# "FLUENT DYSFLUENCY" AS CONGRUENT LEXICALIZATION: A SPECIAL CASE OF RADICAL CODE-MIXING 

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#### Abstract

Code-switching among bilinguals has been typologically classified into three categories e.g. by Muysken (2000): alternation, insertion, and congruent lexicalization. Congruent lexicalization as usually defined not only requires that the languages in contact be structurally congruent, but also presupposes a high level of bilingual competence, as well relatively equal prestige and no tradition of overt language separation. The present study presents data from several communities in which Spanish is in contact with languages increasingly less cognate: Portuguese, Italian, and English, respectively. The data are drawn from "fluently dysfluent" speakers, meaning that they use their $\mathrm{L}_{2}$ frequently and speak it without hesitation, but with much involuntary intrusion of their $\mathrm{L}_{\mathrm{L}}$; these dysfluent bilinguals rely on their interlocutors' passive competence in the speakers' $L_{1}$, and in so doing exhibit code-switching which fits the typological pattern of congruent lexicalization. A componential analysis of several dysfluent bilingual communities results in the suggestion that the definition of congruent lexicalization be expanded to include the special case of fluently dysfluent bilingualism, a situation that arises in several language contact environments.


## 1. Introduction

It is the purpose of the present study to present some preliminary data on a type of language mixing that has heretofore not been included in most typologies of bilingual contact phenomenon. At stake is the fluid interleaving of two (usually cognate) languages under conditions of imperfect acquisition of the second language combined with an ongoing need to communicate with native speakers of the second language. For lack of a technically more precise term, this behavior will be termed "fluent dysfluency"; this refers to rapid and unhesitating approximations to the speaker's second language that are at the same time riddled with involuntary incursions of the speaker's first language, in a fashion that challenges existing typologies of bilingual language mixing. It will be argued that these examples are consistent with the structural components of Muysken's (2000) definition of congruent lexicalization, despite differences between Muysken's proposed extralinguistic criteria and those found in the communities under study. Furthermore, it will be
asserted that these cases of code-mixing as unconstrained bilingual interference may actually provide as good prototype for congruent lexicalization-provided that the relevant pragmatic conditions are satisfied-as the relatively tame examples of code-switching among fluent bilinguals studied, e.g. by Muysken (2000) and Deuchar, Muysken \& Wang (2007). In order to illustrate the scope of fluent dysfluency, data will be presented from three bilingual contact configurations, representing increasingly less cognate languages (in terms of genealogical relationship, lexical bivalency, and morphosyntactic congruence): Spanish-Portuguese, Spanish-Italian, and SpanishEnglish. Attention will be focused on instances of involuntary code-switching during attempts to speak entirely in the weaker language. The dysfluent bilingualism results from incomplete secondlanguage acquisition in two of the cases, and from language attrition in the third. The data will be examined in the light of accepted typologies of code-switching, with special reference to congruent lexicalization. Since the data represent a diverse set of speech communities, acquisitional profiles, and sociolinguistic matrices, the results of this investigation should be regarded as an experiment in typological expansion, rather than a fully self-contained study.

The line of argumentation will proceed as follows. Data will be presented from several communities located on the Brazilian border, inside Spanish-speaking countries. Within these communities, Portuguese (and in one instance, Spanish) is spoken as a second language with varying degrees of proficiency, but with complete fluency (e.g. no groping for words, hesitations, self-corrections, etc.). It will be claimed that this "fluent dysfluency" is possible due to the fact that both Spanish and Portuguese are understood in these communities, and that the sociolinguistic circumstances facilitate the uncritical and un-criticized interweaving of languages. Supporting data from mixing between two less cognate languages (Spanish and Italian), and from a community in which two non-cognate languages (Spanish and English) are intertwined by speakers addressing interlocutors known to have proficiency in both languages will further bolster the case for community linguistic awareness as a critical factor in forming mixed languages. A componential analysis of language mixing in each of the corpora reveals that congruent lexicalization is the predominant pattern in each case, despite differing sociohistorical circumstances. These considerations will lead to a refined proposal on the scope and range of congruent lexicalization as a language-mixing phenomenon, which under appropriate circumstances can be extended to embrace some types of non-fluent bilingualism.

