Language Transfer in a Dual Immersion Program: Cognates, Morphology and Language Contrasts

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Abstract

This comparative case study explored language transfer patterns implemented in two elementary dual immersion classrooms. Following Dual Immersion norms, a strict separation of languages was maintained, which inhibited, but did not eliminate, the teachers’ use of transfer practices. Research data included three months of classroom observations and monthly interviews with teachers. Findings showed that teachers used cognates and morphology to demonstrate similarities between Spanish and English, and they contrasted languages to help students notice and understand differences between the languages. Students evidenced independent use of these strategies (cognates, morphology and language contrasts), and transfer was observed both from L1 to L2 and from L2 to L1. Teachers’ beliefs about transfer influenced whether and how they taught it. Instructional implications include an expanded focus on theory and instructional practices that support transfer, and meaning-based vocabulary and comprehension instruction. Programmatic implications include reconsidering the strict language separation rule in Dual Immersion programs.

Index terms: Dual Immersion, cognates, morphology, language contrasts, emergent bilinguals, language transfer

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Morphemes and Spanish-English cognates are two sources of student knowledge that Dual Immersion (DI) teachers might build upon to facilitate acquisition of language in both Spanish and English. However, since a core principle of DI has been a complete separation of the two languages during instruction (Cummins, 2008; Lindholm-Leary, 2001), transfer may not be a prevalent instructional practice despite recent research showing its efficacy with emergent bilinguals (EBs) (Escamilla et al., 2014).

Genesee, Lindholm-Leary, Saunders & Christian (2006) noted that transfer enables bilinguals to use their collective linguistic resources, which include common Latin and Greek-based morphemes (smallest units of meaning) and 10,000 to 15,000 Latin-based Spanish-English cognates (Lubliner & Hiebert, 2011). Since cognates are generally academic vocabulary in English but common words in Spanish (Lubliner & Hiebert, 2011), it has been suggested that native Spanish-speakers may have a “cognate advantage” (Kelley & Kohnert, 2012, p. 192) in learning English academic vocabulary. However, EBs’ English vocabulary development typically lags that of their monolingual peers, compromising their ability to comprehend texts (August, Carlo, Dressler & Snow, 2005; August & Shanahan, 2006). Despite the strict separation of languages, some teachers are using transfer practices. This comparative case study describes how two elementary DI teachers employed cognates, morphology and language contrasts to teach for language transfer, and it identifies some factors that influence their decisions about the use of transfer practices.
Theoretical Framework

Skills, concepts and knowledge learned in one language can transfer to another language to facilitate learning (Cummins, 1979; Goldenberg, 2008; Jiménez, García & Pearson, 1995, 1996). A multilingual perspective states that EBs employ all their linguistic resources to learn languages and learn in those languages (Gort, 2006, 2008; Reyes, 2006). Based on a holistic view of the EB, a multilingual perspective acknowledges the funds of knowledge (Moll, Amanti, Neff & Gonzalez, 1992) and “linguistic, literacy and cultural repertoires” (Bauer & Gort, 2012, p. 5) that students bring to their literacy activities in school.

The reciprocal relationship between the first (L1) and second (L2) language undergirds the multilingual perspective. Cummins’ (2007) common underlying proficiency model (CUP) posits that the L1 and L2 develop symbiotically to enhance both languages. Cummins’ (2008) theoretical basis for the CUP model is the role of pre-existing knowledge as a foundation for learning, along with his interdependence hypothesis (1979, 2001) which states that when language is developed in an L1, it will transfer to the L2 under the appropriate conditions. He (2008) also argued for the purposeful use of students’ L1 to support their L2 and creating the appropriate conditions to allow transfer to occur, including accessing students’ prior knowledge in their L1 to support L2 acquisition.

Jiménez, García and Pearson (1995, 1996) corroborated the importance of transfer between languages when they found that proficient bilingual readers used what they know in both Spanish and English to comprehend text in either language, specifically using cognates and metacognitive strategies to facilitate their understanding. Other bilingual reading strategies include translating, transferring information between languages, and reflecting on text in either language (Jiménez et al., 1995, 1996). These skills appear to be evidence of a “Spanish-English bilingual schema for reading” (Jiménez, 1997, p. 227).

