

The Cognitive Interface: Cross-linguistic Influence between SiSwati and English

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Abstract

This study reports evidence of cross-linguistic influence (CLI) that surfaced from English compositions of SiSwati learners of English in Swaziland, where English is a second language. Although CLI has been studied widely in other languages, it has not been studied in SiSwati and English, and its implications for instruction are not known. Specifically, this study examined cases of negative transfer from the former to the latter, by identifying the cognitive influence participants' knowledge of their first language (L1) exerted on the structural acquisition of their second language (L2); how the knowledge and command of their L1 thwarts the process of learning L2, and the overall implications of this phenomenon on teaching practices. A total of sixty (60) narrative compositions from thirty (30) participants were collected, transcribed, and analyzed using contrastive rhetoric and categorical aggregation methods to establish consistency of the structural patterns in L2 learners' performance. In order to construct a psycholinguistic path that learners of English in Swaziland traverse during the acquisition of an L2, a weak version of contrastive analysis (CA) was used. The results revealed errors in the use of verbs and subject-verb agreement (SVO); however, a lot of errors were a function of lexical and structural transfer. Overall, this study is useful in improving language instruction in Swaziland and other similar ESL contexts.

Keywords: CLI, bilingualism, SiSwati, transfer, interference, interlanguage

Introduction

Cross-linguistic influence (CLI) is one of the main linguistic areas that has been studied and debated extensively in second language acquisition. Several scholars (e.g., Dechert & Raupach, 1989; Ellis, 2006; Gass & Selinker, 2008; Jarvis, 1998; Odlin, 1989; Schwartz & Sprouse, 1994, 1996) have contributed significantly to this area of research by providing a landscape for CLI. Within the generative study of L2 acquisition, the study of CLI initially focused largely on syntactic phenomena, with researchers debating whether the entire syntactic system of the L1 is transferred to an L2 (i.e., Full Transfer/Full Access Hypothesis) or if only certain parts of the syntactic structures are subject to transfer (i.e., the Minimal Trees Hypothesis) (Schwartz & Sprouse, 1996). However, despite the debates on language transfer, there is a consensus that, to a certain extent, ESL learners compare the syntactic structures of their L1 with their L2, using approximative systems (Nemser, 1971b), and consequently create interlanguage grammars.

Studies on transfer have been viewed in phonology, syntax, semantics, and morphology. In phonology, grammars have been discussed in terms of segmental phonology, markedness, syllable structure, and stress. While in syntax, focus has been on universal grammar and universal principles. In semantics, transfer studies have looked closely at the transfer of meaning, while in morphology studies have looked at the transfer of units of meaning (O'Grady, Archibald, Aronoff, & Rees-Miller, 2005). Earlier studies such as Corder (1976), James (1980), and Tarone (1981) shed light on the importance of transfer errors, while later studies such as Gass and

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Selinker (2008), Grabe and Kaplan (1989), and Lennon (1991) extended the discussion of the importance of error analysis in language acquisition, emphasizing how errors can be used productively to enhance language learning. To this end, there is general consensus that errors should not be seen as learners' failure to achieve L2 proficiency, but as a window displaying the psycholinguistic terrain learners traverse as they learn an L2. Error analysis is therefore important from an instructional point of view, especially in ESL contexts, where learners have already mastered their L1 syntax.

Connectionism is one of the theories that have been used by many studies to explain the consequences of CLI. Even though connectionism could be traced back to Thorndike (1931), who proposed the law of Readiness, the law of Identical Elements and the law of Exercise (Tracey & Morrow, 2006), it is only recently that connectionists approaches within second language contexts have begun to be used (Gass & Selinker, 2008). The law of identical elements stresses that "the more elements of one situation are identical to the elements of the second situation, the greater the transfer, and thus the easier the learning in the second situation" (Tracey & Morrow, 2006, p. 35). The reverse is also true; elements not identical between the first and second situation cause inhibition on learning in the second situation. Connectionism recognizes learning as a network, strengthened by regularity and identical patterns (Gass & Selinker, 2008). Gass and Selinker (2008) posit that learners make associations between what they know to what they don't know by "extracting regular patterns from the input, creating associations between larger units until complex networks are formed" (p. 221). Therefore, in terms of theoretical perspectives, the study used connectionism to establish a linguistic confluence between SiSwati and English.

