sing-ind in class]]

'I believe that he is in class.

(2)

No creo que él esté en clase.

I do not believe-1p-sing [CP [C that [IP [he is-3p-sing-sub in class]]

'I do not believe that he is in class'.

By looking at examples 1 and 2, we observe that not only do such utterances require morphological alternations in the subordinate clause, but they also involve knowledge of truth-value nuances. Additional complications may arise in situations where the verb *dudar* ('to doubt') is used instead of *no creer* ('not to believe') or *no pensar* ('not to think'), as the inclusion of the negative lexical symbol *no* produces opposite meanings among matrix verbs. What's more, even though *no dudar* ('not to doubt') is semantically equivalent to *creer* ('to believe') and *pensar* ('to think'), it is morphosyntactically equivalent to *no creer* ('not to believe') and *no pensar* ('not to think'⁷).

1.3. Previous studies in epistemic and deontic modality

Over the last ten years, studies in second language acquisition research (Tamaji, 2007; Borganovo, Bruhn de Garavito & Prévost, 2008; Iverson et al. 2008; Massery & Fuentes, 2014; Jabbari & Sedghi, 2015) have investigated learners' acquisition of epistemic and deontic modality and have demonstrated that learners often struggle with epistemic environments (i.e., syntax-discourse interface). Iverson et al. (2008), for example, found that advanced learners' performance differed from that of native Spanish speakers only on items that included negated epistemic environments; advanced learners' performance on structures involving deontic modality, however, was highly target-like in comparison to the intermediate-level learners, whose judgments were significantly distinct from the other two groups.

In agreement with Iverson et al. (2008), Jabbari and Sedghi (2015) investigated L2 acquisition of deontic and epistemic modality of Persian speakers studying English as a second language. In their study of thirty-four intermediate and advanced learners, the researchers found that all participants had fully acquired modal auxiliaries referring to contexts of simple permission and obligation, such as 'can' and 'must' (i.e., deontic), for example. In opposition to these results, however, the modal auxiliary 'may', connoting possibility (i.e., epistemic), resulted in collectively low scores.

⁷ See Appendix B for a detailed illustration of idiosyncratic behaviors of epistemic modality in Spanish.

Massery and Fuentes (2014) is among the most relevant research to our current investigation. In their study of approximately one hundred and fifty participants, they (i.e., the investigators) found that learners' performance was highly accurate in deontic environments (i.e., syntax-semantics) at all levels of acquisition; epistemic environments (i.e., syntax-discourse), however, yielded varied outcomes and a low accuracy rate among most participants, including those at advanced stages of acquisition.

The combined results of the studies mentioned in this section of our investigation suggest that learners experience greater difficulty on items involving truth-value judgments (i.e., epistemic modality). These findings support those of previous studies; recall that collectively Iverson et al., along with Massery and Fuentes (2014), found that advanced learners of Spanish demonstrated highly target-like ability in deontic environments (i.e., syntax-semantics), while differing significantly from native speakers on items involving epistemic (i.e., syntax-discourse) stimuli. In accordance with these studies, Jabbari and Sedghi (2015) found that auxiliary verbs connoting possibility (i.e., epistemic/external domain) caused more problems for learners than those referring to permission and obligation (i.e., deontic/internal domain).

Based on the results presented in Iverson et al. (2008), Massery and Fuentes (2012), and Jabbari and Sedghi (2015), all of which found learners' performance in deontic environments to be more target-like than their performance on epistemic structures, we consider deontic modality as the syntax-semantics interface and epistemic modality as the syntax-discourse interface. Although L2 acquisition of deontic and epistemic modality has been investigated repeatedly in terms of morphological variability (Prévost & White, 2000; Sorace, 2000; White, 2003; Sorace, 2005; Iverson et al., 2008; Massery & Fuentes, 2014; among others), to our knowledge, no study has researched L2 acquisition of these modal subcategories within the IH framework. Therefore, in accordance with the criteria outlined by the Interface Hypothesis (refer to earlier sections of this article), combined with the semantic, pragmatic, and structural features of epistemic and deontic modality, we anticipate that the results of our data will support the following hypotheses:

1. *Internal interface syntax-semantic properties*: Advanced-level learners will demonstrate less vulnerability (i.e., less variation) in deontic environments (i.e., syntax-semantics interface).
2. *External interface syntax-discourse properties*: Advanced-level learners will demonstrate vulnerability (i.e., more variation) in epistemic environments (i.e., syntax-discourse interface).
3. *Signs of L1 (English) interference*: L1 interference will affect learners' perceptions of grammaticality in L2 Spanish, even at the advanced level.

In the following section of our work, we provide information about the L1 and L2 Spanish speakers who participated in our study. We then introduce the methodology we used to collect our data, followed by a discussion of the data-collection procedures we used for our research. Furthermore, we

present the design of our instrument and explain how it was distributed to the participants.

2. Methodology

2.1. Participants

Following the work of earlier studies, including Slabakova et al. (2012), for example, we employed a cross-sectional research design that involved a large number of participants and a variety of course levels, including Intermediate ($n = 169$), Post-Intermediate ($n = 20$) and Advanced ($n = 11$). Data were collected from approximately two hundred and twenty-three learners and native speakers combined ($n = 223$): two hundred L1 English speakers studying Spanish as a second language and twenty-three L1 Spanish speakers ($n = 23$). At the time of the study, learners were between the ages of eighteen and twenty-three and enrolled in Spanish courses at a small North-American university.

The intermediate-level learners were students completing the language requirement, while the post-intermediate learners were students who had begun taking classes beyond the four-semester language requirement and were working toward a major or minor in Spanish. We could not categorize these students (i.e., post-intermediate) as ‘advanced⁸’ as they did not meet the advanced-level criteria outlined by ACTFL. Advanced learners, however, had reported starting Spanish in high school and were completing upper-level content courses in literature and linguistics at the time of the study. All language and content courses were taught in an immersion-style classroom setting. Additionally, post-intermediate and advanced courses consisted of both native and non-native Spanish speakers.

Prior to distributing the instrument to the participants, a focus group was consulted that consisted of six L1 Spanish speakers, all of whom were seasoned language instructors at a large public university in northern Spain. For additional assurance regarding the instrument’s accuracy, it was evaluated four times by the L1 Spanish group; members of the focus group were not allowed to take part in the study, but rather served as editors and examiners of the instrument. We chose not to include learners taking first-semester Spanish, as they would not have been exposed to complex syntax, or the subjunctive mood, at the time of the study. Over a ten-day period, a total of fifteen classrooms were visited based on overall scheduling,

⁸ Although we did not classify the advanced learners as near-native speakers, we did consider them to be ‘advanced’ because their collective profiles complied with advanced-level criteria outlined by the ACTFL guidelines. Our analysis is supported by earlier investigations, including Rothman (2009), Kraš (2012), and Park (2013), for example, who referred to their most proficient participants as ‘advanced’. Furthermore, Slabakova et al. (2012) point out that authors including Lardiere (2011) and White (2011), for example, have questioned why the IH framework centers on near-native stages of L2 acquisition. In doing so, Lardiere and White maintain that near-native and advanced learners face (or have faced) similar linguistic challenges. Therefore, in agreement with the research mentioned here, we argue that including advanced speakers as our highest level of proficiency is warranted based on earlier research in this area of inquiry.

availability, and instructors' willingness to allow data collection in their classrooms⁹.

2.2. Instruments

A grammaticality judgment task, which we refer to as the Syntax-Modality Perception Task (or S_yMP-T), was used to collect the data. S_yMP-T included sixteen stimuli clusters: fourteen clusters (i.e., 84 sentences) were analyzed, while two clusters (i.e., 12 sentences) were used as distracter items. Each cluster contained six distinct syntactic environments, which varied in overall design and level of grammaticality; three of the six structures in each cluster included overt CPs, followed by either V²_[+subjunctive], V²_[+indicative] or V²_[+infinitive]; the remaining three environments in each cluster included a null CP with V²_[+subjunctive], V²_[+indicative] or V²_[+infinitive]. All items (i.e., environments) were randomized within each cluster in order to avoid priming effects.

Epistemic and deontic clusters with overt and null CPs were distributed evenly throughout the instrument. This distribution was important because epistemic environments can select a subordinate clause with either a V²_[+indicative] or V²_[+subjunctive], depending on the context; complex nominal clauses of deontic modality in Spanish, however, always select overt CPs and V²_[+subjunctive], thereby reducing morphosyntactic options for accurate production. By separating epistemic and deontic clusters into separate submodalities, in addition to examining a variety of felicitous and infelicitous syntactic structures, we were able to tease apart two distinct interfaces: syntax-semantics (i.e., deontic modality) and syntax-discourse (epistemic modality).

Of the ninety-six structures evaluated by participants, a total of sixty-four items were considered for examination. Similar to the work of Sorace and Serratrice (2009), Slabakova et al. (2012), Rothman (2009), Kraš (2012), and Park (2013), we used a grammaticality judgment task and Of the ninety six structures rank each item against other environments within the same stimuli cluster, each of which included six sentences that possessed distinct levels of grammaticality (see Appendix A). We designed the study this way in order to examine learners' perceptions of varied yet similar structures. Much like the work of Rothman (2009), we asked participants to rank felicitous and infelicitous¹⁰ items using an interval scale that ranged from one to six (Rothman used 1-5): one reflected the least grammatical item in a series and

⁹ We did not control for sociolinguistic variables such as age, race, or gender in the present study. Such variables were not considered feasible or necessary for our data collection.

¹⁰ Previous research, including that of Iverson et al. (2008), Rothman (2009), Slabakova et al. (2012), Kraš (2012), and Massery and Fuentes (2012), for example, have included felicitous and infelicitous environments in their instruments as a way to measure learners' knowledge of specific grammar points. Recall that Kraš (2012) reported non-target-like behavior as a result of lacking L2 features that should have evoked auxiliary change in infelicitous environments. Similarly, Slabakova et al. (2012) awarded points for rejecting ungrammatical structures (2012). In other words, learners' rankings of ungrammatical structures, whether high or low, were considered to be as equally revealing as their (i.e., learners') rankings of grammatical structures.

six reflected the most grammatical (or natural-sounding) sentence structure within an individual cluster – as perceived by the participant.

Having explained the methodology of our study, we turn now to the results of the data, which are divided into several distinct parts: first, we discuss our findings for L2 learners as they relate to syntax-discourse (i.e., epistemic) and syntax-semantic (i.e., deontic) environments, focusing primarily on learners' performance cross-sectionally. Second, we analyze data provided by L1 Spanish speakers and, in doing so, we compare learners' behavior to that of native speakers, highlighting the differences between the groups – ultimately arguing in favor of the IH framework.

3. Findings

3.1. *Modal Analysis: Results for L2*

Previous research on morphosyntactic variability suggests that non-uniform and widespread responses among learners in relation to a specific grammar point indicates interlanguage variability (Sorace, 2000; Iverson et al., 2008; Massery & Fuentes, 2014; including others). The Interface Hypothesis extends earlier morphosyntactic research in L2 by proposing that learners experience greater difficulty with external interface properties (i.e., syntax-discourse) than they do with internal interface (i.e., syntax-semantics) properties. In accordance with this line of inquiry, we present the results of our data using boxplots in order to demonstrate variation among learners' responses to different syntactic environments. Short boxes indicate little variation and greater uniformity among learners' responses (i.e., implying less vulnerability), while longer boxes indicate a wider range of numerical rankings (i.e., implying greater vulnerability) in specific contexts. Additionally, the dense black line inside each box provides us with the median score of learners' responses for each environment.

In Figure 1, for example, we see that learners at the intermediate level perceived epistemic environments as more grammatical than their deontic counterparts. Post-intermediate and advanced levels, however, found deontic environments to be more accurate, although the long boxplot displayed by post-intermediate learners indicates that variability – and therefore vulnerability – existed among learners' perceptions of deontic structures.

Additionally, in Figure 1, it appears that advanced learners' rankings of epistemic environments demonstrate less variation (i.e., less vulnerability) among learners' responses, as displayed by the shorter boxplots; this is actually not the case, however. In fact, if we look closely at Figure 2, we notice that advanced learners' responses continued to vary in epistemic subcategories, indicating vulnerability and optionality at the external interface. These results support those reported in Slabakova et al. (2012), for example, who found that advanced learners displayed non-target-like behavior in highly nuanced subsets of clitic-left dislocation, despite an overall high performance on the completed tasks.

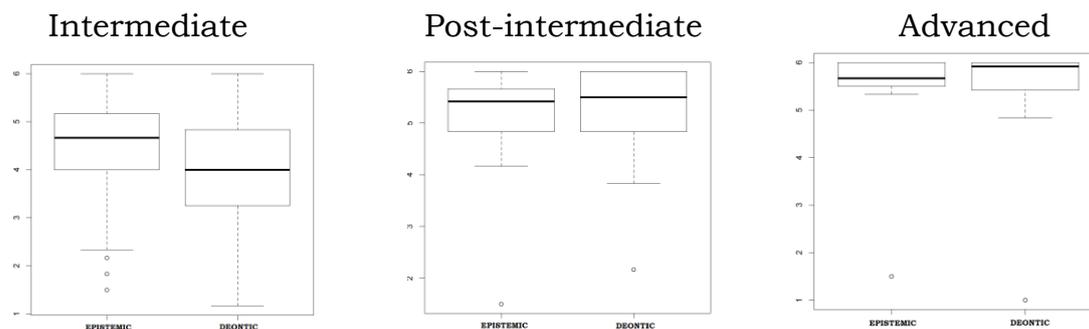


Figure 1. Cross-sectional results for learners' perceptions of epistemic and deontic modality

Figure 2 compares learners' perceptions of complex nominal clauses of deontic and epistemic modal subsets (i.e., epistemic_C[+indicative] and epistemic_C[+subjunctive]) at distinct levels of L2 acquisition. If we look at each level separately, we observe that learners at the intermediate level ranked epistemic_C[+indicative] structures higher than epistemic_C[+subjunctive] and deontic environments; the higher scores for epistemic_C[+indicative] environments suggest that L1 interference is at play, considering that indicative morphology is used more often than subjunctive morphology in complex nominal clauses of English; we return to these observations in later sections of our work.