## 2. Congruent lexicalization within the framework of code-switching

Muysken (2000) divides language-switching phenomena into three partially overlapping categories: alternation, insertion, and congruent lexicalization. Insertion presupposes a base or matrix language (e.g. in the sense of Myers-Scotton (1992, 1993, 2002), in which appropriately configured lexical items from the other language are introduced. Thus the phrase structure, including the order and type of constituents, is determined by the base language. In alternation each segment involves a language with its own constituent structure; switched elements generally are therefore constituent-sized (phrases, clauses, etc.). In congruent lexicalization, "the grammatical structure is shared by languages A and B, and words from both languages $a$ and $b$ are inserted more or less randomly" (Muysken, 2000: 8). Congruent lexicalization requires that the languages in contact be structurally congruent to a very high degree. To the extent that they are lexically similar (especially when they share homophones), congruent lexicalization is facilitated even more. Deuchar, Muysken \& Wang (2007) examine corpora from typologically diverse pairs of languages to suggest that in each code-switching environment, one of the three types predominates, although all three may be present. They summarize the linguistic and extralinguistic factors that favor each switch type as shown in Table 1.

| Codeswitching type | Linguistic factors favoring this type | Extralinguistic factors favoring this type |
| :---: | :---: | :---: |
| Insertion | Typological distance | Colonial settings; recent migrant communities; asymmetry in speaker's proficiency in two languages |
| Alternation | Typological distance | Stable bilingual communities; tradition of language separation |
| Congruent lexicalization | Typologically similar languages | Two languages have roughly equal prestige; no tradition of overt language separation |

Table 1: Codeswitching types, from Deuchar, Muysken \& Wang (2007: 309)

In the studies summarized in Muysken (2000: chap. 5), a standard language is mixed with a regional or social dialect in a continuously variable fashion. Such cases involve languages that are both lexically and structurally similar, presenting the most favorable environment for congruent lexicalization. However in most of the cases described by Muysken, and in similar cases involving the dichotomy standard language-regional/social dialect, it is not the case that both languages have equal prestige, even when there has been a tradition of overt language separation. When a standardized language covaries with a regional or social dialect, it may not be clear to speakers in a given moment precisely which elements belong to each category. In the case of closely related languages with independent histories linked to separate nations and/or ethnic groups, awareness of the provenance of individual items in code-switched discourse is generally higher, although nearhomophones may result in the blurring of category boundaries.

Muysken's three-way typology of language switching does not directly address code-switching during second language acquisition. Implicit in Table 1 is the correlation between insertion and "asymmetry in speaker's proficiency in two languages." However, fluent code-switching is not as frequently mentioned in the context of the speech of language learners, nor the speech of bilinguals undergoing attrition of the weaker language. Eliasson (1995) proposes the typology shown in Table 2, which integrates code-switching among fluent bilinguals and interference.

|  | Interference | Code-switching |
| :--- | :--- | :--- |
| Overall intent <br> Separation of <br> languages in speech <br> chain <br> Relation to primary <br> language of discourse <br> Performance mode | unintentional <br> horizontal or vertical | often intentional <br> usually vertical |
| Most typically <br> characterizes | production and <br> perception <br> second language learners | proficient bilinguals |
| Likely interlocutor | monolingual in | production |

Table 2: Code-switching vs. interference, adopted from Eliasson (1995), with an added

## category

A category has been added to this typology: "likely interlocutor." Interference typifies the speech of individuals attempting without complete success to communicate with non-bilinguals in the latter's language. True code-switching on the other hand is performed with bilingual interlocutors. This typology essentially defines interference in phenomenological terms, as regards the speaker's intention, the linguistic profile of the interlocutor, and the pragmatic relationship between the two languages. Code-switching, often involuntary or at least unwanted, is also associated with first-language attrition. Hamers \& Blanc (2000: 77) caution against confusing codemixing and attrition: "code-mixing in $\mathrm{L}_{1}$ is triggered by the social context, whereas in the case of attrition deterioration occurs even in an $L_{1}$ monolingual context. Code-mixing might however be a precursor of attrition."