Cummins (2008) cited five specific types of transfer that might be possible in a given sociolinguistic context. The first is transfer of conceptual elements. Once concepts such as democracy or photosynthesis are learned in one language, they are known. The concepts do not change in a second language; only the vocabulary and the language structures required to communicate the concepts are different. The second type, transfer of metacognitive and metalinguistic strategies, includes comprehension strategies that can be used in multiple languages. The third is transfer of pragmatics, such as turn-taking in conversation or the use of gestures to supplement oral communication. Transfer of specific linguistic elements, including cognates and morphology, is fourth. Finally, the transfer of phonological awareness, or the knowledge that words are comprised of sounds, is also transferable from one language to another. This study primarily focuses on how teachers support the transfer of metacognitive and metalinguistic strategies, and the transfer of specific linguistic elements such as cognates and morphology.
Literature Review

Recent syntheses of research have supported the multilingual perspective, showing that EBs use all their linguistic resources to acquire literacy in both Spanish and English. One synthesis (Cisco & Padrón, 2012) concluded that proficient bilingual readers understand that each language can support comprehension in the other, but less proficient bilingual readers do not share this understanding. The authors claimed that proficient bilingual readers use transfer, translation and cognates to assist in reading comprehension. In another synthesis, Genesee et al. (2006) concluded that L1 literacy contributes to and L2 literacy development. Yet, details about DI teachers’ use of practices that support transfer is largely unknown.

Reciprocal Nature of Transfer

Literacy and language are reciprocal among learners’ languages. Vygotsky (1986) stated:

> The child can transfer to the new language the system of meanings he already possesses in his own. The reverse is also true—a foreign language facilitates mastering the higher forms of the native language. The child learns to see his language as one particular system among many, to view its phenomena under more general categories, and this leads to awareness of his linguistic operations. (pp. 195-196)

Vygotsky’s theory about the reciprocal nature of transfer is evidenced in two recent studies. Gebauer, Zaunbauer and Moller (2013) studied German-English dual language programs and found reciprocal transfer effects between L1 and L2 reading comprehension and fluency. They identified a dominance of L2 to L1 transfer in both reading comprehension and fluency and attributed it to the high proportion of L2 academic reading in dual language programs. Like Kieffer (2013) and Montecillo Leider, Proctor, Silverman and Harring (2013), Talebi (2013) found a focus on meaning to be central to multilingual reading and reported that reading strategies transfer from L1 to L2, L2 to L3 and L2 to L1.

Transfer in Dual Immersion Programs

With bilingualism and biliteracy as primary goals of dual immersion programs (Lindholm-Leary, 2001), it would be appropriate for educators to use students’ linguistic strengths as a bridge to their less-dominant language (Escamilla et al., 2014). However, in DI programs the languages are strictly separated to ensure that all students are using both languages (Lindholm-Leary, 2001). Cummins (2008) posited that the separation of languages in DI programs has a limited research basis and he argued for the purposeful use of students’ L1 where it can support L2 acquisition through cross-language transfer. He also warned that transfer of language and literacy may not happen without explicit instruction.

Gort (2008) and Reyes (2006) found that the use of both languages in a DI program facilitated EBs’ negotiation of meaning regarding language, culture and writing. Gort (2006) also found that EBs use their full linguistic repertoire when writing, apply appropriate skills cross-linguistically as they write, and may temporarily apply linguistic elements and writing conventions of one language to the other. Others (Hornberger & Link, 2012) have called for the use of translanguaging in DI classrooms. Recently, Escamilla et al. (2014) argued for teachers’
intentional and strategic use of transfer in DI programs, specifically for simultaneous bilinguals, through their Literacy Squared program. Literacy Squared provides a holistic biliteracy framework for teachers to support bilingual language and literacy development, as the bilingual is not two monolinguals in one (Grossjean, 1989).

Cognates, Morphology and Contrasting Languages

Vocabulary is a central component in EBs’ reading comprehension (Jiménez, 1994). In one study, 76% of vocabulary words in fourth-grade science units were found to be English–Spanish cognates (Bravo, Hiebert & Pearson, 2007), as were 68% of the words judged to be difficult in middlegrade texts (Carlo et al., 2004). In English, Latin-based words are often considered more sophisticated than other words, providing Spanish speakers with a theoretical advantage in learning content vocabulary, particularly in the sciences where Latin terms dominate. For example, “construct” and “construir” are cognates descended from the same Latin word “construere” (Lubliner & Hiebert, 2011). While a Spanish-speaking child would learn “construir” from a young age, an English-speaking child might use the word “build,” which could be considered less sophisticated than “construct.” Cognates have been found to support ELs’ English vocabulary and reading comprehension (Dressler, Carlo, Snow, August & White, 2011; Jiménez, García & Pearson, 1995; Ramírez, Chen & Pasquarella, 2013). For example, in a study of 90 Spanish-speaking English learners in grades four and seven, Ramírez et al. (2013) found both cognates and morphology to correlate to English reading comprehension.