At the post-intermediate and advanced levels of acquisition, though, we begin to notice higher rankings and less variation among scores (i.e., less vulnerability) in epistemic_C[+subjunctive] and deontic environments, indicating movement toward target-like behavior; intermediate and post-intermediate learners continue to display non-target-like behaviors at both interfaces, although an evolution in scores is also visible among these groups. Observe that post-intermediate learners' rankings of deontic modality (i.e., syntax-semantics) begin to rise and reflect more target-like behavior, as predicted by the Interface Hypothesis.

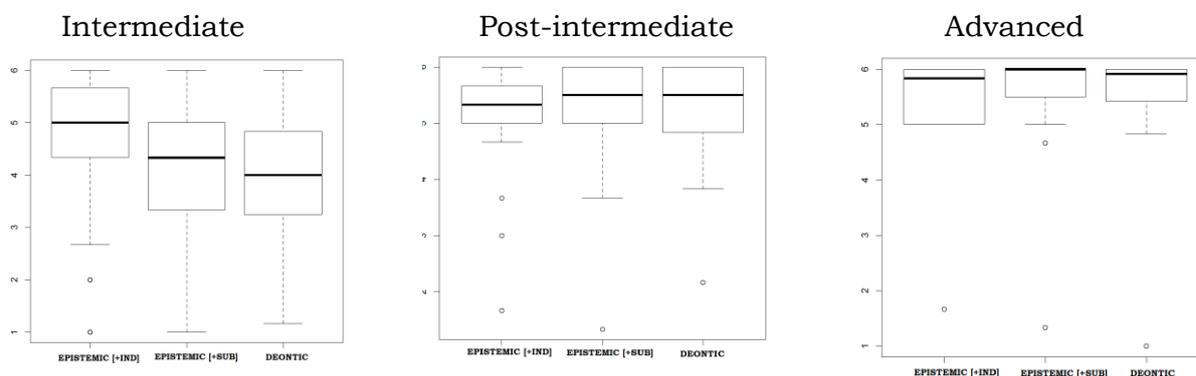


Figure 2. Cross-sectional results for learners' perceptions of epistemic and deontic modality

3.2. Modal Analysis: Results for L1

Moving on to results for L1 Spanish speakers, we look first at Figure 3, which shows that L1 participants ranked deontic (i.e., syntax-semantics) environments higher (i.e., more grammatical) than epistemic (i.e., syntax-discourse) structures, although there is noticeably less variation among learners' responses in these environments, especially at the intermediate level. Greater variation is observed among L1 Spanish speakers in epistemic environments, however, suggesting that some variability among L1 Spanish speakers occurs within the syntax-discourse interface (i.e., epistemic environments). This is not surprising, though, as L1 Spanish speakers' use of subjunctive and indicative mood has been documented in recent studies, such as Ladner (2014), for example.

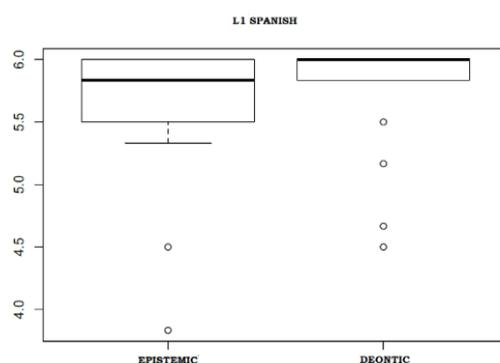


Figure 3. L1 scores for epistemic and deontic modality

If we separate the three distinct environments, looking exclusively at epistemic submodalities in Figure 4, we notice that L1 Spanish speakers' judgment of epistemic_[+indicative] environments was unanimous; this behavior is demonstrated by the dense black line that completely fills the boxplot for this environment. With this said, however, L1 Spanish speakers' judgments of epistemic_[+subjunctive] and deontic environments – both of which require $V^2_{[+subjunctive]}$ in the subordinate clause – reveal less concentration and greater variability than their epistemic_[+indicative] counterparts.

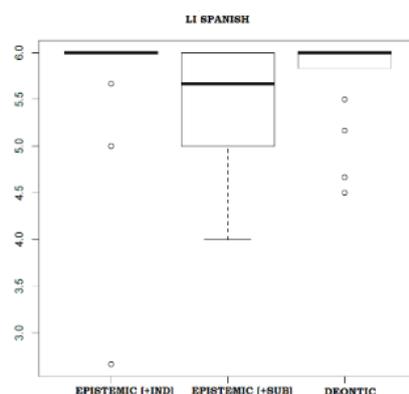


Figure 4. L1 scores for epistemic subcategories and deontic modality

3.3. Perceptions of complex nominal clauses: Results for L2

For the (narrow) syntactic analysis, we first considered a non-additive model for the observed scores in terms of 'environment', 'course level' and their

interaction. The results suggest that ‘environment’ and the interaction of ‘environment + course level’ were significant in the model. The small p-values of these variables, as shown in Table 1, suggest that learners’ grammatical perception of each syntactic structure affected their analyses of individual environments. The significance of the interaction term, ‘environment + course level’, also proposes that the effect the syntactic environment had on the observed scores was not constant for the different levels of learners’ acquisition. Note that, even though the interaction term was significant, ‘course level’ by itself was not; this finding indicates that the grammatical perceptions of individual participants were not truly explained by their respective course levels.

Table 1
Interaction of Environment & Level of instruction combined

	Df	Sum Sq	Mean Sq	F value	P-Value
Environment	5	617.677	123.535	153.6181	< 0.001
Comb. Level	2	0.002	0.001	0.0014	0.99
Env. + Comb. Level	10	57.77	5.777	7.1842	< 0.001

The ANOVA table (Table 1) only reports which variables were significant, but it does not provide further information as to how the environments were ranked, nor does it disclose how specific language levels performed on the task. To visualize this information, we need to look at the corresponding boxplots of the scores for all three levels, which are available in Figure 5. As stated previously, the longer boxes suggest widespread and varied responses among learners, which we argue here implies vulnerability and instability in learners’ interlanguage systems. The shorter boxes display a slightly more uniform performance among learners at the post-intermediate and advanced stages of acquisition, though, as predicted by the Interface Hypothesis.

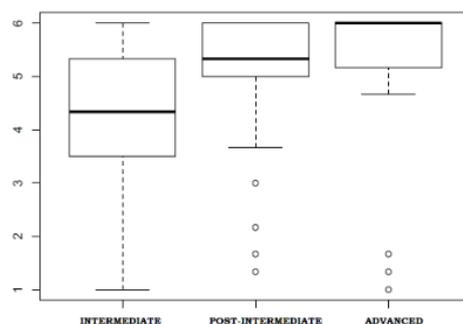


Figure 5. Scores vs. Level of Acquisition

Figure 6 reveals levels of concentration as they reflect learners’ perceptions of specific environments, while also going a step further than Figure 5 by allowing us to see how specific environments were ranked among learners. The results reported in Figure 6 point to a general preference among intermediate learners for environments that include overt CPs and indicative

morphology, which we will argue later follow English-like syntax, in accordance with examples provided in Koike and Klee (2013). At the same time, we demonstrate learners' general dislike for subjunctive clauses in null CP environments, suggesting that learners had acquired the basic syntactic principles of complex nominal clauses; these findings support those reported in Slabakova et al. (2012) and Massery and Fuentes (2012), for instance.

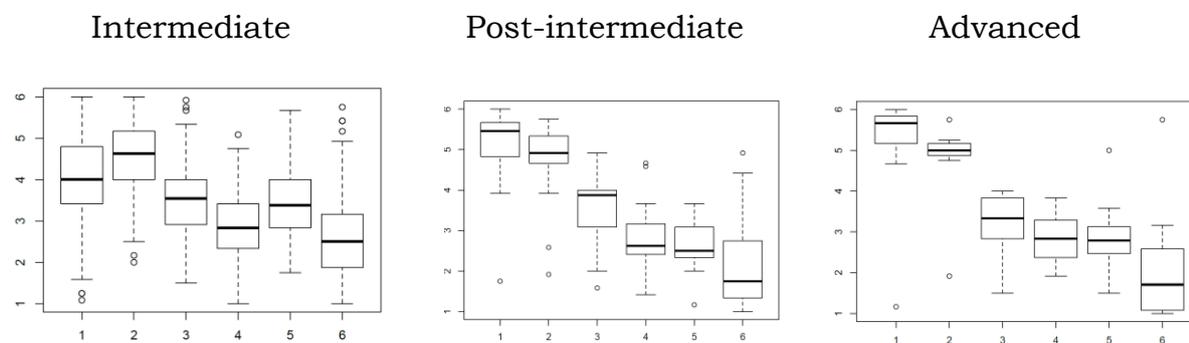


Figure 6. Environments and individual course levels

ENV 1	Overt CP $V_{2[+subjunctive]}$
ENV 2	Overt CP $V_{2[+indicative]}$
ENV 3	Overt CP $V_{2[+infinitive]}$
ENV 4	Null CP $V_{2[+subjunctive]}$
ENV 5	Null CP $V_{2[+indicative]}$
ENV 6	Null CP $V_{2[+infinitive]}$

3.4. Perceptions of complex nominal clauses: Results for L1

Returning now to our analysis of native Spanish speakers in Figure 7, we notice that L1 Spanish speakers found environment 1 (i.e., overt CP $V_{2[+subjunctive]}$) to be the most grammatical environment in the series. Environment 2 (overt CP $V_{2[+indicative]}$) was ranked as the second most grammatical structure in the series, followed by environments 4 (i.e., null CP $V_{2[+subjunctive]}$), 5 (i.e., null CP $V_{2[+indicative]}$), 3 (i.e., overt CP $V_{2[+infinitive]}$), and 6 (i.e., null CP $V_{2[+infinitive]}$). Figure 7 also suggests that L1 Spanish speakers' low ranking of environments 3 (i.e., overt CP $V_{2[+infinitive]}$) and 6 (i.e., null CP $V_{2[+infinitive]}$) indicates a preference for overt complementizers and $V_{2[+finite]}$ subordinate clauses. Unlike the results presented by learners, infinitive verbs, both in null and overt CP environments, were perceived as highly ungrammatical by L1 Spanish speakers.

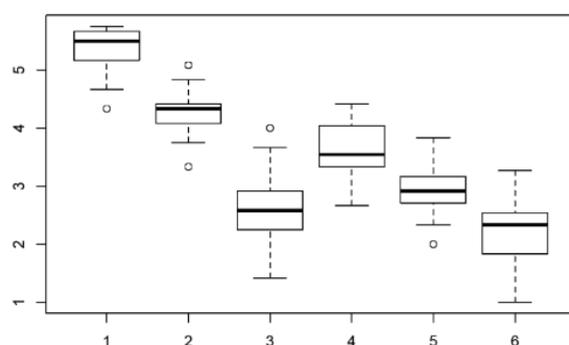


Figure 7. L1 Spanish speakers

ENV 1	Overt CP $V_{2[+subjunctive]}$
ENV 2	Overt CP $V_{2[+indicative]}$
ENV 3	Overt CP $V_{2[+infinitive]}$
ENV 4	Null CP $V_{2[+subjunctive]}$
ENV 5	Null CP $V_{2[+indicative]}$
ENV 6	Null CP $V_{2[+infinitive]}$

Figure 8 allows us to observe native Spanish speakers' perceptions of grammaticality in comparison to those of L2 learners' and, in doing so, we notice that, despite the diverse scores assigned to the different environments, post-intermediate and advanced learners' behaviors follow essentially the same trajectory as L1 Spanish speakers, at least to some extent. The most notable differences between learners and native speakers are found between their rankings of environments 3 (i.e., overt CP + $V^2_{[+infinitive]}$) and 4 (i.e., null CP $V^2_{[+subjunctive]}$); we discuss these findings in greater detail in subsequent sections of our research. Furthermore, intermediate learners' responses, as predicted by the Interface Hypothesis, diverge from the other groups in a number of ways, as explained throughout our work. In the following paragraphs, we continue with our discussion of the topics presented here and introduce the implications of our investigation.