The typologies offered by Deuchar, Muysken \& Wang (2007) and Eliasson (1995) distinguishimplicitly or explicitly-between code-switching among (fluent bilinguals) and interference phenomena (among nonfluent language learners). There are, however, sociolinguistic configurations that result in superficial manifestations that strongly resemble code-switching, but which are actually the product of first-language intrusions from speakers who frequently attempt to speak a second language without ever attaining fluency in that language. Such situations occur, for example, when the two languages are cognate enough so that native speakers of the second language can readily process intrusions from their interlocutors' first language. A typical exampleto be explored further in the following sections-would be contact between Spanish and Portuguese, which share a very large number of cognates, and between which mutual intelligibility is normally quite high. A less frequent situation occurs when speakers of the second language also possess competence in the (non-cognate) language spoken natively by their interlocutors, while the
latter feel compelled to attempt communication in the second language, despite lack of fluency. Such a situation might arise, for example, in a government office in the United States where a Spanish-dominant bilingual struggles to speak only English to an employee, for self-perceived reasons of propriety or perhaps for fear of being denounced as an illegal immigrant, even when the employee evidences knowledge of Spanish. In both instances, shared knowledge of the two languages in contact provide a pragmatic underpinning that permits-although certainly does not require-high-density involuntary language mixing by speakers with limited bilingual competence. The following sections will present data from several such contact environments.

## 3. Semifluent Spanish-Portuguese alternation along the Brazilian border

Spanish and Portuguese-spoken in separate nations and enjoying long autonomous literary and cultural traditions-are invariably classified as distinct languages, although many of the differences are quite systematic and a high degree of mutual intelligibility exists between most varieties. When Spanish and Portuguese come together in border regions, as well as in less systematic encounters between Spanish and Portuguese speakers seeking mutual accommodation, contact phenomena occur that go beyond the usual borrowing and language-switching found in most bilingual communities. Closely related varieties such as the Spanish-Portuguese dyad do not fit easily into models designed for bilingual speech communities in which the languages are more distinct from one another. Nor does the continuum model used to depict the transition between "low" and "high" forms of a dialect (e.g. in a diglossic environment) account for the Spanish-Portuguese contact data. The study of bilingual encounters between closely related sibling languages such as Spanish and Portuguese requires refining the typology of language contact environments as well as specific constraints on language mixing. Spanish-Portuguese switching thus appears prima facie to constitute a prime candidate for the observation of congruent lexicalization. At the same time, the great structural, lexical, and semantic similarity between Spanish and Portuguese presents a considerable challenge to speakers of one language who attempt to learn the other, since relevant differences are often subtle, unpredictable, and inconsistent. The terms portuñol (in Spanish) and portunhol (in Portuguese) have arisen to describe situations in which speakers of one of the two highly cognate languages attempt to speak the other language, but are unable to suppress interference from the native language.

In some officially Spanish-speaking countries, the regions bordering on Brazil are predominantly populated by indigenous groups who use little Spanish; this includes much of the border with Venezuela, Colombia, and Peru. At other points twin cities straddling the international border provide scenarios in which Spanish and Portuguese come into contact on a daily basis. Nearly always the overwhelming economic and demographic force of Brazil results in only Portuguese being used inside the Brazilian border, while a number of Spanish-Portuguese combinations occur in the neighboring nominally Spanish-speaking communities. The only region in which a hybrid contact variety has become nativized is in northern Uruguay, as the result of special sociohistorical circumstances. ${ }^{1}$ In order to assess spontaneous Spanish-Portuguese contacts rather than a stable hybrid variety, attention must be directed at other Spanish-speaking regions along the Brazilian border. Some of the most promising scenarios are found in northern Bolivia, northeastern Argentina, and eastern Paraguay, where Spanish-Portuguese contacts are quite different from those occurring in Uruguay. Thumbnail sketches of each community are offered below. The locations are shown on the map in Figure 1.

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Figure 1. Map showing locations of Spanish-Portuguese and Spanish-Italian language contacts

### 3.1. Cobija, Bolivia

Cobija, in northwestern Bolivia, is located on the narrow and shallow Acre River which forms the border with the Brazilian state of the same name. ${ }^{2}$ Cobija (population of around 22,000 in the 2001 census) and its sister city Brasiléia (pop. 16,000 ) are linked by bridges which carry both vehicles and pedestrians. The border crossing is unrestricted; there are no tolls and no documentation need be presented on either side of the bridges. Cobija has a large duty-free shopping area near the main international bridge, and every day hundreds of Brazilians flock to downtown Cobija. Given the daily presence of Brazilians in Cobija, the fact that most children in Cobija prefer Brazilian television programs (and many Bolivian adults watch Brazilian soap operas), most cobijeños can speak at least some Portuguese, although most employ Spanish phonotactics and morphosyntax when attempting to speak Portuguese to visiting Brazilians. Cobija also has a resident Brazilian population, largely students at the Universidad Amazónica del Pando, the closest regional university for many Brazilians. These students are obliged to take an intensive Spanish course prior to undertaking university studies, and also interact with other Bolivians in various approximations to Spanish.