However, students do not necessarily notice cognates without explicit instruction (August et al., 2005; Cummins, 2007; Goldenberg, 2008; Kelley & Kohnert, 2012; Nagy, 1995; Nagy, García, Durgunoglu, & Hancin-Bhatt, 1993), especially younger children (Kelley & Kohnert, 2012). Lubliner and Hiebert (2011) explained that despite the large number of cognates, many children are unable to use cognates to access vocabulary in their other language for one of two reasons: either their Spanish and English vocabularies do not overlap as much as one might expect (i.e., household vocabulary is known in Spanish and Science vocabulary is known in English), or the child is unable to access the Spanish word meaning based on the English orthography and/or phonology. The first consideration should be less relevant in dual language programs, as children are learning content vocabulary in both languages. To overcome the second challenge, Lubliner and Hiebert suggest instruction that helps students to recognize orthographic and phonological patterns across languages. Finally, cognates may share semantic, orthographic or phonological similarities. The degree of overlap on each of those three criteria varies, making some cognate pairs more or less difficult for children to notice (Lubliner & Hiebert, 2011).

Students’ ability to use morphology to determine word meanings was also shown to be a significant predictor of reading comprehension in English learners (Kieffer & Lesaux, 2008; Montecillo Leider et al., 2013; Schiff & Calif, 2007) as well as monolingual English students (Nagy, Berninger & Abbot, 2006; Nagy, Berninger, Abbott, Vaughan & Vermeulen, 2003). Montecillo Leider et al. (2013) found a correlation between morphological awareness and reading comprehension in 123 third through fifth grade Spanish-English bilingual students. They concluded, “We must move beyond the idea that reading comprehension can be simply understood through the examination of bilingual students’ ability on word reading tasks” (p. 1482). This is consistent with Kieffer’s (2013) recent study of 82 sixth grade ELs and 56 native English speakers who were struggling to read. While large proportions of all struggling students exhibited weak
morphological awareness skills, ELs were particularly likely to struggle to use morphology in their reading. Both studies found morphological awareness, or a focus on meaning, to be central to reading comprehension.

Schmidt’s (1990, 1994) noticing hypothesis states that calling attention to input supports language learning. One way to call attention to a second language feature is through contrastive analysis, or comparing it with corresponding L1 information. Lado (1957) proposed the contrastive analysis hypothesis, contending that differences between a learner’s two languages are a source of difficulty, or negative transfer, while similarities are positive. The term “negative transfer” can be misleading, as both similarities and differences between languages can help students learn an L2. Comparing and contrasting two languages allows the learner to build upon the knowledge of an L1 to facilitate learning an L2 and assimilate new knowledge (Markham, 1985). Contrastive analysis was widely used in the 1970s to predict potential difficulties associated with learning a second language in the hopes of circumventing them (Markham, 1985). Despite the popularity of contrastive analysis, there is a dearth of recent research on the instructional use of contrastive analysis in bilingual classrooms (exceptions include Laufer & Girasi, 2008 and Laufer-Dvorkin, 2006). Pointing out distinctions between two languages helps students to notice the differences, which may be infrequent, unobtrusive and/or communicatively redundant, enabling them to go unnoticed easily (Schmidt, 2001).

Methods

This comparative case study explored: (1) How two elementary DI teachers employed transfer practices to teach language, and (2) how the teachers’ understandings of transfer impacted their instruction in a DI setting.

Setting and Sample

East Golden Hills Elementary (EGHE), a Northern California school housing kindergarten through fifth grade, had a 90/10 Dual Immersion strand and an English only strand. A homogenous suburban school, 99 percent of EGHE students were students of color, 87 percent were Latino, 98 percent were low socioeconomic status (as measured by free and reduced lunch), 84 percent were classified as English language learners, and 87 percent of parents had no more than a high school degree.

The sampling criteria for this study included DI teachers who (1) had bilingual certification and at least five years of experience, (2) exhibited sophisticated levels of Spanish and English, and (3) successfully taught English to DI students as determined by state testing results in the prior two school years. The purposeful sample (Bogdan & Biklen, 2003) of two Spanish-English dual immersion teachers spanned second through fourth grade. Both teachers had a relatively even distribution of students at the beginning, early intermediate and intermediate stages of language learning. All students were native Spanish speakers except two native English speakers in Lauren’s class.

Lauren Sandía is Mexican-American and taught the fourth grade DI class at EGHE. At the time of the study she was 27 years old and had been teaching for five years. Although her father spoke Spanish, Lauren considered herself a second language learner in Spanish because an English-only rule was enforced at home. The difficult process of learning Spanish as a second language fueled her desire to teach Latino students to be bilingual and biliterate from a young age.
Claudia Ramos, age 44, taught a second and third grade combination DI class that year. Claudia is a Mexican national who moved to California through a program in search of bilingual teachers. She had been teaching 21 years, although this was her first year teaching a combination class. Claudia’s first language is Spanish. She is a language learner in English, German and French, and is proud of her language skills.