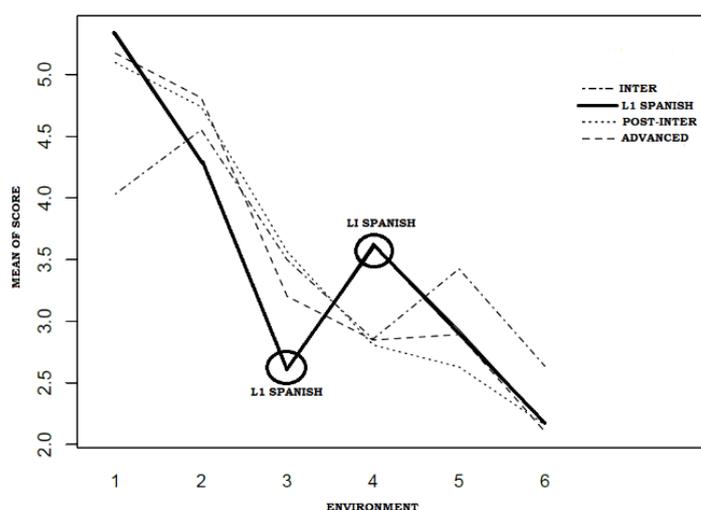


Figure 8. Interaction plot of Level with Environment

4. Conclusions and Discussion

As mentioned previously, earlier research on morphosyntactic variability suggests that non-uniform and widespread responses and intuitions among learners in relation to a specific grammar point implies optionality, variability, and/or vulnerability in learners' interlanguage (Sorace, 2000; Iverson et al., 2008; Massery & Fuentes, 2014; among others). The Interface Hypothesis extends morphosyntactic research in L2 by proposing that learners experience greater difficulty with external interface (i.e., syntax-discourse) properties than they do with internal interface (i.e., syntax-semantic) properties. Furthermore, narrow-syntax and syntax-semantic properties are thought to be acquirable with relative ease in comparison to syntax-discourse properties, where pragmatics and formal features intersect. Therefore, based on the parameters outlined by the IH framework, combined with the results reported in earlier research, we originally anticipated that learners would display more target-like behavior (and less variation) in environments of deontic modality (i.e., internal interface properties) than in environments of epistemic modality (i.e., external interface properties), even during advanced stages of L2 acquisition. The results reported in the previous sections of our work support these predictions. Call to mind that

Figure 2 demonstrates varying scores among learners in the dichotomous subdivisions of epistemic modality (i.e., epistemic_{C[+indicative]} vs. epistemic_{C[+subjunctive]}). These findings parallel the results reported in Slabakova et al. (2012), for example, who found that advanced learners displayed vulnerability in highly nuanced subsets of clitic-left dislocation, despite target-like behavior on items involving focus fronting.

In addition to these findings, we suggest that our research especially aligns with that of Slabakova et al. (2012), which identifies a developmental trajectory experienced by learners as they advance toward acquisition of external interface properties. According to their research, learners first acquire the basic syntactic principles of a given grammar point, followed by the “acquisition of syntax-semantic internal interface properties”, which ultimately gives way to acquisition of “syntax-discourse external interface properties” (p. 339); recall that Slabakova et al. argued that, prior to their study, participants had already acquired the syntactic principles that guide clitic distribution in L2 syntax; the researchers also explained that, as predicted by the Interface Hypothesis, focus-fronting environments (i.e., syntax-semantics) caused little difficulty for advanced learners, while clitic-left dislocation (i.e., syntax-discourse) continued to result in varied responses among proficient learners.

Comparable to Slabakova et al. (2012), the participants of our investigation demonstrated a general understanding of the underlying syntactic principles that govern and accommodate complex nominal clauses (i.e., narrow syntax) of deontic (i.e., internal interface) and epistemic (i.e., external interface) modality. Call to mind that participants of the study were able to detect errors in environment 4 (i.e., null CP V²_[+subjunctive]) – a feature not found in their (i.e., learners’) L1 – indicating movement toward target-like behavior and knowledge of fundamental syntactic properties of advanced syntax in L2 Spanish. Moreover, and in agreement with their research (i.e., Slabakova et al., 2012), the advanced learners in our study continued to demonstrate vulnerability and variability in epistemic environments (i.e., syntax-discourse), even during advanced stages of acquisition; rankings for deontic environments (i.e., syntax-semantics), however, gradually became more uniform and less diverse, as learners progressed in L2 – also in agreement with the Interface Hypothesis.

In addition to these findings, the results of our data highlight two major differences between L1 and L2 perceptions of grammaticality. In Figure 8, for instance, we observe that, while learners scored environment 3 (i.e., overt CP V²_[+infinitive]) higher than L1 Spanish speakers did, they also scored environment 4 (i.e., null CP V²_[+subjunctive]) lower (i.e., less grammatical) than L1 speakers did. The perceptual differences of these environments among L1 and L2 Spanish speakers does make sense, however. In English, most complex nominal clauses embedded with epistemic and deontic modality are formed with either indicative or infinitival morphology, depending on the matrix verb. The implication that L1 interference affected learners’ perceptions of environments 3 (i.e., overt CP V²_[+infinitive]) and 4 (i.e., null CP V²_[+subjunctive]) is upheld by Collentine (2010) and Koike and Klee (2013), who suggest that the following examples reflect L1 English interference in L2 Spanish.

3. **Quería que ella responder a la pregunta*¹¹.
I want-1p-sing [CP [C that [IP [I she respond-3p-sing.-inf. to the question]]
'I wanted her to respond to the question.'
4. **Quiero para él salir*¹².
I want-1p-sing [CP [C ∅ for [IP [I him leave -3p-sing.-inf.]]
'I want him to leave.'

In examples 3 and 4, we notice that the learner is mapping L1 features of English onto L2 syntax. In example 3, for instance, the complementizer phrase includes an overt CP followed by an infinitive verb. Similarly, the sentence in example 4 appears with a null CP, also followed by infinitival morphology. Furthermore, *él* ('he'), in example 3, receives accusative case from the head of CP, which differs from example 4, where *ella* ('she') assumes nominal case from the head of IP – just as it would in English (see Massery & Fuentes, 2012). Mapping errors like those found in examples 3 and 4 can be explained using earlier generative research by Radford (2004), for example, whose line of inquiry is further supported by Iverson et al. (2008), Collentine (2010), and Massery and Fuentes (2012). Collectively, their research suggests that complex nominal clauses of English, including overt and null CP structures, consist of *for*-infinitive (or *for*-deletion) verbs, a theory that allows us to directly align English and Spanish complex syntax¹³, thereby explaining why learners experience L1 interference in L2 acquisition of complex nominal clauses.

Throughout our work we have argued that the results of our study comply with the criteria outlined by the IH framework in the following ways: (1) advanced learners' rankings of deontic modality (i.e., syntax-semantics interface) demonstrated target-like behavior, as seen in Figures 1 and 3, while intermediate learners continued to diverge from the more advanced levels; (2) advanced learners' rankings of epistemic environments (i.e., syntax-discourse interface) displayed greater variation among learners, even at advanced stages of acquisition, while their scores for environments of deontic modality became more uniform and less diverse, as predicated by the Interface Hypothesis (refer to Figures 1 and 2); (3) learners' collectively low ranking of environment 4 (i.e., overt CP $V^2_{[+infinitive]}$) suggests that they (i.e., learners) were able to detect fundamental structural errors in complex nominal clauses with $V^2_{[+subjunctive]}$, thereby indicating acquisition of the narrow syntactic properties required for advanced L2 syntax, a result supported by Massery and Fuentes (2012)

¹¹ This example is taken from Koike and Klee (2013).

¹² This example is taken from Collentine (2010).

¹³ Similar analyses can be applied to structures involving epistemic modality, as demonstrated by the following examples:

5. **Creía que ella responder a la pregunta*.
I believe-1p-sing [CP [C that [IP [I she respond-3p-sing.-inf. to the question]]
'I believed that she responded to the question.'
6. **Dudo él estudiar*.
I doubt-1p-sing [CP [C ∅ [IP [I he study-3p-sing.-inf.]]
'I doubt (that) he studies.'

4.1. Summary

What makes our research different from earlier studies is that we fill a gap in second language acquisition literature through our “attempt to investigate the development of structures that belong to different interfaces”, as noted by Sorace (2011, p. 10). In addition to Sorace (2011), other investigators, including Collentine (2010¹⁴) and Antonova-Ünlü (2015), for example, have pointed out that a research focus such as ours is currently underrepresented in second language acquisition literature. In addition to these contributions, we offer further support for the results reported by Slabakova et al. (2012), who identify a three-tier acquisition process that learners experience as they acquire internal and external interface properties.

To summarize, with the present investigation, we have contributed to the IH debate, arguing in favor of the Interface Hypothesis, primarily by demonstrating that advanced learners’ behavior continued to display vulnerability in epistemic environments (i.e., external interface), where discourse and syntax intersect. And finally, following the work of Slabakova et al. (2012), we were able to tease apart learners’ acquisition of narrow-syntactic properties from syntax-semantic and syntax-discourse features, thereby supporting the identification of a tangible developmental process in L2 acquisition of advanced interface properties.

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¹⁴ Collentine (2010) maintains that the study of mood and modality exemplifies the notion of interface due to the fact that mood choice, in and of itself, is governed by “pragmatics and discourse requirements” (p. 41). Therefore, we continue with the ideas put forth by Collentine (2010) and argue that mood possesses dichotomous submodalities that have been shown to cause varying degrees of difficulty for L2 learners, which we argue is due to their distinct interface properties.

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Appendices

Appendix A

INSTRUCCIONES EN ESPAÑOL. En el siguiente ejercicio, usted verá dieciséis grupos de oraciones. Cada grupo incluye seis ejemplos que habrá que clasificar usando los números de uno a seis. **El número ‘6’ se aplicará a la frase que le resulte más gramatical; en cambio, el número ‘1’ se aplicará a la frase que Ud. encuentre menos correcta.** La oración que resulte ser la más correcta, según su perspectiva, servirá también como la “oración de referencia” – cada grupo tendrá la suya. Después de elegir la frase de referencia (es decir, la frase analizada como la más gramatical) habrá que clasificar las otras del grupo en relación a ésta. La escala empleada en cada grupo estará basada en la gramaticalidad de cada frase según la perspectiva del participante.

INSTRUCTIONS IN ENGLISH. In the following exercise, you will see sixteen groups of sentences. Each group includes six examples that you will rate using a numerical scale of one to six. **The number ‘6’ will be used to rate the sentence in each group that you find to be the most grammatically accurate, while the number ‘1’ will be used to rate the sentence that you find to be the least grammatically accurate.** You should rate each sentence in the group against the one you find to be the most grammatically accurate – each group is rated individually.

- | | | | | | |
|---------------------------|---|---|---|---|---------------------------|
| 6 | 5 | 4 | 3 | 2 | 1 |
| más gramatical | | | | | menos gramatical |
| (more grammatical) | | | | | (less grammatical) |
- 1.
- _____ María quiere que yo voy a la tienda mañana.
 _____ María quiere que yo ir a la tienda mañana.
 _____ María quiere yo vaya a la tienda mañana.
 _____ María quiere que yo vaya a la tienda mañana.
 _____ María quiere yo ir a la tienda mañana.
 _____ María quiere yo voy a la tienda mañana.
- 2.
- _____ Ángela busca un coche que es nuevo.
 _____ Ángela busca un coche que sea nuevo.
 _____ Ángela busca un coche que ser nuevo.
 _____ Ángela busca un coche ser nuevo.
 _____ Ángela busca un coche es nuevo.
 _____ Ángela busca un coche sea nuevo.

3.

- Lorena comenta que Miguel gaste mucho dinero.
- Lorena comenta que Miguel gasta mucho dinero.
- Lorena comenta Miguel gasta mucho dinero.
- Lorena comenta Miguel gastar mucho dinero.
- Lorena comenta Miguel gaste mucho dinero.
- Lorena comenta que Miguel gastar mucho dinero.

4.

- Juan exige que Marta trabaje cada fin de semana.
- Juan exige que Marta trabajar cada fin de semana.
- Juan exige que Marta trabaja cada fin de semana.
- Juan exige Marta trabajar cada fin de semana.
- Juan exige Marta trabaja cada fin de semana.
- Juan exige Marta trabaje cada fin de semana.

5.

- Alejandro cocina después de volver de la oficina.
- Alejandro cocina después de que volver de la oficina.
- Alejandro cocina después de vuelve de la oficina.
- Alejandro cocina después de que vuelve de la oficina.
- Alejandro cocina después de que vuelva de la oficina.
- Alejandro cocina después de vuelva de la oficina.

6.

- Elena duda Belén vivir con sus padres.
- Elena duda que Belén viva con sus padres.
- Elena duda Belén viva con sus padres.
- Elena duda que Belén vive con sus padres.
- Elena duda Belén vive con sus padres.
- Elena duda que Belén vivir con sus padres.

7.

- Espero que Jacobo estudiar para el examen.
- Espero Jacobo estudie para el examen.
- Espero Jacobo estudiar para el examen.
- Espero que Jacobo estudia para el examen.
- Espero Jacobo estudia para el examen.
- Espero que Jacobo estudie para el examen.

8.

- Francisco reconoce que Manuel esté en su casa.
- Francisco reconoce Manuel esté en su casa.
- Francisco reconoce que Manuel estar en su casa.
- Francisco reconoce Manuel está en su casa.
- Francisco reconoce Manuel estar en su casa.
- Francisco reconoce que Manuel está en su casa.

9.

- Raquel aconseja que David asistir a la reunión.
- Raquel aconseja David asistir a la reunión.
- Raquel aconseja que David asiste a la reunión.
- Raquel aconseja que David asista a la reunión.
- Raquel aconseja David asiste a la reunión.
- Raquel aconseja David asista a la reunión.

10.

- Pablo piensa su conocimiento es extenso.
- Pablo piensa que su conocimiento es extenso.
- Pablo piensa que su conocimiento ser extenso.
- Pablo piensa su conocimiento sea extenso.
- Pablo piensa que su conocimiento sea extenso.
- Pablo piensa su conocimiento ser extenso.

11.