### 3.2. Guayarmerín, Bolivia

The other major Bolivian city on the Brazilian border is Guayaramerín. ${ }^{3}$ Guayaramerín (pop. 41,000 ) is separated from its Brazilian counterpart Guajará-Mirim (pop. 38,000 ) by the wide and often turbulent Mamoré river, a river so wide that from one bank the opposite city can barely be made out. The towns are serviced by a regular motor ferry service, a journey that takes around twenty minutes. The presence of a duty-free shopping zone in Guayaramerín results in the Bolivian city being filled with hundreds of Brazilian tourists every day, in the shopping area that stretches along the main avenue from the port terminal for some ten blocks. Relatively few Bolivians travel on a regular basis to the neighboring Brazilian city. All Bolivians engaged in commerce with Brazilian tourists in Guayaramerín speak some Portuguese, with the same second-language traits found in Cobija. Outside of the duty-free shopping area few Bolivians speak Portuguese, although most watch Brazilian television (soap operas and children's programs in particular) and have passive competence in Portuguese.

### 3.3. Pedro Juan Caballero, Paraguay

Paraguay has two substantial cities that border on Brazil as well as some smaller border communities. ${ }^{4}$ The most interesting Spanish-Portuguese contacts occur in Pedro Juan Caballero (pop. approx. 100,000 ), a northeastern city that shares an open land border with the Brazilian city of Ponta Porã (pop. 69,000$).{ }^{5}$ By crossing a street or a grassy area between traffic lanes one crosses the

[^1]border, with no border controls anywhere within the conjoined cities. Pedro Juan Caballero does not have a duty free zone, but there are many small markets and stores that sell imported items that attract numerous Brazilian shoppers, as well as an enormous shopping mall situated right on the border. Portuguese is heard nearly everywhere in downtown Pedro Juan, and local residents do use some Portuguese words when speaking amongst themselves, although such conversations are held in a combination of Spanish and Guaraní.

### 3.4. Paso de los Libres, Argentina

Northeastern Argentina, in the provinces of Corrientes and Misiones, has several towns that border on Brazil and share cultural and commercial ties with sister cities on the Brazilian side of the border. Most of the border is formed by the wide Uruguay river, and the larger border crossings are the scene of international bridges. A prototypical case is the city of Paso de los Libres, Argentina (pop. 45,000 ), in Corrientes province, which is joined by a free bridge to the Brazilian city of Uruguaiana (pop. 126,000). ${ }^{6}$ Although the international bridge is toll-free, Argentina enforces entry and exit document controls and customs inspection; there are no formalities involved in entering or leaving Brazil via the bridge. Most residents of Paso de los Libres have visited Uruguaiana, but those not involved in international commerce cross the river only occasionally; Brazilians, on the other hand, enter "Libres" in large numbers every day due to the favorable currency exchange rate, even though Uruguaiana has proportionately larger shopping areas. As in other regions bordering on Brazil, most inhabitants of Paso de los Libres watch Brazilian television and have considerable passive competence in Portuguese, although only those involved in commerce with Brazilians actually attempt to speak Portuguese.

### 3.5. Bernardo de Irigoyen, Argentina

A more elaborate set of language contact phenomena can be observed in far northeastern Argentina, in the town of Bernardo de Irigoyen, in Misiones province. ${ }^{7}$ This community of some 11,000 inhabitants shares a land border with two contiguous Brazilian towns, Dionísio Cerqueira, Santa Catarina (pop. 15,000), and Barracão, Paraná (pop. 5,200). Along the main street of Irigoyen that leads to neighboring Dionísio Cerqueira, there is an Argentine customs post, through which local residents pass freely on foot and in vehicles. The remainder of the border with Dionísio Cerqueira is marked by an overgrown ravine. In a peripheral neighborhood of Irigoyen it is possible to enter Barracão by simply crossing a street, with no border controls. The sociolinguistic situation of Irigoyen is unlike that of Paso de los Libres in that in several neighborhoods Portuguese is spoken as a native language more frequently than Spanish. Adult residents of Irigoyen punctuate their conversations with Portuguese words, and as in other border towns, watch Brazilian television and routinely cross into Brazil for informal visits. Natives of Irigoyen who are raised in Spanishspeaking households speak less Portuguese, but almost all residents of this compact town can spontaneously speak Portuguese when addressing a Brazilian. Some of the stores in the two-block long "downtown" have Brazilian employees, so Portuguese is heard on a daily basis within Irigoyen.