Data Collection and Analysis

Data collection included interviewing teachers, observing in classrooms, writing field notes and memos, and collecting bi-weekly student writing samples, pictures and other documents, over a three month period. I held formal, semi-structured interviews (Meriam, 2009) with participants approximately once per month and I audio-taped and transcribed all the interviews. I conducted hour-long classroom observations weekly, intentionally observing the teachers at different times of day and on different days of the week in order to get a holistic understanding of their instruction across various times, languages and subjects. Table One is an abbreviated version of the observation guide I used to focus my data collection.

Table 1

Abbreviated Observation Guide Used for Data Collection

| Classroom Observation | Teacher Interview Questions | Other |
|-----------------------|-----------------------------|-------|
| **RQ1**: How do teachers use the concept of transfer to facilitate students’ learning? | **RQ2**: How does the teachers’ understanding of transfer impact their instruction in a DI setting? | **RQ2**: How do teachers use the concept of transfer to facilitate students’ learning? |
| - How does the teacher build on what students already know in their L1? | - How do you develop academic language in English? Spanish? | - How do teachers’ actions represent their stated beliefs (from interviews)? |
| - How does the teacher react to verbal or written “errors” (grammar, etc.) that may be a misapplication of transfer? | - How do you develop students’ academic language? | - Is transfer addressed explicitly or implicitly? Do teachers use translanguaging? Or do they separate languages? |
| - What scaffolds are in place for language? | - Tell me about the relationship between oral language and literacy. | - Do transfer addressed explicitly or implicitly? Do teachers use translanguaging? Or do they separate languages? |
| - Do students translate for each other? Does the teacher translate? | | |
| **Do you use students’ L1 to develop their L2? If so, how?** | **How did you develop academic language in English? Spanish?** | **Do students use translanguaging practices when speaking to each other? To the teacher?** |
| **(If applicable) How do you help students to see that their knowledge of Spanish/English can help them learn the other language?** | **How do you develop students’ academic language?** | **If so, how does the teacher respond?** |
| **I noticed you did [X]. Tell me about that.** | **Tell me about the relationship between oral language and literacy.** | |
• What do you think about this DI program? DI programs in general? Why?

In this study transfer was operationalized as students’ use of linguistic resources from any language to support their understanding or use of either Spanish or English, the two languages of instruction (Gort, 2006, 2008; Reyes, 2006). To that end, I looked for ways in which teachers facilitated students’ use of their array of linguistic resources to support language or literacy learning. The goal of my observations was “thick, rich description” (Patton, 2002, p. 437). I used field notes and recording devices to help accurately capture data, increasing descriptive validity. I transcribed much of the classroom instruction based on the audio files within 24 hours of the observation. After developing a second observation guide from the data I had collected to that point, I realized I had reached a point of data saturation.

Following Charmaz (2006) and Merriam’s (2009) suggestions, I began data analysis during the data collection phase, rereading data and writing memos. Once the data collection phase ended, I read through all the data various times and made notes on different themes that were emerging. I conducted discourse analysis on the transcribed classroom observations to examine teachers’ language and classroom talk (Clarke, 2005). Using the concept of “data reduction,” (Miles & Huberman, 1994, p. 10) I created a Microsoft Word table for each of the instructional strategies. I then returned to coding, which was an iterative process.

To ensure theoretical validity I triangulated the data from interviews, observations, and student output (written and oral) and performed member checks with the participants throughout the study, asking for feedback on the concepts in development (Merriam, 2009; Patton, 2002). I also actively searched for confirming and disconfirming evidence. Finally, I closely monitored and carefully reported the data analysis procedures to ensure transparency (Merriam, 2009).

Classroom Profiles

Both Lauren and Claudia were extremely respectful of their students and always showed they cared, albeit in different ways. They both employed mostly whole-class instruction, as was mandated in the district.

Lauren’s classroom profile. Lauren’s fourth grade class had a 60%/40% split between Spanish and English respectively, with language arts and math in Spanish, and science, social studies and English language development (ELD) in English. Lauren taught most of her whole-group instruction at the back of the classroom, in front of chart paper and an easel, with her 28 fourth graders sitting on the floor in front of her. Lauren used the chart paper for visual support during her lessons, and then posted the charts on the walls for students to use as references. Students were often asked to turn and talk to strategically-assigned partners while on the carpet. Soft-spoken herself, Lauren demanded and received absolute silence from her students when she was talking, but gave them plenty of opportunities to interact with each other for language development purposes. Twenty-six of Lauren’s students were English learners, spread across the lower 3 levels according the California state English language assessment: beginning, early intermediate and intermediate. There were two native English speakers learning Spanish.
Lauren’s classroom was immaculately organized. The front wall of the room resembled the other teachers’ rooms, with the requirements (sound-spelling cards, standards, sentence stems, content and language objectives, concept-question board, and daily agenda) posted. The white board at the front was kept clean unless Lauren was using it, and there was a small classroom library in the front right corner. At the back of the classroom were a sink, closets, a kidney table where Lauren taught small groups after school, and Lauren’s desk. One side wall displayed teacher-made anchor charts and posters that were visual representations of science concepts, such as the rock cycle. Below them were three computers for student use. The opposite wall, mostly windows, had student work posted.