SiSwati and English in Swaziland

The functional linguistic landscape between SiSwati and English in Swaziland is dual, with each language dominant in its own use. From a sociolinguistic perspective, Swaziland is a homogeneous language society, and SiSwati is a native language spoken by almost everyone. Typologically, SiSwati can be classified under Nguni languages such as Zulu, Xhosa, and Ndebele; all are largely agglutinative languages spoken in Southern Africa. They are characterized by rich morphosyntactic structures and mutual intelligibility. It is estimated that at least three (3) million people, both in Swaziland and South Africa, speak SiSwati. English, on the other hand, is used as a second language and medium of instruction in all schools (Mthethwa, 2014). Furthermore, English in Swaziland still maintains its linguistic prestige that dates back to colonial times. In schools, for quite a long time, students were expected to speak English, and those who spoke vernacular (SiSwati) were punished. The purpose for enforcing the use of English was arguably to strengthen students' speaking skills, as it is one of the most important skills of language learning (Brown, 2007; Richards & Renandya, 2009). However, later, this undocumented policy in which students were required to speak English during school hours faced criticism and was consequently marginalized. The counter-argument was that it was improper to punish students for speaking their own languages. Currently, inasmuch as schools enforce the speaking of English during school hours, students are not normally punished for speaking vernacular in most schools.

English in Swaziland has not only remained a language of power and prestige, it is also a subject that must be passed in schools. In primary, secondary, and senior secondary schools, students' progress from one grade to the other is determined by their performance in English; they have to pass English, together with other subjects, to proceed to the next grade. If they do not pass English, they are required to repeat the grade. A grade of D or better is preferred, while anything less than this is considered a fail. However, according to the Examination Council of Swaziland's external examination reports, getting the minimum grade is still a challenge for most students. In almost every report the Examination Council of Swaziland releases, examiners complain about the glaring override that students' knowledge of their L1 exerts on their L2 structural output, resulting in interlanguage grammars. Overall, students are not performing well in English; hence, the need to examine the interface between English and SiSwati for purposes of improving instruction.

The Role of L1 in the Acquisition of L2

There is no area of second language acquisition that has received more attention than the role of L1 in the acquisition of L2, or L1 and L2 in the acquisition of L3 (Jarvis, 1998; DeAngelis & Selinker, 2001). The interrelationship between L1 and L2 has been an issue stimulating extensive discussion in applied linguistics, mainly in second language acquisition (Cenoz, 2003; Gass & Selinker, 2008). Discussions in the past focused on the role of L1 in the acquisition of L2, and research on transfer reveals that L1 plays a role in the acquisition of L2 (Cortés, 2006; Dechert & Raupach, 1989; Ellis, 2006; Gass & Selinker, 1992, 2008; Jarvis, 1998; Odlin, 1989; Schwartz & Sprouse, 1994, 1996). Traditionally, L1 transfer has been discussed in two main areas: negative transfer (i.e., when L1 interferes with the acquisition of L2), and positive transfer (i.e., when L1 assists the acquisition of L2) (Ellis, 1997; Gass & Selinker, 2008; Odlin, 1989). A majority of studies on transfer have used contrastive analysis (CA), contrastive rhetoric (CR), creative construction (CC), and constructive underlying proficiency (CUP) to explain the transfer phenomena. Earlier studies used contrastive analysis to predict the potential areas of difficulty between L1 and L2 (Gass & Selinker, 2008; James, 1980; Lado, 1957). This approach however has changed over time. Now, there are new ways of conducting contrastive analysis (Hulk & Müller, 2000; Lardier, 2009; Müller & Hulk, 2001; Sorace & Serratrice, 2009). A functional approach based on studying patterns exhibited in languages worldwide has become a focus for L1 and L2. This approach focuses on the study of how languages function; using typological universals in which linguists attempt to discover the similarities and differences between languages (Gass & Selinker, 2008).

However, learners subconsciously compare languages using the contrastive analysis hypothesis, especially in ESL contexts, where students have already grasped their L1. For instance, Lardier, (2009) notes that “the notion of ‘patterns’ is a holdover from behaviorist psychology and makes little sense from a theoretical linguist’s point of view (although, perhaps it might not be such a far-fetched notion from a learner’s perspective)” (p. 190). Lardier’s observation tends to put learners at the center of the periphery and emphasizes that, more often, learners intuitively compare the syntax of the languages they learn, by framing the target language within the confines of the L1 parameter, without realizing the syntactic constraints on both languages. Such a claim by Lardier is fully observed in ESL classes where students written discourses encase the notion of transfer, resulting in the formation of interlanguage structures.