The sociolinguistic situations are quite distinct in Cobija, Guayaramerín, Pedro Juan Caballero, Paso de los Libres, and Bernardo de Irigoyen, but in all of these communities there is almost no Spanish-Portuguese code-switching, and when residents attempt to speak Portuguese they exhibit

[^2]variable and idiosyncratic patterns of first language interference in accordance with their individual level of competence in Portuguese.

### 3.6. Data collection along the Brazilian border

In order to assess the linguistic situation in the aforementioned nominally Spanish-speaking border communities, field work was conducted in Cobija, Bolivia in 2005, in Guayamerín, Bolivia in 2007, and in Pedro Juan Caballero, Paraguay, and Bernardo de Irigoyen and Paso de los Libres, Argentina in 2008. In each community, contact was made with local teachers and public servants widely known and respected. After ascertaining the most propitious environments for observing Spanish-Portuguese language contact (e.g. in stores and markets, in schools, in parks, depending on the particular location), interviews were conducted with speakers deemed by the local contact persons to be representative of the speech community. In particular, individuals able to sustain a conversation entirely in Portuguese were sought. ${ }^{8}$ In each instance the interviews, all recorded digitally, were conducted by me with the participation of local residents known to and trusted by the speaker and capable of speaking both Spanish and Portuguese. It was explained that the object of study was language contact and the extent to which the Portuguese language was known and used just outside the Brazilian border. The interviews began in Spanish, and included general questions about community language use and community life, as well as each speaker's own language background and circumstances in which Spanish or Portuguese were used on a regular basis. The interviewer(s) then switched to Portuguese, and participants were asked to speak entirely in Portuguese. The latter responses, namely speech explicitly requested to be only in Portuguese, were the subject of the language-mixing analysis. ${ }^{9}$ From a heuristic standpoint, Portuguese is assumed to be the matrix language in these responses. In reality, in none of the interviews conducted putatively in Portuguese did the speakers revert to Spanish for more than a few words or short sentence fragments at a time. There were no instances of free-standing sentences produced entirely in Spanish during the Portuguese-only portion of the interviews.

In Cobija, Bolivia, the only border community that includes resident Brazilians who routinely use Spanish, interviews were also conducted with Brazilian students at the Universidad Amazónica de Pando. In this case, only Spanish was used throughout the interviews, and participants were asked to speak only in Spanish. As with the Portuguese-only interviews, none of the Brazilians produced entire sentences in Portuguese when asked to speak only in Spanish; Spanish is therefore assumed to be the matrix language in these responses.

Since Spanish and Portuguese are highly cognate, in terms of both lexicon and morphosyntax, there is the possibility for ambiguous identification of a given word as belonging to either Spanish or Portuguese. In the border communities under study, native Spanish speakers typically realize cognate items with Spanish phonotactics, and Brazilians in Cobija employ Portuguese phonotactics

[^3]when pronouncing cognate words in Spanish. Therefore in coding the data, lexically cognate items that might ordinarily differ only in phonotactic detail were regarded as belonging to both languages. ${ }^{10}$ Unambiguous lexical items were coded as either Spanish or Portuguese. For purposes of a componential analysis, every insertion of Spanish material within clauses with Portuguese as a matrix language or insertion of Portuguese material within clauses with Spanish as a matrix language was regarded as a language switch. In a few instances, idiomatic expressions peculiar to one language were produced with a combination of Spanish and Portuguese lexical items. These "mixed collocations" as defined by Deuchar, Muysken \& Wang (2007) were analyzed as codeswitches, irrespective of the matrix language. The data also contain some hybrid or innovative forms, often combining the lexical root from one language and the morphosyntax of the other. One example would be the word documentasón 'documentation,' recorded in Pedro Juan Caballero, Paraguay; the word combines Spanish documentación and Portuguese documentação. From the same community comes the example las regla 'the rules,' combining the Spanish definite article las, the Spanish noun regla, and the vernacular Brazilian Portuguese trait of marking plural /-s/ only on the determiner and not on the head noun. In Bernardo de Irigoyen the expression disenho animado 'cartoon' was pronounced as [diseno] with intervocalic [s], as in Spanish, rather than with [z], as in Portuguese, although the Spanish expression for 'cartoon' is dibujo [dißuxo] animado. A Brazilian speaker in Cobija, Bolivia, attempting to speak Spanish pronounced japonés 'Japanese’ as [ 3 aponeh] with the initial groove fricative [3] from Portuguese rather than the initial [x] of Spanish, but with aspiration of the final /s/ as in Cobija Spanish. An interesting morphosyntactic example would be the sentence nosotro taba ahí 'we were there' produced by a speaker in Bernardo de Irigoyen, Argentina, when attempting to speak Portuguese. Nosotro 'we' is from Spanish (in the local vernacular the final $/ \mathrm{s} /$ is not pronounced), while the adverb ahí has an identical form in Spanish and Portuguese. The verb form, however, belongs to neither language. In Spanish, the imperfect form of the copula estar 'to be' would be estábamos (perhaps reduced to tábamos in rapid speech) with the bilabial fricative [ $\beta$ ] while in Portuguese in would be estávamos/távanos, with labiodental [v]. In the local vernacular Portuguese, subject-verb agreement is frequently suspended in the first-person and third-person plural forms, with the third-person singular emerging as quasiinvariant verb. Thus a vernacular Portuguese version of the sentence might be nós (es)tava aí with non-agreeing verb. This suspended agreement never occurs in Spanish, so that the verb taba [taßa] is a hybrid innovation.