- El general manda sus soldados ataquen al enemigo.
- El general manda que sus soldados ataquen al enemigo.
- El general manda que sus soldados atacan al enemigo.
- El general manda sus soldados atacan al enemigo.
- El general manda que sus soldados atacar al enemigo.
- El general manda sus soldados atacar al enemigo.

12.

- Mateo no cree que su jefe roba a los empleados.
- Mateo no cree su jefe robe a los empleados.
- Mateo no cree su jefe roba a los empleados.
- Mateo no cree que su jefe robe a los empleados.
- Mateo no cree su jefe robar a los empleados.
- Mateo no cree que su jefe robar a los empleados.

13.

- Penélope llama a sus padres antes de asistir a sus clases.
- Penélope llama a sus padres antes de que asistir a sus clases.
- Penélope llama a sus padres antes de que asista a sus clases.
- Penélope llama a sus padres antes de asista a sus clases.
- Penélope llama a sus padres antes de que asiste a sus clases.
- Penélope llama a sus padres antes de asiste a sus clases.

14.

- Marta pide que su hijo buscar trabajo.
- Marta pide su hijo busca trabajo.
- Marta pide que su hijo busque trabajo.
- Marta pide su hijo busque trabajo.
- Marta pide su hijo buscar trabajo.
- Marta pide que su hijo busca trabajo.

15.

- Estela teme que su esposo trabaja para la CIA.
- Estela teme su esposo trabaje para la CIA.
- Estela teme que su esposo trabajar para la CIA.
- Estela teme su esposo trabaja para la CIA.
- Estela teme que su esposo trabaje para la CIA.
- Estela teme su esposo trabajar para la CIA.

16.

- Sofía habla con una secretaria que es nueva.
- Sofía habla con una secretaria que ser nueva.
- Sofía habla con una secretaria que sea nueva.
- Sofía habla con una secretaria es nueva.
- Sofía habla con una secretaria ser nueva.
- Sofía habla con una secretaria sea nueva.

Appendix B

Idiosyncratic behavior of epistemic modality in nominal clauses

English examples	Epistemic Indicative	Epistemic Subjunctive	Environment analysis <ul style="list-style-type: none"> ▪ NNE = Non-negated epistemic ▪ NE = Negated Epistemic
1a. I believe (that) he is in class.	1b. <i>Creo [CP que él <u>está</u> en clase].</i>	----- ----- ----- -----	Matrix clause [^{NNE} +mental action] / Subordinate clause = V ₂ [+indicative]
2a. I don't believe (that) he is in class.	----- ----- ----- -----	2b. <i>No creo [CP que él <u>esté</u> en clase].</i>	Matrix clause [^{NE} - mental action] / Subordinate clause = V ₂ [+subjunctive]
3a. I doubt (that) he is in class.	----- ----- ----- -----	3b. <i>Dudo [CP que él <u>esté</u> en clase]</i>	Matrix clause [^{NNE} +mental action] / Subordinate clause = V ₂ [+subjunctive]
4a. I don't doubt (that) he is in class.	4b. <i>No dudo [CP que él <u>está</u> en clase].</i>	----- ----- ----- -----	Matrix clause = [^{NE} +mental action] / Subordinate clause = V ₂ [+indicative]

Effects of listener and speaker characteristics on foreign accent in L2 Spanish

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Abstract

In the current study, native (L1) Castilian Spanish judges listen to a variety of L1 and second language (L2) speakers reading a paragraph in Spanish and rate the level of foreign accent. They also identify, when possible, the speaker's dialect of Spanish, providing commentary on the reasons for their choice. This study measures the effects of both listener and speaker characteristics on foreign accent rating and dialect identification. The listener characteristics of residential history and experience with L2 Spanish significantly affect foreign accent ratings. Speaker characteristics including motivation to speak a particular dialect, L2 proficiency level, social networks, and the production of regional features are also explored. All have significant effects on foreign accent ratings.

Keywords foreign accent, second language phonology, second language pronunciation, Spanish language learners, perception

1. Introduction

It is widely acknowledged that “many adult learners speak their L2 with a foreign accent” (Zampini, 2008, p. 225). Listeners hear a person speak and judge both that person and their speech based on how foreign they sound (Hayes-Harb & Hacking, 2015). It is also commonly understood that “accents are widely associated with social values like correctness, desirability, prestige, and power” (Moyer, 2013, p. 102). L2 speakers who exhibit foreign accents can be evaluated more negatively on a personal level (Flege, 1987). Accent can signal a person's in-group or out-group status perhaps even more so than physical appearance (Moyer, 2013). While foreign accents may not be relevant for communicative purposes, they still affect how a speaker is perceived and have real world implications.

In the present study “accent is a set of dynamic segmental and suprasegmental habits that convey linguistic meaning along with social and situational affiliation” (Moyer, 2013, p. 11). If L1 speakers have an accent, L2 speakers have a foreign accent, or speech that deviates from these L1 habits. Foreign accent is still often included as part of assessment measures of oral competence in academic settings (Levis, 2006), despite a shift from decreasing foreign accent toward increasing comprehensibility (Derwing & Munro, 2009).

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One way to improve one's accent could be to target a specific variety and use features from this variety. It is widely thought that acquiring "native-speaker (NS) patterns of variation" leads to higher proficient language users (Bayley & Regan, 2004, p. 325). What this variation could look like in terms of speech production, could include adopting the phonological features salient to the target language variety under study. The current study will shed light on the connection between the use of regional features and foreign accent. In the present study, "*dialect* refers to a fully functioning language variety with its own vocabulary and grammar, as well as discursive style, in addition to a distinct accent" (Moyer, 2013, p. 10). Adult language learners are capable of producing regional features, often as a result of study abroad (e.g., George, 2014; Regan, Howard, & Lemée, 2009; Reynolds-Case, 2013; Salgado-Robles, 2011) or prolonged contact with L1 speakers after such sojourns (Geeslin & Gudmestad, 2008). Much less is known about how the production of regional features by L2 speakers is perceived by L1 listeners. The present study seeks to determine if listeners can detect a dialect in L2 speakers and to identify aspects of their speech that contribute to this dialect.

While the foreign accent of L2 English speakers has been widely studied, L2 Spanish speakers are less studied (Jesney, 2004), with a few exceptions (González-Bueno, 1997; Llanes, 2016; Martinsen, Alvord, & Tanner, 2014; Schoonmaker-Gates, 2013). In addition, previous research has primarily focused on speaker characteristics, leaving out listener characteristics, with some exceptions (Schoonmaker-Gates, 2013). The present study fills this gap by examining how both speaker characteristics (motivation to speak a certain linguistic variety of Spanish, strength of Spanish-speaking social networks, production of regional features, and proficiency level in Spanish) and listener characteristics (familiarity with L2 Spanish and residential history) affect foreign accent ratings of L2 Spanish speakers.

1.1. *Speakers and Foreign Accent Rating*

Several factors have been known to affect foreign accent ratings of L2 speakers including both phonological factors and extralinguistic factors, such as the quality and quantity of contact with Spanish and proficiency level. Each of these factors will be discussed in more detail.

Flege, Munro, and MacKay (1995) found pronunciation to be the key factor in identifying late learners of English (L1 of Italian) as non-native speakers, but did not identify the specific pronunciation features that correlated with stronger foreign accent ratings. Trofimovich and Isaacs (2012) investigated this by having experts analyze the speech errors of 40 L2 English speakers (L1 French speakers). They then divided the 19 types of errors into four categories (phonology, fluency, lexis/grammar, discourse). Novice judges (L1 English speakers) rated both the level of accentedness (how foreign the speaker sounds) and comprehensibility (ability to understand the speaker) in the 40 speech samples. These ratings were then compared with the errors found to determine which specific items accounted for foreign accentedness. Word stress and rhythm were found to be significant predictors of accentedness, while, type frequency, word stress, and grammatical accuracy were significant predictors of comprehensibility. Finally, three experienced

judges, all native speakers of English, reported on which of the 19 items influenced their accentedness and comprehensibility ratings. All of these comments were based on phonological phenomenon, with 27% of the comments focusing on segmental errors. Surprisingly, the comments on intonation were specific only to comprehensibility and not to accentedness. The four comments specific to accentedness and not comprehensibility dealt with vowels and consonants, syllables, the nativeness or non-nativeness of the sound, and rhythm. In this study, only the experienced judges, three English teachers, provided commentaries on the items that affected their decisions. It remained unclear what pronunciation features inexperienced raters would find relevant to their ratings and how they would contribute to dialect identification.

Study abroad has been shown to positively affect foreign accent rating, with beginning through advanced university student learners of Spanish rated as sounding statistically significantly less foreign than their counterparts who had not studied abroad, but still significantly more foreign sounding than native speakers (Martinsen et al., 2014). Similarly, study abroad resulted in significant improvement in foreign accent rating from a pretest to a posttest in native speaking Spanish children aged 10-11 and adults aged 19-33 who studied abroad in Ireland for three months and were rated on their English (Muñoz & Llanes, 2014). No significant differences were found in similar groups of participants who did not study abroad but completed English language classes at home in Spain (Muñoz & Llanes, 2014). Llanes (2016) found that study abroad resulted in weaker foreign accents in the English of 8 native Catalan/Spanish-speaking eleven-year-old learners studying abroad in Dublin both one week after the sojourn and also ten months later, but the 6 comparable at-home learners improved their foreign accents significantly during the 12 months. These studies affirm the clear advantage to studying abroad and decreasing one's foreign accent, but also indicate that foreign accent can be weakened at home too; it may just take longer to view significant improvements in at-home learners. It remains unclear why raters assign a particular rating and what makes them believe the participant sounds foreign.

Study abroad alone is not always sufficient for improving one's accent, but contact with the language under study can dramatically improve one's foreign accent. Díaz-Campos (2004) found a contact threshold, with four days per week or four hours of contact with the target language outside the classroom resulting in lower foreign accent ratings for 24 learners of Spanish abroad. In addition, speaking more of the target language both inside and outside of the classroom correlated with sounding less foreign (Muñoz & Llanes, 2014). Moyer (2004) also found more frequent interactions in German for 25 advanced immigrant learners in Berlin correlated with weaker foreign accent ratings by native German speakers. In addition to contact with the target language, less contact with one's native language correlated with a weaker foreign accent for Italian speakers of English (Flege, Frieda & Nozawa, 1997; Piske & MacKay, 1999), but Piske, MacKay, and Flege (2001) found age of arrival to be stronger than L1 use in terms of decreasing foreign accent. Guion, Flege and Loftin (2000) found those who exhibited higher

rates of use of their L1, in this case Quichua, were rated as having stronger foreign accents in Spanish, but later attributed this to age of acquisition through a follow up study. George (2014) found more reported contact with Spanish and less reported contact with English mid semester correlated with the production of the regional feature, [θ]. The context of contact was more important than the frequency of contact with the L2, with formal contact in work or school environments less effective than informal contact at home or in leisure contexts in terms of decreasing foreign accent (Derwing et al. 2007; Moyer, 2011).

Research on social networks and the use of regional features provides additional insight into contact with the target language and dialect development. For L2 learners to acquire the procedural knowledge involved with the acquisition of phonological variation, a social network is needed (Moyer, 2013, p. 13). Geeslin and Gudmestad (2008) found that participants who had stayed in contact with their host family and friends after returning from their time abroad used salient dialectal features more than those that did not remain in contact with their hosts. Pope (2016) investigated the relationship between social networks and the production of the regional feature [θ] in four university students sojourning in Madrid for the academic year. Two of the students with strong Spanish-speaking social networks produced [θ] 98% and 90% of the time in read and spontaneous speech, respectively. Two students with weak Spanish-speaking social networks demonstrated varying results with one producing [θ] 67% of the time, and the other producing this feature only 2% of the time. This case study provides evidence that social networks do lead to more use of regional features. George (2014) also found that stronger Spanish-speaking social networks correlated with [θ] production in learners studying abroad in Spain for the semester. For 23 university students abroad in Buenos Aires, Pozzi (2017) found social network to be one of the strongest predictors of the morphosyntactical regional feature, vos (second person singular informal), but this factor was not a significant predictor for the production of the phonological feature sheísmo/zeísmo (the realization of /j/ as or [j] or [ʒ]).

Moyer (2013) reviewed studies of advanced L2 learners and attributed their motivation to sound native-like as influential in reaching such an advanced level in their L2. In addition to motivation, Martinsen et al. (2014) found that level of instruction, which can be related to proficiency level, was also a statistically significant predictor of foreign pronunciation rating for learners of Spanish.

Phonological factors have been found to affect foreign accent rating as well. These include pronunciation of individual sounds (Major, 1987; Munro, Derwing & Flege, 1999; Riney, Takada & Ota, 2000), prosodic aspects of speech (Anderson-Hsieh, Johnson & Koehler, 1992; Jilka, 2000; Magen, 1998; Major, 1986; Munro, 1995) and speech rate (Munro & Derwing, 1998, 2001). In addition, comprehensibility and intelligibility have also been known to affect foreign accent ratings (Munro & Derwing, 1995a, 1995b, 1997, 1999). Regarding studies focusing on L2 Spanish production and phonological factors, González-Bueno (1997) manipulated the voice onset time (VOT) in native English speakers production of Spanish words. These L2 Spanish learners, whose VOT of [k] was between 15 and 35 milliseconds,

or closer to native-like norms, were perceived as sounding less foreign and more native-like by native Spanish-speaker judges.