Claudia’s classroom profile. Claudia’s second-third grade combination class had an 80%/20% split between Spanish and English respectively, with language arts, math and Science in Spanish, and Social Studies and the mandated English Language Development minutes in English. Students in Claudia’s class were highly engaged and active learners. She did not require strict silence, but told students to work together and help each other. Student talk was generally on task and in the language of instruction. Claudia’s students seemed to know that she cared about them even when she was scolding them, which she did freely. During whole-class instruction Claudia’s students would sometimes raise their hands to participate and would sometimes jump in, but always respectfully and eagerly. There was a sense of respect and trust that allowed for rules to be relaxed and students to feel comfortable taking risks. All of Claudia’s students were English learners in the beginning, early intermediate or intermediate categories; there were no native English speakers in her class.

Claudia’s room was neat and well-organized. The walls were covered with standards, student work and teacher-made anchor charts. The back wall had cabinets that were decorated with students’ writing next to their photos. The writing was compiled with the most recent work on top, so students’ writing progress over time could be easily observed. Below the standards was a well-organized classroom library with books in both Spanish and English. At the front of the classroom were the mandated materials: the Open Court sound-spelling cards were placed directly over the whiteboard and the left side of the white board had a large Open Court Concept-Question board. The right side of the whiteboard contained the daily agenda, sentence stems, standards, language objectives and content objectives being addressed that day.

Findings

This study explored how Spanish-English Dual Immersion teachers taught for transfer between languages and what factors might influence their use of transfer practices. Transfer between English and Spanish was observed in three ways: (1) through morphology (e.g., the English suffix “tion” and the Spanish suffix “ción”), (2) through cognates (e.g., hospital/hospital), and (3) by contrasting the two languages (e.g., days of the week are capitalized in English but not in Spanish). Teachers’ beliefs about transfer influenced whether and how they taught for it.
Morphology

Lauren used cross-language morphology to teach students new vocabulary words. In one instance she taught the English word “supernatural” by accessing students’ knowledge of the morpheme “super” in superhéroe (superhero). She said, “You know the word superhéroe; how does that help you understand supernatural?” (Field notes, April 17, 2012). That same day she taught “ancestors” by accessing students’ knowledge of the morphemes –an and –ante in the Spanish words ancianos and antepasados, respectively (Field notes, April 17, 2012). Similarly, during a pre-reading activity, she helped students define “infrasonic” using “sonido” (sound):

Lauren: Does “sonic” look like a word we know in English or Spanish?
[No response from students.]
Lauren: What if I cover the “c”? What Spanish word starts with “soni”?
Students, chorally: Sonido! (Sound!, Field notes, May 15, 2012)

In this example Lauren prompted for the students to use morphology in either language. When the students did not respond, she provided more support, including identifying the language they should be thinking of (Spanish) and covering the final “c” in “sonic” to help them see the common word part.

Lauren also helped students make links between languages using affixes they have in common:
Lauren: What is the suffix, the ending, the suffix in ‘conversation’? The suffix is…
Students, chorally: The suffix is ‘tion.’
Lauren: ‘Tion.’ Thumbs up if we have spelling words with that suffix this week? Yes, we do. Almost every word in English that ends with ‘tion’ in Spanish ends with…
Students, chorally: ‘ción’
Lauren: So what’s conversation in Spanish?
Lauren & Students, chorally: Conversación (Conversation, Field notes, May 15, 2012).

In this example, the teacher used a suffix the languages share (spelled ‘tion’ in English, and ‘ción’ in Spanish) to develop students’ vocabulary in both languages and help students see the connection between the languages. In this way, new words had familiar parts students could use to help determine word meanings based on morphology.

Lauren taught morphology as one of a variety of strategies students could use to better comprehend texts. When Lauren realized “glimpse” was difficult for many students who were silently reading from their anthology, she interrupted their reading and asked:

Lauren: Where do we look first for clues?
Students, chorally: In the word.
Lauren: Sadly, in “glimpse” there aren’t any parts that can help us. Where else must we look for clues?
Students, chorally: In the sentence. (Field notes, May 10, 2012)

Lauren had explicitly taught students different ways to understand unknown words while reading and she reinforced the need to use multiple strategies.

Students in Lauren’s class exhibited evidence of learning to use morphology independently. When reading from the language arts anthology, one student explained that he had guessed that “finery” was related to the Spanish word “fino”. Lauren then made this strategy explicit, saying, “Because in Spanish ‘fino’ means very nice or fancy or elegant. So you can use Spanish … when you’re clarifying what words mean” (Field notes, May 10, 2012).