## 4. Spanish-Italian contacts in Montevideo, Uruguay

Spanish and Portuguese share cognate structures to the point where massive mixing of the two languages does not always impede communication. Sharing fewer similarities-although with a considerable number of recognizable cognates-are Spanish and (modern standard) Italian. In Latin America, these languages came into contact massively in Argentina (Buenos Aires) and Uruguay (Montevideo) in the late $19^{\text {th }}$ and early $20^{\text {th }}$ centuries. In Montevideo, Uruguay, a second wave of Italian immigration occurred in the 1940's and 1950's. Some of these immigrants are still alive, and their Spanish-Italian interlanguage has been recorded, transcribed, and analyzed. ${ }^{11}$ While speaking
${ }^{10}$ The only exceptions were cases in which the lexically cognate item was clearly pronounced with the phonotactics of the non-native language; e.g. the complementizer que (realized as [ke] in Spanish) pronounced as [ki] in the L2 Portuguese of a Spanish speaker, or the preposition para 'for' truncated to [pra] as in vernacular Brazilian Portuguese, rather than to [pa], as normally occurs in vernacular Spanish.
${ }^{11}$ These analyses are presented in Barrios (1999, 2003), Barrios and Mazzolini (1999), Barrios et al. (1994), Ascencio (2003), and Orlando (2003). I am grateful to Dr. Graciela Barrios of the Universidad de la República, Montevideo, for graciously providing me with recordings of now-deceased Italian immigrants who had been recorded in the 1990's. In June 2008 I interviewed a few elderly Italian immigrants in
local Italian dialects within their own families, most Italian immigrants attempted to speak standard Italian with compatriots from other regions, and also used standard Italian-which is more similar to Spanish than most of the regional dialects-as a springboard for acquiring Spanish in Uruguay. Italians in Uruguay generally make every attempt to speak only Spanish with their non-Italian interlocutors, and introduce Italian elements either unwittingly or when Spanish lexical items are unavailable in their individual repertoires. The corpus collected by Barrios in Montevideo (1999), from which the following examples are extracted, bear directly on the study of dysfluent congruent lexicalization, especially for one reason. Dr. Barrios herself is a descendent of Italian immigrants and is fluent in Italian. Although her interviews were nominally conducted in Spanish, she made it clear to her participants from the outset that they could use Italian whenever they felt uncomfortable in Spanish. Many participants did in fact switch to Italian for extended periods during the interviews, as did Barrios. ${ }^{12}$ The fact that the interviewer not only spoke and understood Italian but also indicated a willingness to switch into Italian when necessary provided the appropriate pragmatic conditions which allowed not only conscious and deliberate language switching, but also numerous involuntary and possible unconscious incursions of Italian produced during attempts to speak exclusively in Spanish. These fragments probably contain a denser admixture of Italian elements than the speakers would have proffered to an interlocutor not fluent in Italian. The examples cannot be properly regarded as code-switching, since it was not the intention of the speakers to switch languages, nor is it clear that they were always aware of having done so. The examples of spontaneous Italo-Spanish speech in Montevideo exhibit the same fluent but unintended slippage between closely related languages as is found in Spanish-Portuguese contact zones, although the degree of cognate items is proportionally lower. They demonstrate that fluent bilingualism is by no means necessary as a prerequisite for catalyzing a mixed language, nor is an extremely high set of shared cognates, provided that both languages are known to and at least implicitly accepted by the participants in a conversation.