1.2. Listeners and foreign accent and dialect identification

This area is fairly well researched with English speaking listeners (e.g., Gui, 2012; Isaacs & Trofimovich, 2011; Winke & Gass, 2013), but not with Spanish-speaking ones (Schoonmaker-Gates, 2013). While research on Spanish speaking listeners tends to focus solely on speaker characteristics (Schoonmaker-Gates, 2013), studying the characteristics of the listeners illuminates foreign accent rating results and dialect identification.

L1 listeners tend to rate L2 speech as sounding less foreign if they have more exposure and experience with L2 speech (Derwing & Munro, 1997; Flege & Fletcher, 1992; Thompson, 1991). Blanco, Tagtow, Smiljanic, and Rajka (2013) found that more experience with speakers of a particular type of foreign accent, in this case Spanish accented English versus Korean accented English, outside of the laboratory led to shorter processing times of these accents in the laboratory. L2 listeners with more previous dialect exposure rated L1 speech as sounding less foreign and non-native speech as sounding more foreign than L2 listeners with less previous dialect exposure (Schoonmaker-Gates, 2013).

Studies on dialect identification have focused on measuring differences between L1 and L2 listeners and on familiarity with certain dialects due to residential history and previous linguistic experiences. The results of these studies have shown that L1 listeners are better at identifying dialects than L2 listeners (Cunningham-Andersson, 1996; Sullivan & Karst, 1996). In addition, a more varied or longer residential history results in an increased ability to identify dialects for both L1 (Baker, Eddington, & Nay, 2009; Clopper & Pisoni, 2004; Díaz-Campos & Navarro-Galisteo, 2009) and L2 listeners (Cunningham-Andersson, 1996; Sullivan & Karst, 1996). This research has all focused on the dialect identification of L1 speakers. L2 speakers are capable of developing second dialects (D2s) to varying degrees (Siegel, 2010), but little is known about how this D2 is perceived by L1 listeners including whether or not they can identify the D2, particularly when dealing with Spanish.

1.3. Research Questions

The research questions that inform the current study are as follows:

- 1a. How do L1 listeners from Spain rate foreign accented speech by various L2 Spanish speakers as compared to their L1 counterparts?
- 1b. Can these listeners identify specific dialects of the speakers?
- 1c. If so, what pronunciation features caused the raters to choose their ratings (i.e. intonation, vowels, a specific regional feature, etc.)
2. How do listener characteristics (time away from Spain and experience with L2 Spanish) affect foreign accent ratings? Other listener characteristics, such as level of education, socio-economic status and gender, were excluded from this study, since previous studies found experience with L2 speakers and experiences living

outside one's home country to have an impact on foreign accent ratings.

3. What is the role of speaker characteristics (motivation to speak a target dialect, proficiency level, social networks, and production of regional features) on foreign accent ratings?

2. Methodology

2.1. Speakers

Sixty-three participants were recorded reading two short paragraphs about Madrid in Spanish. More information on the paragraphs is included in Section 1.3. Forty-one participants had recently studied abroad in a Spanish-speaking country for one semester, while 10 at a comparable point in their Spanish career had never studied abroad. Two of the participants studying abroad in Spain were heritage speakers of Spanish and each had one parent born in Mexico, while the participants themselves were born and raised in the USA. The participants also included 12 native speakers of Spanish from the same countries where the students had studied abroad (Spain, Ecuador, Venezuela, Argentina, and Chile). More information about the speakers is detailed in Table 1.

Table 1

Background Information of Speakers

Context	Number and Gender	Average Age
Study Abroad: Spain	19 females, 6 males	20.64
Study Abroad: Spain - heritage speaker	2 females	21.5
Study Abroad - Ecuador	3 females, 1 male	21.5
Study Abroad - Venezuela	3 female, 1 male	20.8
Study Abroad - Argentina	1 male, 1 female	18.5
Study Abroad - Chile	1 male, 1 female	22.5
No study abroad	1 male, 9 females	19.9
Native speakers - Ecuador	1 female, 1 male	29.5
Native speakers - Venezuela	2 males	29.5
Native speakers - Argentina	1 female, 1 male	37.5
Native speakers - Chile	1 female, 1 male	34.5
Native speakers - Spain	2 females, 2 males	NA

The speakers who studied abroad in Latin America and those who did not study abroad were Spanish majors or minors all in their fourth year of Spanish language studies at a large Midwestern university. Those that studied abroad in Spain came from various U.S. universities and colleges and all were Spanish majors or minors. The speakers were L1 speakers of English with the exception of the two heritage learners studying abroad in Spain who were dominant in English but also heard and spoke Spanish at home to varying degrees.

2.2. Listeners

The eight listeners consist of three females and five males. They were elicited using various online venues and were chosen because they were educated speakers from Spain who were not linguists. All are L1 speakers of Spanish,

born and university educated in Spain, with various occupations, but none are teachers of Spanish as a second language. Table 2 displays more information about each listener. The listeners completed an online survey, involving a short questionnaire about their background and a series of 30-second sound samples in Spanish.

Table 2
Background Information for Listeners

Listener #	Gender (Age)	Occupation	Experience with L2 Spanish	Residential History: Location (Years)
1	F (32)	Economist	Limited	Santiago de Compostela, Spain (32)
2	M (34)	Software/Law	Limited	Madrid, Spain (21) Germany (2) Netherlands (2) Minnesota, USA (2)
3	F (57)	Professor (Subject not specified)	Some	Madrid, Spain (9) Valladolid, Spain (5) Madrid, Spain (14) Connecticut, USA (2) Michigan, USA (12) Minnesota, USA (12)
4	F (30)	Teacher (Subject not specified)	Some	A Coruña, Spain (25) Salamanca, Spain (1) A Coruña, Spain (2) Greece (4)
5	M (24)	Student (major not specified)	Limited	Tenerife, Spain (24)
6	M (34)	Scientific Translator	Some	Oviedo, Spain (29) Segovia, Spain (2) Whales (2) Barcelona, Spain (1)
7	M (31)	English teacher	Some	Bilbao, Spain (22) Pennsylvania, USA (2) Washington DC, USA (3) Bilbao, Spain (4)
8	M (28)	Teacher (Subject not specified)	Some	Ponferrada, Spain (18) Salamanca, Spain (5) Portugal (1) United Kingdom (1)

2.3. *Data collection and analysis*

The current study utilizes techniques originating from the matched-guise test, designed by Lambert and his colleagues (1960), which involved the same speaker reading the text in different languages to measure participants' attitudes toward French and English in Montreal. In the present study, the students of Spanish were recorded reading a text, chosen for its number of possible tokens of regional features of different varieties of Spanish. From the larger text, two sentences were extracted. Most speakers read these two sentences in about 30 seconds. The regional features

included in these sentences were five possible tokens of [x], six of [θ], 1 of [ʃ] or [ʒ], and 15 of /s/-weakening. Other possible regional features could have been produced. Read speech was chosen over spontaneous speech for three reasons. First, it was to control for what the listeners would hear, so grammatical or lexical errors would be less likely to occur. Second, in previous studies on regional features developed abroad (e.g., George, 2014, Ringer-Hilfinger, 2012) there were so few tokens of geographically indexed features in spontaneous speech, that read speech was used in the present study instead. Finally, lexical or morphosyntactical choices in spontaneous speech could link a speaker to a particular place without focusing on the speaker's pronunciation. The goal of the current study is to determine the influence of pronunciation, as opposed to other items such as lexical choices, on foreign accent.

The data, including the speech samples and speaker characteristics, were collected at the end of a semester abroad for the participants who had studied abroad in Spain, after returning from a semester abroad for those who studied abroad in Latin America, and during the fourth year of university study for those that did not study abroad. The L2 speakers' data was collected alongside the L2 speech samples in Spain. The Latin American L1 speakers' data was collected in the USA. at the same time as the L2 speakers who never studied abroad. The L1 and L2 speech samples were recorded using a Marantz digital recorder.

As part of an online survey, listeners heard a 30 second sample of each speaker and then selected a number from 1 (no foreign accent) to 7 (strong foreign accent). Flege (1984) found that it is possible to detect an accent in a very short 6-word speech sample. Interval scales have been determined to be an effective way to measure foreign accent (Southwood & Flege, 1999). The order of the speakers was random. After assigning a foreign accent rating, listeners identified any specific dialect they detected, indicated the degree of the dialect from 1 (sounds a little bit like the dialect) to 7 (sounds a lot like the dialect) and reported why they chose that particular dialect or variety of Spanish. This could include, for example, intonation, specific sounds, or other items. It should be noted that it is unclear if the listeners understood the term intonation. While the listeners are educated through at least university level, they are not linguists, so their conceptualization of intonation may be different from the linguistic definition of the term. The speakers were all familiar with regional sounds, even though they did not define these using phonetic terms. Finally, listeners answered background questions included in the survey to determine their experience with L2 speakers, residential history, and other background information.

The background questionnaire filled out by the speakers in Spain was used to determine the extralinguistic factors that may have affected their foreign accent ratings. Motivation was determined based on participants' responses to a question about whether or not they tried to speak a specific dialect of Spanish and their identification of this dialect. Social network strength was determined based on participants' identification of the frequency, context, and variety of Spanish spoken with interlocutors. Information about the dialects spoken by their current and previous Spanish teachers was also gathered. Spanish proficiency level was determined based on students

choosing the number between 1 (low) and 5 (like a native speaker) which best represented their skill levels in reading, writing, speaking, and listening. The four numbers were then averaged to determine their proficiency score and any numbers below 2.9 were considered low proficiency, while above 2.9 were considered high. It is important to remember that low does not mean novice, it is simply a way to group the learners that rated themselves lower than the other learners. To determine production of regional features the researcher listened to each speech sample and determined if the speaker used regional features or not. These features included [θ], [x], [ʃ / ʒ], and /s/-weakening. Since those who studied in Ecuador resided in a place with speakers who would not typically exhibit any of these features, those students were excluded from the analysis. Information about the participants' progress in their Spanish major, previous Spanish courses taken, and travel to Spanish-speaking countries prior to studying abroad was also elicited.

To analyze the data, first, the average foreign accent ratings for L1 and L2 speakers were calculated for each listener. The speakers were then divided into two groups of L2 speakers (Spain and Latin America) and four groups of L2 speakers (Spain study abroad, Latin America study abroad, no study abroad, heritage speakers studying abroad in Spain). The data was analyzed quantitatively via one-way ANOVAs to determine significant differences between listener characteristics (those who left Spain vs. those who stayed in Spain and those with previous L2 Spanish experience vs. those without) and speaker characteristics (no, some or strong motivation to speak a target variety of Spanish, low or high Spanish proficiency, weak or strong Spanish-speaking social networks, and no or some use of regional features). The qualitative analysis revealed the number of dialects identified and the listeners' reports on which pronunciation features influenced their decision. In order to determine the agreement among the listeners' ratings, a Cronbach's alpha analysis was run to determine interrater reliability. This analysis is used to show the degree to which the listeners are reliable and consistent when rating the speakers. The Cronbach's alpha analysis revealed that the eight judges rated the samples with an excellent level of consistency ($\alpha = 0.934$). A coefficient of .90 to 1.0 is considered excellent (George & Mallery, 2003.) The following scale applies to Cronbach's alpha for interrater reliability: Excellent: $\alpha > .9$, Good: $\alpha > .8$, Acceptable: $\alpha > .7$, Questionable: $\alpha > .6$, Poor $\alpha > .5$, and Unacceptable: $\alpha < .5$ – (George & Mallery, 2003, p. 231).

3. Findings

3.1. Foreign accent rating

The first part of the first research question asks how listeners from Spain rate speech by and L2 Spanish speakers. As evident in Table 3, listeners assign on average higher foreign accent ratings to L2 speakers and lower foreign accent ratings to L1 speakers. This difference resulted in significance ($p > .001$, Mann-Whitney U Test). The L2 speakers included the HL speakers, and even when they were not included, there were still significant differences.

Table 3
Foreign Accent Ratings from 1 (native-like) to 7 (very foreign)

Listener (Sex, Age)	L1	L2
1 (F, 32)	1.08 (0.29)	3.67 (1.15)
2 (M, 34)	1.17 (0.39)	4.17 (1.82)
3 (F, 57)	1.25 (0.87)	4.83 (1.26)
4 (F, 30)	1.00 (0.00)	5.67 (1.51)
5 (M, 34)	2.83 (2.21)	5.19 (1.08)
6 (M, 31)	1.67 (0.49)	4.75 (1.45)
7 (M, 28)	1.08 (0.29)	4.90 (1.51)
8 (M, 24)	2.92 (2.68)	6.34 (1.18)
Total	1.63 (1.45)	4.93 (1.58)

To further address the first research question on how listeners rate both L1 and L2 speech, Table 4 shows the foreign accent rating averages for various groups of L1 and L2 speakers. Differences in foreign accent ratings among the groups were significant ($p > .001$, Mann Whitney U test). The Tukey HSD post hoc test revealed significant differences in foreign accent ratings between the L2 Spain SA and L2 Latin America SA ($p > .001$). Not surprisingly, both L1 groups significantly differed from all L2 groups. The L2 groups that did not differ statistically were as follows: L2 Spain SA and No SA ($p = .448$), L2 Spain SA and HS SA Spain ($p = .064$), L2 Latin America SA and No SA ($p = .072$), HS SA Spain and No SA ($p = .536$).