It is interesting to note that Claudia also used morphology, but within the Spanish language. She explained that visor (visor) may come from the word ver (see, Field notes, April 18, 2012) and batidora (mixer) came from the verb batir (mix, Field notes, March 6, 2012). She taught the students that the prefix “ex” in exhalar (exhale) means out (Field notes March 12, 2012), and she introduced a new vocabulary word, islote (islet), using a word students knew, isla (island, Field notes, May 10, 2012).

Claudia’s students were also able to independently use morphology to define words, but within Spanish rather than across languages. When asked to define contradicción (contradiction), a student suggested “Alguién que no habla bien?” (Someone who doesn’t speak well?, Field notes, April 13, 2012). The student knew contra (contra) meant against or not, and dicción (diction) meant speech. His guess, while incorrect, was an excellent use of Spanish morphology. I did not observe evidence of Claudia using morphology or cognates to explicitly support cross-linguistic transfer. Her reluctance to do so may have been a result of the strict separation of languages in DI, or the need to protect Spanish time from being “contaminated” by English (Interview May 3, 2012), or because she thought transfer between languages happens naturally (Interview, March 27, 2012).

**Cognates**

Lauren occasionally used cognates to help students understand new vocabulary, such as teaching photograph using fotografía (Field notes, March 28, 2012). When asked for an example of using cognates, Lauren said that a student asked her to define the English word “vary,” and she provided the Spanish cognate, variar (to vary, Interview, April 23, 2012). Lauren also taught her students to consider possible cognates when they came across an unknown word. She told them to ask themselves, “Do you know a word that looks like that? Or that sounds like that?” Lauren was aware that some cognates look the same or similar but may sound somewhat different in the other language, while other words sound similar in both language but may be spelled differently. Drawing students’ attention to phonology and orthography in both languages is a sophisticated way to help them use transfer.

Sometimes a cognate was unknown to students in both languages. When a student asked Lauren what “cruel” meant in English, Lauren pronounced the word in Spanish and asked if the student knew it. As word was new to the student in both languages, Lauren provided synonyms in both languages in order for the student to learn the word in both languages (Field notes, March 28, 2012). Interestingly, the English word “cruel” again tricked a small group of students during a guided reading lesson just a few weeks later. This time, however, after Lauren pronounced the word in Spanish, all the students recognized it and were able to use their understanding of cognates
to understand the word in English (Interview, April 23, 2012). Lauren then showed the students that the words were the same orthographically, but pronounced differently.

**Contrasting Languages**

When asked to describe how she supports students to use what they know in one language to support the other, Lauren described the idea of contrasting languages, saying, “In Spanish we do it this way but in English we do it this way” (Lauren, Interview, May 14, 2012). For example, when one of Lauren’s students wanted to put a question mark at the beginning of an English question, Lauren clarified, “only in Spanish, not in English, but good thinking” (Field notes, March 12, 2012). Similarly, Lauren confirmed that in English “I” always needs to be capitalized, but “yo,” in Spanish, does not, saying “that’s just how it is in English” (Field notes, April 10, 2012). She also contrasted the languages to remind students about the different punctuation required for interrogative sentences: rayas de diálogo (dialogue marks) in Spanish but quotation marks in English (Field notes, March 28, 2012). Claudia also contrasted the two languages to help students remember a key difference in writing, saying “Acuérdate, en español los días de semana no se escriben con mayúscula” (Remember, in Spanish you don’t write the days of the week with a capital letter, Field notes, April 18, 2012), and “No necesita mayúscula en español para los meses” (You don’t need a capital in Spanish for the months, Field notes, May 17, 2012).

In the above examples the teachers acknowledged what the students know and can do with one language and showed how the same concept differs slightly in the other language. Interestingly, there was evidence of transfer from both L1 to L2 (a student wanting to put a question mark at the beginning of an English sentence) and from L2 to L1 (a student wanting to capitalize “yo” because “I” is capitalized in English). More importantly, these examples are evidence that students were independently making their own links between languages, albeit sometimes trying to transfer a concept that was not applicable in the second language.

**Teachers’ Understanding of Transfer and Dual Immersion**

While no patterns emerged regarding the types of transfer strategies (cognates, morphology, language contrasts) used in different subjects (language arts, science etc.), one pattern was very clear: Teachers’ understanding of transfer influenced their pedagogy. Claudia thought that transfer happened naturally as students were learning two languages, therefore her morphology instruction tended to be within a single language rather than cross-linguistic. When asked to share her understanding of how students learned to use one language to support the other, Claudia explained, “Cuando hablan o cuando escriben y cuando leen en español más ... yo no les enseño a leer en inglés, ellos leen ya en inglés” (When they speak or when they write and when they read in Spanish more ... I don’t teach them to read in English, they already read in English, Interview, March 27, 2012). She also commented, “Ya ellos pueden hacer la transferencia,” (Already they can make the transfer).