## 5. Vestigial Spanish in the United States: Sabine River/Los Adaes

The final language contact situation involves an instance of dysfluent mixing of two languages that are for all intents and purposes mutually unintelligible: Spanish and English. Spanish and English, while frequently entering into code-switching configurations, in such places as the United States and Gibraltar, are typologically distinct enough that there is little ambiguity as to which language is being used at any point in a switched utterance. In particular, Spanish-English switching does not usually involve switches in the middle of constituents of the "ragged mixing" sort. Spanish-English bilinguals, whether bilingual acquisition has been simultaneous or successive (at least until the critical period of adolescence) practice code-switching, as has been documented in more than three decades of research, with alternation being a frequent type of code-mixing. Speakers for whom Spanish or English is a true $\mathrm{L}_{2}$ rarely engage systematically in alternation; found instead is the sort of opportunistic groping for words that typifies imperfect acquisition and lexical impoverishment. Insertion is the most common strategy, although the need to insert lexical

[^4]items may at times trigger more lengthy alternations. There is another type of imbalanced bilingual competence, resulting from language erosion, particularly across the lifetime of individual speakers. Data collected among vestigial Spanish speakers in an isolated community in Louisiana (reported in Lipski, 1987, 1988, 1990; also Shoemaker, 1988), further illustrate the possibility for fluid mixed language in the absence of fluent bilingualism, provided that both languages are known to the speakers.

This speech community is found in northwest Louisiana (Sabine and Natchitoches Parishes), extending to a few areas on the other side of the Sabine River in east Texas (Nacogdoches County). The majority of the Spanish speakers in question are found in northwestern Louisiana, near the towns of Zwolle and Noble (Sabine Parish) and in the Spanish Lake community near Robeline (Nachitoches Parish), and in Texas, in the Moral community just to the west of Nacogdoches. The communities descend from Mexican soldiers resettled in this region in the 1730's, to fortify the boundary between Spanish and French territories in North America. The Spanish language has nearly died out along the Sabine River; the total number of individuals with significant active competence in Spanish was estimated in the late 1980's to be no greater than 50 on each side of the state border, with perhaps only half being truly fluent. A generation later these numbers are even smaller, with a larger number of the community's oldest residents having a passive competence in the traditional Spanish dialect, recognizing words and phrases, but unable to sustain a conversation (Pratt, 2004). These dialects have no lexical items which identify the ethnic Spanish-speaking group, although the term Adaeseño (a derivative of the traditional Adaesano) has been applied by Armistead \& Gregory (1986) to the Spanish Lake dialect, derived from the Spanish settlement of Los Adaes, which was located nearby. In my own research on this dialect I have used the term "Sabine River Spanish" to indicate the fact that the dialect extends to both sides of the Sabine River. The Louisiana locations are shown on the map in Figure 2.

Although essentially monolingual speakers of Spanish were found in the Sabine River communities well into the $20^{\text {th }}$ century and fluent Spanish speakers were common as late as the 1970's, by the late 1980's, when the field data to be reported below were collected, there were almost no totally fluent Spanish speakers in the Louisiana communities. Fewer than a dozen elderly individuals were able to sustain a reasonable conversation in some approximation to Spanish, albeit with considerable interference from English phonotactics, lexicon, and morphosyntax, together with much involuntary switching between English and Spanish. In the Louisiana communities of Spanish Lake, Ebarb, and Zwolle, competence in Spanish ranged from rudimentary semi-speakers to vestigial speakers who had not spoken Spanish for several decades, but who were capable of sustained conversations in a fluid and spontaneous mixture of Spanish and English. The latter combinations are not specimens of code-switching among fluent bilinguals, but rather spur of the moment strategies adopted by individuals attempting to reconstruct a coherent discourse from fading recollections of a language once spoken with greater proficiency. Their approximations to fully fluent Spanish (that is to say, those fragments actually produced in Spanish) are closer than the $\mathrm{L}_{2}$ Spanish usually produced by Anglophone learners, but the switching between languages is not typical of $L_{2}$ Spanish speaker, nor of the fluent bilingual who code-switches for stylistic effect. In the work reported in Lipski (1987, 1988) only data from those few speakers able to converse entirely in Spanish were included. The same fieldwork also resulted in several interviews with individuals whose attempts to speak Spanish consisted of a densely interwoven mixture of Spanish and English, impressionistically unlike anything I have ever heard from fluent Spanish-English bilinguals in any community. ${ }^{13}$ These interviews, originally rejected as useful specimens of Sabine

[^5]River Spanish, appear to constitute prima facie candidates for fluently dysfluent speech of the sort described for Spanish-Portuguese and Spanish-Italian mixing.