How SiSwati Compares to English

To shed light on the learners’ psycholinguistic path, I begin by constructing a linguistic description of the learners’ first language (L1) by using a weak version of contrastive analysis to provide a synopsis of how SiSwati and English morph-syntactic structure compares. Laying this foundation is essential in exemplifying how CLI between SiSwati and English may occur. This inventory is not prescriptive; it only serves as a premise for understanding the origins of some of the errors that surface from learners’ discourses, and how learners use their L1 experiences to support the learning of L2. This study does not emphasize the contrastive analysis hypothesis based on the work of Lado (1957), *per se*. Instead, the study focuses on what constitutes a logical comparison of the L1 and L2 from the learners’ point of view and not that of a theoretical linguist.

Linguistic Typology

The categorical classification of languages into different linguistic typologies has made it easier to group languages in terms of their various functional categories such as subject-verb-object (SVO), pro-drop, topic prominence, genitive, and other classifications (Gass & Selinker, 2008). Regarding these linguistic typologies, as stated earlier in this paper, SiSwati is classified as an agglutinative language, with a rich morph-syntactic structure. Like English, SiSwati follows the SVO parameter, but technically differs in the way it dispatches its functional morphological segments within a sentence, particularly the verb; as a result, the verb in SiSwati conjugates differently from that of English.

Like in English, example 1 captures stable conditions such as habitual events not limited by time. However, the subject-verb-agreement in SiSwati is expressed in prefixes rather than suffixes. In the given example, for instance, the subject-verb-agreement is forged by the prefix morpheme, /u-/ for first person singular, while its English counterpart expresses agreement using a suffix, /-s/. Therefore, there is a difference in the position of affixes in SiSwati verbs with respect to how the verb dispatches its agreement. Also, while SiSwati verbs inflect prefixes for plural subjects, its English counterpart does not inflect anything.

Example 1.

<i>Subject</i>	<i>Verb</i>	<i>Object</i>
Siphephelo	u tsandza	sinkhwa
Siphephelo	likes	bread

Example 2 shows how the inflection of the morpheme /ba/ to the verb /tsandza/ forges agreement between the verb and the plural subject marked by the proper nouns *Litany* and *Siphephelo*.

Example 2.

Litany na Sphephelo	<i>batsandza</i> sinkhwa	(verb prefix marks a plural subject)
Litany and Sphephelo	<i>like</i> bread	(∅ verb affix)

Null Subject

SiSwati is a pro-drop language with rich agreement. The subject can be null in both oral and written expressive forms, without mitigating grammar, precision, and clarity of the sentence. Null subjects in SiSwati are used with interrogative and declarative sentences when common knowledge about the subject is shared.

In example 3, while English requires the use of either the proper noun or pronoun as the subject, SiSwati allows the omission of proper nouns functioning as subjects of sentences. Such omission in SiSwati does not compromise the grammar and semantics of the sentences.

Example 3.

Question	Where is Snovuyo?	
Response	Snovuyo went to school. Snovuyo uye esikolweni. ...uye esikolweni.	(SiSwati licenses covert and overt subjects)
(∅ Subject)	...went to school.	(unacceptable in English)

Verb Tense

Tense in SiSwati is marked both lexically and morphologically. Lexical tense markers such as adverbs of time occupy nominal or final positions in sentences. Such as in example 4, the position of the adverb of time whether it is nominal or final does not matter in SiSwati.

Example 4.

<i>Lamuhla</i> , Litany uyahamba.	
<i>Today</i> , Litany is leaving.	(nominative adverb)
Litany uhamba <i>lamuhla</i>	(final adverb)
Litany leaves <i>today</i> .	

However, there is a huge difference between SiSwati and the English verb on morphological inflections. SiSwati has complicated agglutinative verbs, which express multiple linguistic functions, depending on the context. As a

result, verbs in SiSwati conjugate for a number of reasons such as agreement, number, tense, and complementizer. That is, the verb is capable of imbedding a number of morphological segments to express different linguistic functions. In example 5, /hamba/ 'leave' is in simple present form. The first prefix /u-/ forges agreement with the first person singular subject, while the second infix /-tawu-/ 'will' marks the future tense. The final vowel /-a/ on the verb /hamb**a**/ 'leave' agrees with either the present or future tense. For the past tense, with a plural subject, the verb conjugates differently.