Believing that transfer would come naturally, Claudia tended not to explicitly teach for transfer, and there was little evidence of it in her classroom. It was, however, something that she thought about in her role as a DI teacher. She spoke about pushing students to use more sophisticated vocabulary and increasingly complex phrases because they will need to do so in English, saying, “Hay que forzarlos a que usen el vocabulario en español porque a medida que
Lauren was less confident that students would independently transfer concepts from one language to the other without explicit instruction. When asked about the separation of languages in DI programs, she stated:

I think sometimes we assume that [transfer is] just going to happen, or that they’re going to see that connection, but sometimes they don’t … I’m still learning about how much I have to make explicit. You may think that they saw a cognate, but they might not have … I mean, I’m looking at compare and comparar (compare). They sound different. And what I find with going from Spanish to English, Spanish is so phonetic that my students rely a lot on the sounds of the words and not so much on the visual in comparing it to English. And so, comparar (compare) doesn’t really sound like compare, so some kids might totally not see that connection. So compare and contrast, in Spanish that’s comparar y contrastar (compare and contrast), sometimes that’s all you need, that tiny link … It has to be made explicit, and I think then that helps them to become more linguistically aware.” (Interview, March 26, 2012)

Lauren’s instruction included contrasting the languages to show important differences, as well as teaching students how to use cognates and morphology to use one language to support the other. Since it was important to her that students learned to use transfer independently, she reminded them during English silent reading time, “So you can use your Spanish when clarifying what words mean” (Field notes, May 10, 2012).

Lauren built on what students already knew in Spanish to help them learn English vocabulary and morphology, saying:

So when there are roots and suffixes, which are already an academic standard in English, helping students connect that to what they know about Spanish, I think that’s liberating for them. Because these are really hard words. But then they realize, ‘I actually know half of these words already!’” (Lauren, Interview, May 14, 2012)

She also expressed that when students did not use what they knew in one language to help themselves with the other, then everything was brand new and had to be learned separately, “and that’s too much of a cognitive load,” she said, “you’re starting off from square one again” (Lauren, Interview, March 26, 2012).

Lauren also realized that the 90/10 DI program, as she understood it, inhibited the use of transfer practices. When asked about examples of students’ use of cognates, she spoke about her surprise when a small group of her students struggled to read “cruel” in English despite knowing its Spanish cognate, “cruel” (Interview, April 23, 2012). Noting that the teachers at her school purposefully “train” the students to keep the languages separate, she said, “I think that partly, maybe that’s one disadvantage to the way we divide the languages so strictly” (Lauren, Interview, April 23, 2012). She thought that the strict separation of languages during the school day
influenced the students to think about the two languages as entirely separate, and therefore made them less likely to use what they knew in one language to support acquisition of the other.

In contrast, Claudia wanted to ensure that Spanish time was protected and not encroached upon by English, the majority language. When asked about her goals for the strict separation of languages, her response was, “Cuidando el español y evitando que se contamine con el inglés” (Guarding Spanish and avoiding its contamination with English, Interview May 3, 2012). This concern is founded in some research on DI programs that found minority languages to be encroached upon by majority languages (Ballinger & Lyster, 2011; Potowski, 2004, 2007).

Discussion and Conclusion

Despite the strict separation of languages required in a DI program, some teachers employ transfer practices while avoiding language encroachment. This study adds to the evidentiary base of the multilingual perspective, as teachers were fostering the use of cognates, morphology and language contrasts to help students build on what they knew in one language to support the other language. Furthermore, it deepens our understanding of the multilingual perspective by exploring some ways teachers capitalize on bilingual students’ linguistic strengths.

Instructional Implications

Reconsidering the separation of languages in Dual Immersion. Without exception, Lauren and Claudia did not mix Spanish and English, as a 90/10 DI model dictates (Lindholm-Leary, 2001), corroborating Takahashi-Breines’s (2002) study in which the DI teacher kept the languages “strictly separate,” “never used translation,” and “insisted that students speak the designated language” (p. 226). The strict separation of languages observed in this study limited “leakage” (Potowski, 2004, p. 79) of the dominant language into Spanish time. Due to the social, political and economic dominance of English over Spanish in the U.S., it is imperative that teachers demonstrate respect for both languages and follow the time requirements in each language to limit language inequity.