Table 4
Foreign Accent Ratings by Speaker Groups

Listener (Sex, Age)	NS Spain rating	L2 Spain SA	NS Latin America	L2 Latin America SA	HS SA Spain	No SA
1 (F, 32)	1.00 (0.00)	3.92 (1.12)	1.13 (0.35)	3.08 (1.00)	4.0 (2.83)	3.67 (1.00)
2 (M, 34)	1.00 (0.00)	4.75 (1.80)	1.25 (0.46)	3.67 (1.37)	2.0 (0.00)	3.78 (2.11)
3 (F, 57)	1.00 (0.00)	5.04 (0.98)	1.38 (1.06)	4.33 (1.61)	4.50 (3.54)	5.00 (0.87)
4 (F, 30)	1.00 (0.00)	6.04 (1.10)	1.00 (0.00)	5.25 (1.91)	4.50 (3.54)	5.44 (1.42)
5 (M, 34)	1.00 (0.00)	5.40 (0.96)	3.75 (2.19)	4.82 (1.40)	5.00 (0.00)	5.11 (1.05)

6 (M, 31)	1.00 (0.00)	5.04 (1.43)	2.00 (0.00)	4.00 (1.41)	4.00 (2.83)	5.11 (1.05)
7 (M, 28)	1.00 (0.00)	5.32 (1.38)	1.13 (0.35)	4.17 (1.70)	4.50 (3.54)	4.78 (0.83)
8 (M, 24)	1.00 (0.00)	6.63 (0.71)	3.88 (2.85)	5.67 (1.87)	6.00 (1.41)	6.56 (0.73)
Total	1.00 (0.00)	5.28 (1.19)	1.63 (1.45)	4.37 (1.70)	4.31 (2.21)	4.93 (1.44)

Table 5 addresses the second part of the first research question on if listeners can identify a specific regional dialect of each speaker. After the listeners identified the level of foreign accent, they then were asked to identify any specific dialect they heard. Table 5 lists the number of L1 and L2 dialects correctly identified. In Table 5, *correctly* for L2 speakers relates to either the place of study abroad or the target dialect identified by the learner.

Table 5
Number of Correct Dialects Identified by Listeners

Rater (M/F, age)	# NS dialects identified	# Correct	# L2 dialects identified	# Correct
1 (F, 32)	6/12	6/6 (1 (Spain))	0/49	NA
2 (M, 34)	5/12	5/5 (2 (Spain))	3/49 (2 Spain)	2/3
3 (F, 57)	2/12	2/2 (1 (Spain))	1/49	0/1
4 (F, 30)	2/12	2/2 (1 (Spain))	1/49	0/1
5 (M, 34)	5/12	4/5 (0 (Spain))	10/49 (6 Spain, identified as LA)	3/10
6 (M, 31)	4/12	4/4 (4 (Spain))	4/49 (1 (Spain))	4/4
7 (M, 28)	6/12	2/6 (2 (Spain))	1/49	0/1
8 (M, 24)	0/12	NA	0/49	NA
Total	31% (30/96)	83% (25/30)	5% (20/392)	45% (9/20)

Together the eight listeners correctly identified 83% of L1 dialects and only 45% of L2 dialects. The Spain dialect was most often correctly identified in both L1 and L2 speakers, which is not surprising since listeners often rate their own variety as sounding less foreign than any other varieties (Schoonmaker-Gates, 2013). The most common reason provided for identifying the L1 speaker dialects was intonation. It is unclear if this refers to pitch contour (pitch patterns) or pitch range. Other reasons consisted of the identification of segmental features or specific sounds, including /x/, /s/-weakening, /θ/, /s/, and /j/.

Some listeners were better than others at identifying dialects. Five of the eight listeners were accurate 100% of the time identifying a variety of L1 dialects. These same five listeners were less accurate identifying L2 dialects with only one exhibiting 100% accuracy, but, overall identifying a dialect only 5% of the time.

The majority of L2 speakers did not have a perceived identifiable dialect and this could have been due to the lack of use of salient dialectal features and/or the listeners not being familiar with those target dialects. Listeners

tend to be better at identifying dialects they are more familiar with, so that could be why they had trouble identifying L2 dialects. However, the listeners in the current study rated the L1 speakers from Latin America as sounding significantly less foreign than the L2 speakers who studied abroad in Latin America ($f(1) = 78.168, p > .001$). It is also possible that the speakers' strong foreign accent prohibited the listeners from identifying a dialect.

The listeners who rated L2 speakers with high foreign accent ratings claimed it was due to intonation and non-native pronunciation of /t/, /r/, /l/, and /x/. The influence of the L1 was evident for [r] and [t]. Some of the speakers pronounced [ɹ] instead of [r] or [r̄] as is the most common pronunciation in the Spanish-speaking world. There are other acceptable pronunciations of [r], but the speakers did not produce those either. Some speakers pronounced [t] as alveolar and possibly with aspiration, like in English, and not dental with no aspiration, like in Spanish.

For those with low foreign accent ratings, the listeners specifically mentioned their intonation and the following dialectal features: /θ/, /j/, /s/ aspiration, retention of /s/. These often corresponded to the place of study abroad, however many that studied abroad in Spain were perceived as having a Latin American dialect due to their lack of Castilian Spanish features. Of those 9 students who had never studied abroad, only two were rated as sounding slightly like having a distinct dialect. For one participant, no specific dialect was identified. One listener rated another as sounding slightly Castilian (Spain) and a different listener rated the same speaker as sounding slightly Latin American. Despite the fact that these speakers had never been abroad, two out of nine were perceived as having slightly identifiable dialects, proving that study abroad is not always necessary to start to develop a specific dialect of the target language.

Of the two heritage speakers of Mexican descent in this study, one was perceived as sounding slightly Mexican due to her intonation and one was perceived as sounding Castilian due to her pronunciation of /x/ and /θ/. The one that sounded Castilian also exhibited, on average, a lower foreign accent rating. The use of these two regional features could have led to this lower rating.

3.2. *The listener and speaker characteristics*

Tables 6 and 7 illuminate the results of the second research question which addresses the effects of listener characteristics on foreign accent ratings. Listeners 1, 2, and 5 reported little to no experience listening to L2 Spanish, while listeners 3, 4, 6, 7, and 8 reported some experience listening to L2 Spanish although none were Spanish teachers. Table 6 details the comparisons between these two types of judges. Previous L2 Spanish listening experience resulted in significantly higher foreign accent ratings.

Table 6

Foreign Accent Rating Based on Listeners' Previous Experience with L2 Speech

	Mean Rating (SD) of L2 speakers (including HSs)	Mean (SD) of NSs
No L2 experience (N=3)	4.34 (1.52)	1.69 (1.51)
Some L2 Experience (N=5)	5.29 (1.58)	1.58 (1.43)
Statistical significance	F (1) = 35.491, p > .001**	F (1) 0.130, p = .719

** Significant at the .01 level

Table 7 shows differences in foreign accent ratings by those listeners who left Spain, their country of origin, to live elsewhere for at least one year and those who remained in Spain. Those judges who left Spain rated L2 speech as sounding significantly less foreign than those who never left Spain.

Table 7

L1 Listener Characteristics

	Mean Rating (SD) of L2 speakers (including HSs)	Mean (SD) of L1s
Left Spain (N=2)	4.42 (1.35)	1.51 (1.32)
Never left Spain (N=6)	5.11 (1.62)	1.96 (1.78)
Statistical significance	F(1) =13.958, p > .001**	Mann-Whitney U result: p=.448

** Significant at the .01 level

To address the third and final research question on the L2 speaker characteristics that affect foreign accent ratings, Table 8 highlights the results of motivation, proficiency level, Spanish-speaking social networks and the use of regional features.

Table 8
L2 Speaker characteristics Mean Rating (SD)

Motivation			Statistical Significance
None	Some	Strong	F(2) = 7.90, p = >.001**
5.23 (1.53)	4.84 (1.54)	4.55 (1.59)	LSD Post hoc:
Proficiency			None and Some: p = .082
			None and Strong: p = .000**
			Some and Strong: p = .208
Spanish-speaking social networks			
Low	High		
5.58 (1.40)	4.74 (1.58)		F(1) = 19.867, p = >.001**
Regional Features			
Weak	Strong		
5.21 (1.46)	4.38 (1.67)		Mann-Whitney U result: p = >.001**
Regional Features			
None	Some		
5.24 (1.41)	4.00 (1.71)		Mann-Whitney U result: p = >.001**

** Significant at the .01 level

All four of the speaker characteristics resulted in significant differences in terms of foreign accent ratings. L2 speakers who were strongly motivated to speak a specific variety of Spanish were rated as sounding significantly less foreign than those with no motivation to speak a certain dialect. Similar to previous studies (e.g., Martinsen et al., 2014), proficiency level played an important role. L2 speakers who self-rated their Spanish proficiency as higher, between 2.9 and 5.0 on a 1-5 scale, were rated as sounding significantly less foreign than those who rated their proficiency as lower. Social networks also have their advantages in terms of resulting in decreased foreign accent ratings. L2 speakers with weaker Spanish-speaking social networks were rated as sounding significantly more foreign than their counterparts with stronger social networks. The production of regional features resulted in the largest difference of foreign accent ratings. Speakers who produced some regional features were rated as sounding significantly less foreign than those who produced no regional features. Since those who studied in Ecuador resided in a place with speakers who would not typically exhibit any of these features, those students were excluded from the analysis. It is worth noting that the results were significant even when they were included.

4. Discussion

The first research question asks how listeners from Spain rate foreign accented speech by various L2 Spanish speakers. The answer is that they are rated as sounding significantly more foreign than their L1 counterparts. This is not surprising given the plethora of research with similar results (e.g., Flege, et al., 1995; Martinsen et al., 2014). These similar findings present in the current study and previous research could be because accents are fairly easy to detect and are often the first thing that L1 speakers notice about L2

speakers (Moyer, 2007). From a social standpoint, L2 speakers are often perceived as less intelligent due to their accents (Siegel, 2010).

In response to the second part of the first research question about if Spaniards can identify specific dialects of these speakers, the answer is sometimes but not very well. The listeners rated L1 Latin Americans as sounding significantly less foreign than L2 speakers, but identifying a specific dialect was in general more difficult. All but one listener identified the dialect of at least two L1 speakers from Latin America, however only 3 listeners correctly identified L2 dialects. On the one hand, this could be because the judges never resided in Latin America, so it could be more difficult to identify those dialects. This is in line with previous research that found residential history of L1 listeners to be associated with dialect identification (e.g., Díaz-Campos & Navarro-Galisteo, 2009; Baker, Eddington, & Nay, 2009; Clopper & Pisoni, 2004). On the other hand, the Latin American L1 speakers resided in the U.S, which could have influenced their speech, particularly their dialect.

The third part of the first research question, about what characteristics caused the raters to choose their ratings, revealed that intonation was the most common followed by regional features and sounds different in the L1 ([t], [r], and [r]). This is at least partial evidence of the importance of using regional features in one's speech in order to sound less foreign, but also points to the importance of developing target-like intonation and target-like sounds that differ from their L1 counterparts. It is unclear which aspect of intonation the listeners are taking into consideration. When using novice listeners, Trofimovich and Isaacs (2012) found word stress and rhythm to be associated with stronger foreign accent ratings of L2 English speakers. With experienced listeners, vowels and consonants, syllabus, sounds native or non-native like, and rhythm were most commonly identified as attributing to higher foreign accent ratings. This aligns partially with the current study, since after intonation consonants were the second most popular feature associated with higher foreign accent ratings. The listeners attributed L2 dialects to specific regional features of Central Spain (/θ/ and /x/) and Argentine (/j/) dialects alongside intonation.

In response to the second research question on how listener characteristics (time away from Spain and experience with L2 Spanish speech) affect foreign accent rating, the answer is that the listeners who always resided in Spain rated L2 Spanish speakers as sounding more foreign. Surprisingly, the listeners who exhibited more previous experience listening to L2 Spanish, rated the L2 speech as sounding more foreign. Leaving Spain meant living in an English-speaking country for those six raters, which implies they are likely to speak with a foreign accent themselves in English and possibly hear more accented speech in both Spanish and English. The current study aligns with previous ones in terms of more varied and longer residential history correlating with lower foreign accent ratings, but does not align in terms of previous experience with L2 Spanish. This could be due to the self-reported nature of the data, which did not account for the quality of the previous L2 Spanish experience.

Finally, in response to the last research question on the role of speaker characteristics (motivation to speak a target dialect, proficiency level, social networks, and production of regional features) on foreign accent rating, stronger motivation to speak a target dialect, higher proficiency in Spanish, stronger Spanish-speaking social networks in the target dialect, and production of salient regional features resulted in a weaker foreign accent ratings. These speaker characteristics are also seen in previous studies. For example, Moyer (2013) found the most advanced learners were the most motivated to sound native-like. Higher proficiency in the L2 was attributed to weaker foreign accents in Martinsen, Alvord, and Tanner's (2014) study too. Stronger social networks may be attributed to more contact in the L2, similar to Muñoz & Llanes (2014) and Díaz-Campos (2004). L2 learners with weaker foreign accents may seek out more L1 speakers, since they may feel more comfortable to do so (Moyer 2004 and 2007) or they may be discouraged to interact with locals because of their strong foreign accent (Moyer 2013).