Example 5.

Sphephelo *utawuhamba* lamuhla.
Sphephelo *will leave* today

In example 6, the suffix /-a/ on the verb /hamb**a**/ 'leave' becomes /-e/ and functions as a past tense complementizer of the adverb of time /itolo/ 'yesterday'. The prefix agreement marker /u-/ in singular subjects becomes /ba-/ in plural subjects. On the other hand, the English verb does not imbed morphological segments like SiSwati.

Example 6.

Sphephelo na Litany *bahambe* itolo (affixed verb)
Sphephelo and Litany left yesterday (Ø affixed verb)

Topic Prominence

Like most topic prominent languages, SiSwati organizes its syntax around the topic comment structure, while English does not license topic prominence. For instance, while English uses 'I' as a subject of a sentence, and 'me' as an object, SiSwati uses both 'I' and 'me' in the subject position, resulting in emphatic subjects. In example 7, the personal pronoun /mine/ and the prefix /a/ are co-referential and emphatic. Emphatic subjects in SiSwati are used mainly to emphasize the grammatical agent in a sentence. Thus, it is used more often in declarative sentences.

Example 7.

(*Mine*) *a-ngi-tsandzi* kuya esikolweni ngilambile.
(*Me*) *I* don't like going to school hungry.

Overall, this comparative analysis is not exhaustive in as far as depicting the linguistic landscape between SiSwati and English is concerned; it only provides a very basic illustration of how these languages compare, and what is likely to surface in students' written discourses in the event of CLI.

Negative Transfer

The observation by Ellis (2006) that negative transfer occurs when L1 influences the acquisition of L2 is a plausible explanation for the syntactic "borrowing" that surfaces in some L2 learners' production, where the most dominant language 'forces' the learner to use it as a crutch for learning the less dominant language, causing errors to the latter. Studies on negative transfer have been discussed in terms of phonology, syntax, semantics, and morphology. In phonology, emphasis has been on segmental phonology, markedness, syllable structure, and stress; while in syntax, focus has been on universal grammar and universal principles (O' Grady, Archibald, Aronoff, Rees-Miller, 2005). On syntax, for instance, Chan's (2004) study presents evidence of syntactic transfer from Chinese to English. The study focused on ESL errors resulting from incorrect placement of adverbs, lack of control of the copula, inability to use the 'there be' structure for expressing the existential or presentative function, failure to use the relative clause, and confusion in verb transitivity. The study reported that many Chinese ESL learners tended to "think" in Chinese first before they wrote in English. As a result, the surface structures of

many of their interlanguage strings were identical or very similar to the usual or normative sentence structures of the Chinese. The study also reported that the extent of syntactic transfer was particularly large for complex target structures among learners at lower proficiency levels.

On a similar note, Alhaysony's (2012) study presents an elaborate account of the types of errors that were produced by Saudi female EFL learners on the use of articles. In this study, written samples of first-year female learners were analyzed to determine the magnitude of L1 transfer errors. The study reports that 57% of the errors were interlingual, indicating the influence of the first language; there were also intralingual article errors, which accounted for 42.56%. The study also reports that L1 interference strongly influenced the process of second language acquisition of articles, leading to a negative effect in learning the second language. In order to understand the magnitude of negative transfer Alhaysony's study can be viewed together with that of Haznedar (2010) who investigated whether the discourse conditions on subject drop were vulnerable to CLI in bilingualism. The study was longitudinal; it examined the overt and the null subject of a bilingual Turkish–English child the ages of two and four. The study reports that the overt use of subject in the Turkish of the bilingual child was twice as high as in that of a monolingual child (Haznedar, 2010). These findings resonate with the idea that the function of L1 is more than just being a first language; it also buttresses the acquisition of L2, especially for learners whose proficiency levels are low.

Therefore, to some extent, a learners' L1 serves as a 'referent language' from which they draw an approximation of an L2's underlying forms. Researchers in SLA such as Doughty (1991) and Spada (1997) reveal that mitigating L1 transfer errors by using form focused instruction (FFI) improves L2 acquisition. That is, making learners aware of the potential cross-linguistic areas of difficulty in their L2 improves the acquisition of the target language. The use of FFI essentially draws the problematic target structures to the learners' attention. For instance, Sersen (2011) reports a study in which participants were made aware of the CLI areas in their target language. The study reports that, by making participants aware of their cross-lingual errors, their writing improved.