This study also corroborates Cummins’ (2008) and Koki’s (2010) claim that the strict separation of languages in a DI program may hinder a teacher’s use of transfer. Cummins (2008) believed that monolingual instructional approaches are at fault as they consider the student’s L1 as a hindrance, rather than supporting L2 acquisition. A number of researchers recommend transfer practices. For example, Lucido, Ramirez Boatright, Attal, Gonzalez and Thompson (2009) advised the instructional use of cognates, as well as morphology and cognates together, to help students understand the deeper relationship between words and languages, to identify patterns among languages, and to use those patterns to better understand and produce academic language in both languages. Montelongo, Hernández and Herter (2011) support cognate instruction and students translating their own L1 writing to help them construct knowledge about aspects of their L1 that transfer to L2. Similarly, Danzak (2011) and Escamilla et al. (2014) recommended teachers employ metalinguistic strategies to help students transfer their knowledge from one language to the other.

A focus on meaning. The teachers’ use of cognates and morphology represented a meaning-based orientation to language and literacy learning. Meaning-based instructional
practices, such as how to use cognates and morphemes to comprehend while reading, may support students’ reading comprehension (Cisco & Padrón, 2012; Cummins, 2008; Goldenberg, 2008; Lubliner & Hiebert, 2011; Lucido et al., 2009; Montelongo et al., 2011). While cognates and morphemes are often discussed separately in the literature, this distinction is somewhat misleading as cognates often share a root word or other morpheme. When students read or listen with knowledge of morphology, the meaning of the smallest units of language, and cognates, words that share a common linguistic derivation, they are focused on meaning. Other literacy skills, such as letter identification, decoding and knowledge of orthographic patterns are also likely used by students while reading. Such skills are often used as proxy measures of reading skills in bilingual students (e.g., Comeau, Cormier, Grandmaison & Lacroix, 1999; Durgunoglu, Nagy & Hancin-Bhatt, 1993; Gholamain & Geva, 1999; Verhoeven, 1994), but, if meaning is minimized, word calling may occur instead of text comprehension (Nathan & Stanovich, 1991). In fact, meaning-based skills may be a more accurate way to assess students’ ability to gain meaning from text (Kieffer, 2013; Montecillo Leider et al., 2013).

**Contrasting languages.** The two teachers in this study used differences between languages to help bilingual students acquire language and literacy in both Spanish and English. In addition, this study evidenced contrastive analysis from the L1 to the L2 as well as from the L2 to the L1, as teachers built on students’ strengths in both languages to support learning. Moreover, contrastive analysis was generally used once the teacher had observed a confusion stemming from the differences in the languages. The teachers used observation as formative assessment and employed contrastive analysis to correct mistakes at point of error to prevent the mistake from being habituated. This is a critical difference in implementation of contrastive analysis that supports its use in DI classrooms. In the past contrastive analysis was critiqued based on its goal of predicting possible difficulties second language learners might have given the wide variance in learners and their background knowledge (Markham, 1985; Wardhaugh, 1970). Contrastive analysis between the L1 and the L2 should not necessarily be the primary means of instruction, as it could take away from time in the target language (Markham, 1985) or it could be too focused on items rather than meaningful communication (Laufer & Girsai, 2008). However, carefully planned comparisons would increase the level of student attention on a specific item and support an improved understanding of the L2 (Markham, 1985).

**Implications for Teacher Educators**

If transfer is to be utilized well in DI programs, pre-service bilingual teachers must be taught how, when and why to teach for it. Santos, Darling-Hammond and Cheuk (2012) stated, “Pre-service teachers should learn about approaches to language learning that can build bridges between students’ native language knowledge and their evolving acquisition of a new language in an academic context” (p. 6). If, like Claudia, teachers believe transfer between languages will happen automatically, they will be less likely to explicitly employ transfer practices in their classrooms. In contrast, if they are taught to strategically teach for transfer, it could become part of their normal instruction.
Implications for Future Research

This study provides examples of two teachers’ practices and beliefs related to language transfer and was never intended to be generalized to a larger population. Future research could explore if and how larger numbers of DI teachers employ transfer strategies and analyze the resulting student outcomes. Additionally, future research could determine the types of transfer strategies that might be most useful in different subject areas. For example, due to the abundance of cognates and Latin-based word in science (Bravo, Hiebert & Pearson, 2007), one hypothesis would be that cognates and morphology would be particularly useful in that content area. Since teachers’ beliefs about language and transfer significantly impacted their instruction, additional research could focus on how to help teachers understand the benefits of empowering students to use what they know in one language to support the other, and developing DI models that intentionally teach for transfer, such as Escamilla et al.’s (2014) Literacy Squared program.

Conclusion

The use of cognates, morphology and contrastive analysis in DI programs, in limited amounts, could support acquisition of both languages, as all three practices build on students’ linguistic strengths. In addition, these three practices lead to language-supportive, “intentional, explicit conversations about language,” (Briceño, 2014, p. 86) as teachers and students engage in learning conversations around language. Incorporating cognates, morphology and contrastive analysis would require a different way of thinking about the separation of languages in DI programs: Teachers would need to be provided with the knowledge to make strategic decisions about when, why and how, to use students’ knowledge of one language to support the other in a generative, meaning-based manner.
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