On the background questionnaire, participants were asked if they were trying to use a specific variety of Spanish or not. Of the students who had not studied abroad, only one identified a target dialect. Specifically, she stated that she tried to speak Mexican Spanish, due to the fact that her boyfriend was from a Mexican border town in the USA. where Spanish is widely spoken. While the others could not identify a target dialect, five stated that they tried to sound less American when speaking Spanish. One stated that she tried to mimic her previous Spanish teachers, all of whom were American. Only three mentioned with whom they currently speak Spanish and only one could identify a dialect of the interlocutor and that dialect was Mexican. The four students who studied abroad in Ecuador were not trying to sound Ecuadorian when they spoke, but two were trying to sound less American, and one said she did try to sound like a local when she was living in Ecuador. All of the Ecuadorians were currently in contact with native-Spanish speakers, most of whom were Ecuadorian. Of the two who had studied in Chile, one tried to sound Chilean and one did not. The one who tried to mimic the Chilean accent was in contact via video chat with his host family and also spoke in Spanish regularly to his Venezuelan roommate. The other participant, despite not purposefully trying to sound Chilean, spoke regularly in Spanish to her native Spanish-speaking husband, and may have accommodated her Spanish to his dialect. All four of the Venezuelan study abroad participants tried to sound Venezuelan. However, only one spoke regularly to her Venezuelan boyfriend. Similarly, both Argentine study abroad participants tried to sound Argentine. One video chatted weekly with her former host family in Argentina and the other spoke regularly to other Americans that had previously studied in Argentina. Of the Spain study abroad participants who produced regional features, 86% (6/7) were aiming for a target dialect of Castilian Spanish. On the other hand, only half (9/18) of those participants who studied abroad in Spain and spoke with no regional features tried to sound like Castilian Spanish speakers. Regarding the two heritage speakers, the one who tried to sound Castilian received lower foreign accent ratings than the one who did not try to sound Castilian. The majority of the speakers who had studied abroad in Spain returned to

the USA. shortly after completing their fall semester abroad to finish their education. For this reason, their goal was not always to adopt the dialect spoken where they studied.

5. Conclusions

This study identifies both speaker and listener characteristics associated with stronger foreign accent ratings. For students who desire to decrease their foreign accent, strong motivation to speak a target dialect, a self-rated higher proficiency level, a self-reported stronger Spanish-speaking social network, and the use of regional features could be essential. Study abroad coupled with strong social networks could be the key to reducing foreign accent ratings, since speakers who never studied abroad did not produce any regional features. Unlike other studies, listeners in the current study with previous L2 Spanish listening experience assigned higher foreign accent ratings than listeners without these experiences. Likewise, listeners who left their country of origin for two or more years assigned stronger foreign accent ratings than those who never left their country of origin. This study highlights both speaker and listener characteristics and how they affect the foreign accent ratings of L2 Spanish speakers. Regarding speakers, since the majority of L2 learners of Spanish were not perceived as sounding like any particular dialect, these learners could possibly benefit from instruction on the incorporation of phonological dialectal features in order to sound less foreign. This could also help the learners overcome sounding like a learner and possibly make their speech more comprehensible. In terms of listeners, they tend to be more sympathetic toward L2 speakers if they have had more contact with these speakers and more time away from their home country. Listeners could also benefit from instruction on speakers outside their home county, raising awareness about different dialects in Latin America as well as L2 Spanish. Future studies should take into consideration both speaker and listener characteristics as both could affect the results.

5.1. Limitations and future directions

This study has two main limitations that future studies could address. First, only eight listeners rated the speech samples. A future study could include both L1 and L2 speaking listeners with a variety of previous experiences with L2 Spanish and of target varieties of Spanish. A more in-depth background of each listener could be obtained. The fact that the listeners were from different places within Spain could have affected their ratings, particularly with the one judge from Tenerife, located on the Canary Islands, where the target variety of Spanish is markedly different than the varieties spoken by the other listeners. In the future, spontaneous speech could be rated instead of read speech. Knouse (2013) found that beginning learners produced a regional feature after studying abroad in Spain, so it would be possible to include more participants of varying proficiency levels in a future study. In the current study, all participants were enrolled in or recently completed advanced Spanish courses. Participants with experiences in different target-language speaking countries as well as more heritage speakers of various backgrounds and proficiency levels could also strengthen a future study.

The second limitation deals with the manner in which the variables determining the speakers' characteristics were measured. For example, L2 proficiency was self-rated. A future study could include a more objective measure such as ACTFL's OPI or the DELE exam. To measure motivation to speak a target dialect, an additional measure could be used, such as responding to statements on a Likert scale. In the current study, the judges may not have relied solely on regional features when assigning their ratings, as many indicated they gave higher foreign accent scores due to the intonation and the non-native like pronunciation of certain sounds, such as [r] and vowels. Previous studies resulted in VOT affecting foreign accent ratings, with speakers with more native-like VOT times receiving lower foreign accent ratings (González-Bueno (1997)). Therefore, a future study could control more for regional features and other pronunciation features that affect listener's ratings. Social networks were self-reported and could use a questionnaire similar to Kennedy's (2012) to ascertain a more complete picture of each participants' social network and contact in all languages spoken. However, the data for this current study was collected in 2011.

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Considering communicative fieldwork as a valuable strategy of encouraging foreign language practice: a discussion on implementation, benefits and limitations

‘*Sprechen ist Handeln*’ (Speaking is doing) Heringer (2004)

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Abstract

This article seeks to explore how foreign language learners can improve their foreign language skills through engaging in various out-of-the classroom activities that provide contextual foreign language learning. This discussion encourages the use of locally available target language resources, structures, institutions and organisations to provide a platform or rather communicative field work (CF) for learners to practice what they gather in the classroom. Hence, there are two important issues that arise from it. Firstly, that the classroom remains an important platform to initiate and nurture the target language learning skills of learners, and secondly, that in most cases, foreign language teachers need not to instil in learners, the view that the best environment to improve one's foreign language skill is when one is integrated into a community of speakers (e.g. Dörnyei, 1990). The argument therefore, is that even in areas where the target language is not a dominant language, learners can utilise contact with pockets of competent target language speakers to improve their language skills. In view of these perspectives, this study considers Barker's (2004) and Johnson's (2011) views on the importance of utilising local resources to promote foreign language learning as providing a theoretical background for this discussion. While Barker is of the view that learners can communicate among each other and thus provide a platform for pragmatic foreign language use, Johnson elbows aside the need for learners to be involved in study abroad programmes. Instead he suggests that learners can engage with native speakers, heritage speakers, and bilinguals in their own neighbourhoods. Although Barker and Johnson's views cannot be considered as full-fledged theories, they however, provide an important contribution in how foreign language learning can actually be extended beyond the classroom and thus encourage a practical disposition in foreign language learning. Motivated by these views, this article therefore, intends to discuss how these resources can be utilised, or rather how communicative field work in foreign language learning can be organised and which structures can be manipulated to bring forth productive foreign language learning. Examples from the Zimbabwean context are provided to aid in illustration.

Keywords Communicative fieldwork, foreign language leaning and out-of-class language leaning.

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1. Introduction

Before engaging in this discussion, it needs to be pointed out that this study acknowledges the importance of the foreign language learning classroom not only as an environment where learners are provided with the grammatical knowledge of the target language but are also exposed to a compact (micro) version of the target language culture which is represented mainly by the language learning material. First of all, there is need to understand that, foreign language learning is considered as an activity that is solely done within the confines of the classroom since foreign languages are learnt in environments where they are hardly spoken. Hence, to talk of practical out-of-class target language usage is usually met with scepticism. This article, therefore, does not seek to take away the significance of the classroom in foreign language learning but most importantly, it seeks to debunk the view that foreign language learning does not present much in terms of resources that support pragmatic learning of foreign languages. Taking Zimbabwe as a case study, it seeks to unravel ways of promoting pragmatic foreign language learning even with limited resources. This endeavour is very important especially when considered in the light of a view that has been sustained by a number of influential linguists (such as Brown, 2000 and Block, 2007), that most foreign language learners would not achieve target language mastery and communicative language competence if foreign language learning solely takes place within the confines of the foreign language classroom.

Besides the appeal of the view that the foreign language classroom does not offer adequate learning resources for one to achieve foreign language competence, a number of studies have highlighted what the classroom can offer. For instance, Johnson (2011), observes that the classroom environment can play a very crucial role in the development of a learners' L2 identity. He argues that 'the classroom provides a training ground where learners examine the structure and function of the target language. Because language learning is both individually and socially oriented, the characteristics of each factor influence identity development' (p.10). Hence, the classroom remains an important platform where most of the principles of a particular foreign language are discussed and conceptualized in preparation of the learner's contact with real life situations. However, as Richards (2015) observes,

While language teaching has always been seen as a preparation for out-of-class uses of language, much of the focus in language teaching in the past has typically been on classroom-based language learning. Research, theory and practice has (sic) generally centred on how the classroom, together with teachers, learners and learning resources can provide the necessary conditions for learning to occur (p.5-6).

Perhaps, it is time for foreign language learning teachers and researchers to tear down the boundaries of classroom learning and experiment with various locally available resources to promote pragmatic language learning.

This discussion considers Barker's (2004) and Johnson's (2011) views on how learners of foreign languages can utilise resources around them to practice and develop communicative language competence. In his discussion of the ways in which Japanese learners of English can manipulate out-of-class activities to improve their pragmatic use of English language, Barker argues that these learners can communicate with one another and with other non-native speakers of English in their communities. For instance, he encourages learners to be involved in peer interaction outside the classroom, and states that this may combat the anxiety that usually gripes learners when they finally get a chance to speak with competent target language speakers.

Johnson on the other hand, while acknowledging the benefits of study abroad programmes, pursues the view that, where such opportunities are limited, foreign language learners can establish communication with native speakers, heritage speakers, and bilinguals in their own neighbourhoods.

Barker and Johnson's views can hardly be considered as full-fledged theories. However, they provide an important contribution in how foreign language learning can actually be extended beyond the classroom. Based on these views, this article endeavours to develop CF into an effective concept and strategy that can be used to promote communicative foreign language acquisition.

In general terms, the concept of Communicative Fieldwork (CF) refers to what most SLA and foreign language learning scholars refer to as the 'out-of-class' language learning (Baker, 2006), (Lai and Gu, 2011), (Richards, 2015). Yet, in specific, definitive terms and in the context of this study, the simplicity of the term 'out-of-class' does not do justice to the concept of CF. First of all, it is referred to as 'fieldwork' to emphasise on two important aspects of 'out-of-class' language learning; the *field* and *work* aspects.

1.1. *The field*

While there are some communicative activities that are meant to broaden the skills of foreign language learners to deal with real life situations that can be done within the classroom (such as using audio-visual resources to represent the target language culture, at least at a micro level), CF demands learners to be involved in various activities that are centred on foreign language learning outside the classroom environment, in the actual field where discourses are located and to learn from them as they take place. This way, learners may be able to understand and broaden their elocutionary knowledge of the target language. The field therefore, cannot be described as homogeneous in all foreign language learning settings, but context dependent. The resources that are available within the learners' L1 community that can provide a practical environment for foreign language

acquisition vary from society to society. This article for instance, will provide examples from the Zimbabwean foreign language setting and will cite resources that are available in the Zimbabwean community that can provide a useful environment for practical foreign language learning. Furthermore, while in other contexts, especially the second language learning context, the 'out-of-class' can simply refer to the vicinity of where language instruction takes place (such as within a university), in most foreign language contexts, areas where learners can get pragmatic competence are usually distant and not easy to locate and establish, as such simply calling them 'out-of-class' environments becomes an understatement, considering the work that is involved in establishing them, they can suitably be referred to as the fields of pragmatic learning of foreign language learning. This also (partly) explains the 'work' aspect of fieldwork.

1.2. *The work*

The work aspect is underscored by two considerations; firstly, as explained above, that finding and establishing areas where learners can apply what they learn in the foreign language classroom to real life situations is a challenging task. For instance, the same cannot be said of learners of English as a Second language (ESL) in areas within Kachru's (1985, 1997) inner or outer circles of World Englishes. Secondly, emphasis on the pragmatic learning of foreign language as *work* is drawn from the need to consider it as more significant than just home work. This study encourages 'out-of-class' foreign language learning to be part of learners' course *work*, and not to be considered as merely an extra. Learners therefore, need to be made aware of its significance not only in helping them understand the contextual usage of the target language but also as it contributes to their overall assessment in their language learning proficiency. In the long run, this will motivate them to participate in communicative fieldwork.

Furthermore, CF is described as *communicative*, not only to distinguish this form of field work from what is understood as linguistic field work² which is an activity that is related to research work but also to emphasise on the importance of this form of fieldwork in promoting pragmatic and linguistic competence. The significance of pragmatic language learning in promoting both linguistic and communicative competence is also demonstrated by de Aquino (2011), who argues (through citing Larsen-Freeman, 2000) that learning to communicate through pragmatic means, is another way to approach the goal of developing student's communicative competence. Brown (2000) notes that 'a good share of classroom, school-oriented language is context reduced, while face-to-face communication with people is

²Linguistic fieldwork, as Dixon (2007) puts it, refers to an act of 'going into a community where a language is spoken, collecting data from fluent native speakers, analysing the data, and providing a comprehensive description, consisting of grammar, texts and dictionary' (p.12). Hence, the difference between communicative fieldwork and linguistic fieldwork is that, while both cases involve engaging the target language community, in the former case, the learner intends not only to collect linguistic data (as is the case in the latter situation), but to get opportunities of 'self-repair' and negotiation of meaning (Yi, 2003).

context embedded' (p.246). Hence, this form of field work is described as communicative since it reinforces situated foreign language usage, which provides a contextual meaning.