Teachers who are bilingual or multilingual, by understanding the linguistic systems of L1 and L2, and using the weak version of contrastive analysis, can trace the origins of learners' discourse errors because they know the languages in interaction, and they can identify their underlying form in the learners' output. Brown (2007) emphasizes that "production data is publicly observable and is presumably reflective of a learners underlying competence—production competence" (p. 216). Therefore, in order to understand the psycholinguistic path ESL learners' traverse when learning an L2, information could be derived from their performances. Teachers can also determine useful teaching strategies by analyzing the learners' production errors (Noor, 1996).

Research Questions

There is scarcity of studies that have examined the linguistic differences between SiSwati and English in an attempt to inform teaching practice and curriculum development. In view of this gap in empirical research, the study investigated the following research questions: First, what types of errors are surfacing from English compositions of SiSwati learners of English? Second, to what extent are the errors explained by cross-lingual influence? Third, what are the error's implications for pedagogy and teaching practice in Swaziland?

Methodology

Design

This was a case study, drawing from the interpretivist philosophy. Choices about research paradigm, designs, research questions, topics, participants, site for data collection, conceptual framework, and the role of the researcher affect the data we collect; and the "researcher's expectations when analyzing data are preceded by what the researcher expects to find" (Hays & Singh, 2012., p. 307). In this study, for instance, based on the CLI

literature, I expected to find cross-linguistic errors from the data because of evidence in the literature demonstrating that L2 learners, who already know their L1, use an L1 to buttress the learning of L2. This means as a researcher, I had predetermined ideas about what to find from the study, with regard to the types of errors likely to surface. Therefore, pre-existing codes such as tense, use of regular and irregular verbs, use of conjunctions, subject-verb agreement, lexical, and structural transfer were considered as pre-codes for data analysis. However, I was receptive of other codes that emerged during data analysis.

Participants

Participants in this study were thirty (30) ESL learners, attending Grade 4 in a semi-urban school in Swaziland. English, as stated earlier on, is a medium of instruction in Swaziland schools. The school was ideal for this study because the majority of learners speak SiSwati as an L1 and English as an L2; as opposed to urban schools that are largely multicultural and some learners do not speak SiSwati as an L1. The school's grade levels range from 1st to 7th grade. Only the 4th graders were asked to participate in the study. They were appropriate because at the fourth grade learners are expected to have grasped most of the basic L2 syntactic structures such as simple/compound sentences, even though they may still be struggling with more complex grammar. Overall, there were 19 girls and 11 boys. Their ages ranged between 9 and 12 years. All participants spoke SiSwati as L1 and English as L2.

Data Collection

Participants were given the topics *My Friend* and *My First Day at School* to write about. The first topic was descriptive while the second was largely narrative. Participants wrote about each of the topics outside regular class time; they were given an hour to complete both compositions. Because the topics were free-response, participants were not guided on how to write each topic. Thus, each participant chose and developed their own writing path and style. Overall, a total of sixty compositions, which were all legible, were eventually collected from the participants.

Analytical Procedure

Analytic induction and categorical aggregation were the main overarching data analysis procedures (Hays & Singh, 2012). Overall, data analysis involved four steps which were as follows: transcription, analytic induction, categorical aggregation, and linguistic extrapolation.

Step 1 (Transcription)

First of all, the compositions were grouped according to the topics *My Friend* and *My First Day at School*. Since they were hand-written, the next step was to transcribe them carefully, ensuring that the transcription and the original manuscript were identical. That is, misspelled words, word order, and other errors were not corrected during the transcription. The transcription ensured that the data was readable and also easier to identify an overarching pattern of errors across the data.

Step 2 (Analytic Induction)

This was an iterative process which allowed in-depth engagement with the data in a search for the learners' errors and evidence of the CLI phenomenon. At this step, every error identified was analyzed in terms of its relevance to the pre-existing codes such as tense, use of regular and irregular verbs, use of conjunctions, subject-verb-agreement, lexical, and structural transfer that had been developed prior to the analysis. However, these codes were not exclusive; there was room for other emergent codes arising from the data analysis, which did not emerge.

Step 3 (Categorical Aggregation)

This step involved analyzing the categories further, looking for meaning and overlaps, examining the overall frequency of the errors in each category, counting and computing percentages. Some of the pre-existing codes such as *use of conjunctions* were later collapsed; there were no errors found in relation to the *use of conjunctions* from the data. Therefore, all the codes that were not supported by the data were collapsed.