The view that is underscored in this discussion is that, beside the important role played by the foreign language classroom in equipping learners with a training ground where they examine the structure and function of the target language, it might be beneficial to consider extending the learning process outside the classroom, where teachers and researchers can identify local resources that might provide a pragmatic environment for foreign language learning. This view follows the understanding that in a foreign language context, learners do not have much opportunity to come into contact with the target language community. However, this article argues that this is not an excuse adequate enough to justify total ignorance of locally available resources that can be effectively utilised to promote learner's communicative language competence.

2. Implementation

The first and most important stage in the implementation of CF is the identification of local resources, institutions, organisations and certain individuals who are members of the target language community. The best way of doing this though, will be to allow learners themselves to go out into the L1 community and research about these resources. This will engage their interest and investment since they will likely take ownership of their projects. In the long run, these projects will help learners to be well connected and this might be handy when their time to look for work comes. When looking for local resources for promoting pragmatic foreign language use, one can consider the following:

2.1. Non-governmental organisations (NGOs)

Every society has them in abundance, most of which are involved in humanitarian work. For instance, when it comes to learning German as a foreign language in Zimbabwe, one can approach NGOs such as *Welthungerhilfe* and German International Cooperation. Some of these organization are also involved in joint activities with the Zimbabwean government, for example Zimbabwe German Graphite Mine which is based in Karoi (Zimbabwe).

2.2. Institutions

Most of these institutions have the mandate of promoting the target language and culture. In Zimbabwe for instance, learners of German can approach institutions such as the Goethe Zentrum Harare (Goethe institute in Zimbabwe) which also works closely with the Zimbabwe German Society (ZGS). Through the German Academic Exchange Service (DAAD), the German government is able to support various language and cultural exchange programmes world-wide. Through the Confucius projects, the Chinese government is engaged in the same endeavour. Short term internships in these institutions can also be arranged to equip and prepare

learners for a pragmatic foreign language experience outside the foreign language classroom.

2.3. *Community gatherings*

Target language community gatherings can also provide important opportunities of mixing and mingling with target language speakers. Target language speakers usually make effort to commemorate various traditional activities even though they are away from their home countries. For instance, in Zimbabwe, Germans try to recreate celebrations such as the *Oktoberfest*, which is a beer festival celebrated annual by Germans around the globe. A club with the name *Oktoberfest Zimbabwe*³ has been created by the rotary club in Harare. While drinking alcohol would not be an activity that learners are encouraged to partake in, such events would provide a relaxed environment for self-enrichment in terms of target language and culture competence. Teachers and learners need to research the information about these gatherings. In these gatherings, they can also get more information on other target language community club gatherings.

2.4. *Embassies*

Most cultural exchange programmes are usually spearheaded by embassies. They are usually the contact between the local and the target language communities. Embassies usually work with various local institutions where their languages are taught. One of the mandates of embassies is to promote visibility of the target language community, hence, many foreign language activities and cultural events revolve around them. For instance, at the University of Zimbabwe, various foreign language sections usually thrive on the support provided by the embassies.

2.5. *Families of target language speakers*

Foreign languages teachers can assist their learners to be able to visit families of the target language speakers where they can have a chance to enrich their learning experience. While the success of this endeavour largely depends on openness of these families, community gatherings present opportunities for forging friendships. Furthermore, target language speakers usually attend particular religious denominations or their children attend particular schools. For instance, in South Africa, a learner of German would benefit from visiting institutions such as the *Deutsche Schule Pretoria*, where German parents drop and pick up their children at this institution. Such arrangements can open up other avenues where learners can employ their language skills into real life situation such as having tandem foreign language learning partners.

2.6. *Utilizing Digitization*

Digitization supports a wide variety of resources that can provide real life experiences of target language use. Learners can download audio visual material such as news, songs, movies, which (guided by their teachers) they

³ See info@oktoberfestzim.com

can analyse and unpack in terms of linguistic and cultural orientation. However, as is demonstrated by Kamiya's (2006) discussion of the Japanese learners of English as a foreign language, access to such resources outside the classroom may be limited in other contexts. In cases such as in most African countries such as in Zimbabwe, access to audio-visual material may be compromised by data costs. In South Africa, access to free public Wi-Fi (available at most public schools) makes access to such material affordable. Learners can also join online forums or chat rooms that are dedicated to foreign language learning. 'They can download Apps that support many aspects of language learning and use these while waiting for the bus, or train or travelling to school' (Richards, 2015, 6).

2.7. Communication with other competent members of the L1 community

This idea is suggested by Baker (2004), who (in his discussion of how Japanese learners of English as a foreign language can utilise local resources) argues that study abroad opportunities do not necessarily benefit all learners. 'The reality of studying abroad for the vast majority of Japanese students is that most of their English practice and learning will take place with other non-native speakers of English' (p.82). In this light, most foreign language learners may be encouraged to utilise the experience of not only native speakers but also locals who have stayed in target language communities for prolonged periods of time. For instance, learners of French in Zimbabwe need not to wait for contact with people from France to put their language skills into practice. There are many African nations where French is considered an official language. For instance, they can communicate with other Africans from Cameroon, Senegal, Democratic Republic of Congo (DRC) to mention but a few. Learners of Portuguese can communicate not only with people from Mozambique but also with other Zimbabweans who reside in areas along the border of Zimbabwe and Mozambique, these areas are in the Manicaland province.

The second stage involves communicating with the institutions, organisations, individuals and families who represent the target language community within the society of where foreign learning is being conducted. This is done in order to find out whether they are willing to assist learners in various foreign language project. The third stage concerns itself with the distribution of tasks to learners. However, as already suggested, it might be more helpful to give learners room to go out and research about what they would like to do as part of their CF project. With the teacher's assistance, they can then come up with tasks and objectives of their projects. This will not only promote their autonomy but also learner motivation, investment and interest. Learners can therefore, work on their projects alongside other classroom activities. Foreign language teachers need to act as facilitators of CF, monitoring the progress of their learners every time and availing

themselves whenever these learners need their assistance in issues related to their CF projects.

The final level is that of performance, where learners once or twice a week are supposed to present their progress and experience to the whole class. For their effort, and as part of motivating them, the teacher needs to assess their performance and give them a mark every time they perform. These marks are recorded and thus culminate to the overall CF mark of twenty percent (20%), which is considered as part of the end of semester assessment.

Pertaining to how these presentations are done, learners need to be advised to keep a record of new vocabulary and phrases whose contextual use they may need to explain to other learners. They can also role play to display certain behaviour they might have picked up during the activities of their projects. When done this way, these project can be enjoyable. These projects can be done in pairs so as to maintain student motivation and interest. For instance, Barker (2004) observes that Japanese students do not like to be the only one to try something new. Hence, doing these projects in pairs can not only increase their participation but also their interests. After all, as Benson (2006) observes, recent studies suggest that learners tend to engage in out-of-the class learning activities more frequently than their teachers know. In these activities, they display considerable creativity. Hence, asking them to choose partners for their projects can create a favourable environment for them to show autonomy and creativity.

3. Benefits

Firstly, CF may be considered as a great concept to apply alongside integrative language and culture learning strategies. This is mainly because these learning strategies seek to promote communicative language competence, by teaching language together with its cultural context.

Secondly, the reliance on local competent target language experts might have a hidden advantage; local target language experts have an experience and understanding of both the L1 and the target language cultures. Hence, they can be much more effective interlocutors who (by virtue of understanding the L1 identities of learners) can facilitate negotiation of meaning which in the long run may likely promote not only learners' linguistic proficiency but also their communicative language competence.

Lastly, CF can uplift the learning spirit of foreign language learners, being involved in CF projects can improve learners' motivation and linguistic self-confidence. For instance, Clement et al. (1977) argued that being integrated into a target language speaker community can improve learners' linguistic self-confidence⁴. Linguistic self-confidence refers to "the belief that one has the ability to produce results, accomplish goals or perform tasks

⁴ The concept was introduced in L2 literature by Clement 'to describe a secondary, mediating motivational process in multi-ethnic settings that affects a person's motivation to learn and use an L2' (Dörnyei, 1994, 277). However it was applied to foreign language learning by Clement et. al (1994).

competently” (Dörnyei, 1994, 277). Hence, if this understanding is sustainable, CF, which provides a micro target language setting for pragmatic language use, may promote learners’ linguistic self-confidence. After all, Barker (2004), through his study of the Japanese learners of English language, observes that learners who were involved in out-of-class activities, pointed out that they no longer panic when communicating with expert target language users. Hence, suggesting that being involved in CF, increases their linguistic self-confidence and motivation to engage native target language speakers.

4. Limitations

4.1. Limited Resources

Limited resources can hinder the implementation of CF. Both time and financial resources can be a problem especially in underdeveloped nations where learners have limited financial resources and spend most of their time attending to problems related to their basic survival such as finding food and shelter. Time can also be a problem in institutions of high learning, where students have more than one subject they have to learn. For instance Bachelor of Arts (general) students usually study three subjects including a foreign language. Finding extra time to engage in CF sessions can therefore, be a problem. However, as noted by Roberts et. al (2005), utilising digitization, can help learners to multi task and thus save time and effort. Roberts et. al (2005).

Furthermore, some of the CF resources may not be readily accessible, hence demanding in terms of time and financial resources. However, as is going to be explained (under ‘suggestions’), teachers need to be cognisance of this limitation and make a plan. Teachers also need to make up time or manage their in-class time in a way that affords the presentation and discussions of learners' findings and progress in their CF activities.

4.2. Based on learners’ investment

Since CF thrives on the interest and cooperation of the learner, foreign language teachers need to consider the investment of the majority of learners, so as to establish whether they will find communicative fieldwork activities part of their objectives and goals. For instance, in a Zimbabwean foreign language class, it is very common to find a group of learners who are merely interested in getting a grade (whatever it is, as long as it is a pass). This is well captured in Ahrens’ (2006)⁵ experience that:

There are students who yawn when they listen to me and pitch up in class when they feel like it. Then there are students who refuse to accept what I teach them. They come regularly to the class only to

⁵ Ahrens is credited with establishing the German section at the University of Zimbabwe, through training local learners to take over the teaching of German as a foreign language at this institution.

show me that they do not believe in what I say. Then there is the clown and the women with girlish behaviour (sic) (p.10).

This therefore, demonstrates the need to consider the importance of learners' investment when planning CF. While CF may benefit both learners with short term and long term goals of learning foreign languages, most learners who are driven by short term objectives and who need basic understanding of foreign languages, might avoid activities that will demand them to exert a little bit more effort in the learning process. However, most learners who have long term investments with foreign languages, might display an intrinsic motivation to engage in out-of-class activities that will likely enrich their learning experiences.

4.3. *More work for teachers*

Managing CF projects can be strenuous to teachers who need to monitor the progress of every learner. However, this can actually present an opportunity for foreign language teachers to work closely with their learners and in such an environment, they can understand the problems, limitations and cognitive abilities of their learners. They can then use this information to help their learners master the target language.

5. **Suggestions**

Firstly, as already pointed out in the explanation of the meaning of fieldwork in the context of this discussion, this study advocates for field work to be considered as part of coursework assessment. For instance, in the German section at the University of Zimbabwe, language proficiency assessment is usually calculated as follows:

50= Written end-of-semester Examination
20= Coursework (such as in class tests)
25= Oral end-of-semester Examination
05= Attendance⁶

CF can therefore, be included either under course work or under oral examination. For instance, if it is included under oral examination, this will imply that CF will now contribute twenty percent (20%) towards oral examination, while the final end-of-semester oral performance will contribute five percent (5%) to make it twenty five (25%) percent altogether. The overall assessment will be as follows:

50= Written end-of-semester Examination
20= Coursework (such as in class tests)
25= Oral (20%=CF and 5%=end-of-semester oral)
05= Attendance
100%= Total

⁶ Including attendance in assessment is done *as a way* of encouraging learners to regularly participate in learning activities, see Ahrens (2006, 10).

However, this is just one way CF can be incorporated into the overall assessment of language performance, foreign language teachers can introduce their own ways of calculating assessment. The major point is that they should attempt to incorporate CF in their assessment.

Secondly, foreign language learners should be taught a culture of recording most of their CF sessions. They can write down new phrases (and their particular contexts), vocabulary etc. Most importantly, they should attempt to record audio visual material which may prove handy later. Audio visual material can be considered a vital exhibit not only for classroom presentations but most importantly for revision purposes. This is the material that learners can revise (mainly at home) and carefully establish its meaning. Through revision, they can establish new points of interests that they might have overlooked during the actual CF sessions. In the long run, this culture of recording information can be helpful in moulding these learners to be effective researchers, who know how to gather and analyse information.

Lastly, in some instances where the limitation of resources such as time and financial resources might threaten the progress of CF, foreign language teachers (on behalf of particular concerned learners) can invite some of the organisations, institutions or individuals to give presentations or (over a cup of tea) casual talk in the present of these learners. Embassies and most non-profit making organisations that are involved in humanitarian work are usually inclined to accept such invitations.

6. Conclusion

The main interest of this discussion was to unravel the means by which foreign language teachers can improve their learners' pragmatic experience of using target language through encouraging them to engage in communicative field work (CF). This discussion comes in the wake of the entrenched understanding of foreign language learning as an activity condemned to take place within the walls of the classroom. This article therefore, while acknowledging the significance of the classroom in foreign language learning, argues that, even though foreign language learning takes place in environments that are divorced from main target language communities, pockets of local target language resources can be utilised for this purpose. The article therefore, explores how CF can be implemented and thrive through tapping into these local resources. The resources that are identified in this study include (*inter alia*) non-governmental organisations (NGOs), various institutions that are either concerned with the target language and culture or simply originate from the target language countries, target language community gatherings, families of target language speakers and embassies.

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