Step 4 (Linguistic Extrapolation)

Linguistic extrapolation involved classifying the final categories to major linguistic domains such as syntax, morphology, and semantics. For instance, errors that pertained to the arrangement of words and phrases and created ill-formed sentences were classified under syntax. Errors that pertained to the logical aspects of meaning were classified under semantics, and lastly errors that pertained to the placement of units of meaning in a word were classified under morphology.

Results

Figure 1 shows the summary of the frequency of errors in each category. Although only a few examples are selected for discussion from each category, the percentages reflect the overall proportion of the errors in each category.

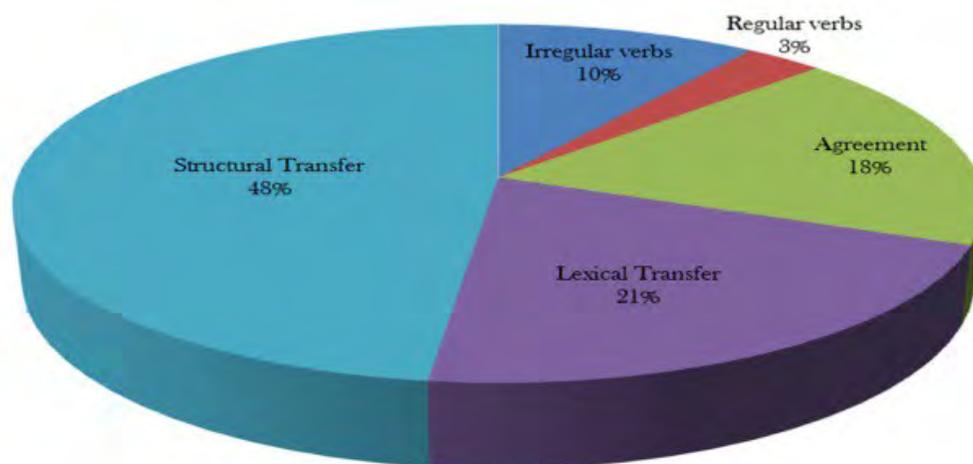


Figure 1. Proportion of Errors

A very small proportion of errors accounting for 3% of the total errors were found in relation to the use of verb tenses. These errors were found in all the data; however, the errors were not as prominent as the other errors discussed herein. About 10% of the errors were associated with the use of irregular verbs, while 18% were a result of non-agreement between the subject and the verb. For instance, in some cases, participants could not use either the main verb or an auxiliary verb that agreed with the subject, leading to both grammatical and semantic discord. Twenty-one (21%) of the errors were a result of lexical transfer, while 48% were structural errors. Each category of errors is presented with examples below.

Use of Regular Verbs (3%)

There were errors caused by inconsistency of the tenses within sentences, where the main verbs did not agree with the corresponding auxiliary verbs. That is, some participants had difficulties sustaining complementing

tenses across their discourses. Although example 8 (use of verb tense) was not a prominent problem, participants showed that they did not understand the operation of both the regular and irregular verb tense in English. Example 8, for example, shows that participants were cognizant of the grammatical rules governing the use of tense in English, i.e., that the English verb inflects the morpheme /-es/ to mark the present tense; however, they did not understand how to complement the simple present tense with the auxiliary verbs.

Example 8.

My mother *washes* my trouser because it *was* dirty.
My mother *washed* my trouser because it was dirty.

Use of Irregular Verbs and Tense (10%)

Also, there were errors associated with the use of irregular verbs. In example 9, participants did not realize that irregular verbs do not take inflectional morphemes to mark the past tense; as a result, they inflected /-ed/ to an irregular verb. Apparently, the problems of tense did not seem to originate from the learner's L1; instead, they were part of the overgeneralization of the grammatical rules of English, such as assuming that all verbs inflect /-d/ or /-ed/ to conform to the past tense, and this is explained by the principles of universal grammar.

Example 9.

The bus was late. It *taked* an hour to come to school.
The bus was late. It *took* an hour to arrive at school.

Use of Agreement (SVO) (18%)

There were a number of errors on agreement illustrated by example 10. In this example, participants did not understand how to connect the subjects of the sentences with the verbs to forge agreement within the sentences. In most of the participants' compositions, for instance, there was incongruence either between a singular and a plural subject, or between the main verb and its auxiliary. The majority of participants showed that they were still struggling to maintain congruence between the subjects of sentences and the verbs. However, there was no evidence from the data to suggest that the errors were caused by CLI.

Example 10.

I *walks* to school if there is no bus.
I *walk* to school if there is no bus.

As illustrated earlier in examples 5 and 6, the SiSwati verb uses prefixes for agreement for both singular and plural subjects. However, in all the data, participants did not use prefixes to mark agreement on the English verb, which showed they understood how prefixing the main verb works differently in the two languages. For instance, they understood that English verbs as opposed to SiSwati verbs do not inflect prefixes but suffixes to mark the SVO for singular subjects, even though they did not understand when to inflect these grammatical morphemes to mark agreement.

Lexical Transfer (21%)

Some participants used cultural loan words. The words were 'borrowed' from their L1 to complete sentences in the L2. That is, when participants lacked the target language vocabulary, they used L1 words to fill the void in their L2. Example 11 shows evidence of lexical transfer from L1 to L2 in which participants 'borrowed' words from L1 in order to complete L2 sentence structures. Apparently, the participants did not know or could not retrieve L2 equivalent words from the target language to refer to *sweet potato* and *jugo beans*; hence, they reverted to lexical loans. According to Bella (1999) when ESL learners experience gaps in their L2 syntactic structures, they adjust their L2 writing by using items that are available from their L1. In this case too, participants used available

vocabulary from their L1 to support their L2 writing. Apparently, it does not appear that participants did not know that the loan words were not English; instead, they used these nouns to meet the syntactic requirements of the target language structure. Since both SiSwati and English are SVO, they understood that there should be an object after the verb of the target structure, but were deficient of appropriate nouns in English that expressed a similar concept. Probably, the nouns *jugo beans* and *sweet potato* are not frequent vocabulary words in their learning experiences; as a result, these words were not in their vocabulary inventory.

Example 11.

- *...but I do not like *bhatata* and *tindlubu*.
- ...but I do not like *sweet potatoes* and *jugo beans*.

Also, some participants transferred L1 conceptual word meanings to L2; thus, creating a vague meaning in the target language. Example 12 shows CLI of L1 vocabulary extensions to L2. ESL learners begin by assuming that every word in their L1 has a single translation equivalent in an L2. In this context, the idea of single translation equivalents between L1 and L2 influenced learners to assume languages fit like hand and glove with regard to the expression of equivalent concepts. Thus, participants did not conceive that English has rich vocabulary and can use different words for different concepts, while SiSwati relies on limited vocabulary, rich in semantic elasticity. For instance, the conceptual meaning of the verb 'see' in SiSwati is semantically elastic; it can be stretched and used in other linguistic contexts; where English would use a different verb. Specifically, in SiSwati the verb 'see' and 'recognize' have similar connotations. Therefore, this explains why the participants used 'see' in the context of 'recognize' in their target language structures.

Example 12.

- *My friend was dressed well and I did not *see* her.
- My friend was dressed well and I did not *recognize* her.

Structural Transfer (48%)

Structural and topic comment errors formed a big portion of CLI. Overall, these errors were salient in most of the language structures participants constructed. Apparently, the majority of participants used L1 syntax to determine the organization and arrangement of the L2 syntax. Example 13 (a) and (b) reflect the differences between SiSwati and English in terms of how each language organizes its syntax. Although SiSwati is SVO, it is not a genitive language. Therefore, the use of nouns to modify other nouns does not occur. Thus, the word order in *baby of my mom* for *umntfwanamake* is acceptable and grammatically correct. However, since SiSwati does not use genitives, the learners were not aware of precise ways to express the same idea using genitives such as *my mom's baby* or *baby's clothes*. The differences in the typologies between SiSwati and English explain why participants maintained the L1 modifying matrix as a rule to extrapolate their L2 structures.

Example 13.

- (a)
 - *...after that I washed the *baby of my mom*.
 - ...after that I bathed my *mom's baby*.
- (b)
 - ...she was in the river to wash the *clothes of the baby*.
 - ...she was in the river to wash the *baby's clothes*.

Topic-Comment

There were also cases in which participants transferred topic comments from SiSwati to English, and this error was common in most of the data. In example 14, participants transferred the linguistic properties of their L1 to L2, and generated L2 sentences with emphatic subjects. This behavior was caused by the fact that SiSwati licenses emphatic subjects in sentences, while English does not. In English, for instance, *I* and *me* serve different grammatical functions. *I* functions as a subject of a sentence, while *me* functions as an object of the same (Morenberg, 2002). Because of the presence of emphatic subjects in the participants L1, the participants extended that linguistic feature from L1 to L2, resulting in emphatic subjects in English, where the pronoun *I* functioning as the subjects of sentences and the pronoun *me* functioning as an object were used in the subject position. These cases of structural transfer and topic comment were common in the learners' discourses, and it showed how the learners' L1 influenced their L2 writing.

Example 14.

- (a) *(Me)* I go to school at...
I go to school at...
- (b) *(Me),* I don't bring money to school.
I don't bring money to school.

Discussion

Summary

This study revealed evidence supporting the existence of CLI between SiSwati and English, mainly that of negative transfer, which inhibits learning of the latter. Apparently, the errors of negative transfer in this study constituted a large proportion of all the errors that surfaced from the learners' discourses. Therefore, these errors cannot be ignored, if proficiency and grammatical correctness are the fundamental goals for English language instruction in Swaziland and other similar linguistic contexts. As seen in previous studies, such as Alhaysony (2012) and Chan (2004), most of the learners' L2 production errors in writing are a function of their continuous approximation of the target language's underlying systems. That is, ESL learners, by relying on their L1 syntactic forms, commit systematic errors that largely deviate from the norms of the target language. The observation by Ellis (2006) that negative transfer occurs when L1 influences the acquisition of L2 is a plausible explanation for what surfaced in this study between SiSwati and English, regarding CLI. Moreover, most of the literature discussed earlier support the notion that learners supplement their L2 deficiencies by using L1 linguistic structures, which are often not compatible with the target language structures. Apparently, even in this study, there is evidence of interference, including lexical borrowing. In this case, SiSwati, which is a dominant language "forced" its way to the learners' L2 structures, causing considerable amount of errors to the latter. Overall, such errors should not be seen as learners' failure to attain proficiency in the target language, but as a window through which to view their thinking pathways within their interlanguage continuum.

Implications for Instruction

This study has implications for teaching. Using form focused instruction (FFI) in which L2 learners' attention is drawn explicitly to problematic target language structures is a useful approach to help mitigate ESL learners' performance errors. The use of grammar consciousness raising (Ellis, 1997) is beneficial, especially at levels where L2 learners understand discrete points of metalinguistic explanations. Therefore, moving beyond learning the target language to learning about the target language resolves some of the complexities in second language acquisition. Researchers such as Brown (2007) suggest that FFI is effective when incorporated into a learner-centered curriculum. For instance, as seen in Sersen's (2011) study, when teachers made learners aware of their errors through direct instruction, the acquisition of their L2 improved. Perhaps, in the case of SiSwati and

English, the use of the functionalist approach by teachers, focusing on language awareness and FFI can mitigate the consequences of CLI.

Since no studies were found that investigated CLI between SiSwati and English, there is no evidence that the English language curriculum in Swaziland is informed by local research. There is also no evidence that teachers' classroom activities in English language learning are informed by action research. The role of a well-coordinated action research in the classroom, involving teachers in the analysis of the learners' errors, can successfully mitigate errors of CLI, and further guide the development of a research-informed curriculum, responsive to the learners' language needs. However, as noted by Brown (2007), teachers and researchers should not be blinded by just looking for errors, but they should also reinforce correct language forms resulting from positive transfer, so that these forms are fossilized in the learners' L2 inventory, while, on the other hand, ill-formed structures receive instructional attention.

Conclusion

While this study revealed something unknown about CLI between SiSwati and English, it is important to highlight that one common difficulty, also acknowledged by most researchers, is that understanding learners' approximation systems cannot be observed directly, but they can be inferred (Brown, 2007). Also, these approximation systems often change, resulting in unpredictable variations on learners' language output; thus, making it difficult to distinguish whether the output is a representation of an *error* or *mistake*. In consideration of this observation, this study used frequency, syntactic similarity, and the systemacity of the errors across the vast majority of all the data to overrule the possibility that learners were just making *mistakes*. The frequency, syntactic similarity, and systemacity of the errors across the data were evidence to support the presence of CLI between these two languages. However, more research in areas of phonetics, phonology, morphology, and syntax, using connectionist's models, still needs to be conducted in order to ascertain the cognitive levels of CLI between SiSwati and English.

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