As in the case of Spanish-Portuguese hybrid speech in border areas of Bolivia, Paraguay, and Argentina, and the Italian-Spanish mixture in Montevideo, this Spanish-English mixing occurred during attempts to speak entirely in Spanish. The resulting configurations differ from documented instances of fluent Spanish-English code switching both in terms of the density of intrasentential switching and in some cases even the syntactic configuration of the switch points. All of the examples were produced in fully fluent discourse, with no hesitation, pauses, or obvious groping for words. Although the speakers in question had not spoken Spanish on a regular basis for many years, they clearly felt no inhibition about mixing in whatever English elements were necessary in order to produce complete sentences. Although I had specifically requested that they speak as much Spanish as they could (and I spoke to the participants only in Spanish during the recorded interviews), the fact that I was obviously bilingual, and that the community volunteer worker who had introduced me to the participants spoke almost no Spanish, contributed to the environment in which these speakers could move effortlessly between the two languages, even though their active competence in Spanish was often quite limited. Also contributing to this unusually spontaneous code-switching was the little formal education in English and no training in Spanish; the same speakers were equally uninhibited in speaking very non-standard dialects of English, which differed significantly from my own speech and from that of my guide.


Figure 2. Map showing the location of Sabine River Spanish speakers in Louisiana
there is comparatively little available bibliography on the specific types of code-switching found among transitional or "semi-speaker" bilinguals, except for general observations on the emblematic use of fragments in the weaker language as ethnic identity markers.

## 6. Dysfluent language mixing as code-switching

Before turning to an analysis of language switching exhibited in the speech communities previously described, a summary of participant selection criteria is useful. The individuals whose speech is under analysis are both dysfluent in their second language, and able to approximate their second language with no hesitation or backtracking. Since the data were collected as approximations to spontaneous speech, in a variety of circumstances, no formal measures of language proficiency were applied. The determination of speakers' abilities in their second or weaker language (Portuguese or Spanish) as well as their ability to speak entirely in that language was made on the basis of both self-reporting and external observation. Prior to collecting the language-mixing data, all speakers interviewed were asked to comment on their abilities in their weaker or second language, as well as the circumstances in which they normally used this language. I corroborated these assertions with my own observations, as well as with observations by other community members. Given the sociolinguistic circumstances in each community, fully balanced bilinguals were virtually non-existent. Among the Spanish-Portuguese contacts, only a few individuals in Cobija, Bolivia, and one individual in Guayamerín, Bolivia, all married to Brazilians, were able to converse in fully fluent Portuguese, and were excluded as interview subjects. No Brazilians in Cobija possessed more than the basic proficiency in Spanish required to attend the Bolivian university, while the Italian immigrants in Montevideo, Uruguay selected by Graciela Barrios were all late learners of Spanish who spoke that language with considerable difficulty. Among the vestigial Spanish speakers in northwestern Louisiana, none was able to speak Spanish without some grammatical and lexical errors. Among all the speakers interviewed by me, as well as the Italian immigrants interviewed by Barrios, none was able to fully suppress their first language when attempting to speak entirely in their second (or in the case of the Sabine River speakers, weaker) language. Only those interviews were chosen for analysis in which the speakers' attempts at speaking entirely in the target language were not accompanied by hesitation, self-correction, metalinguistic commentary, groping for words, or other signs of linguistic insecurity.

The examples under study represent dysfluent bilinguals attempting to speak entirely in a second language (Portuguese in Argentina, Bolivia, and Paraguay; Spanish for Brazilians in Cobija, Bolivia; Italian in Montevideo, Uruguay; Spanish in northwestern Louisiana) while implicitly relying on their interlocutors' knowledge of the speakers' first language (Spanish, Portuguese, Italian, and English, respectively). Dysfluent language mixing as elicited in the speech communities described above does not represent conscious or voluntary code-switching, and is not produced under conditions of fluent bilingualism. Regardless of speakers' intentions, however, unequivocal language switching occurs in the corpus, and can in principle be analyzed with the same diagnostic criteria as are employed in the study of voluntary code-switching among fluent bilinguals. The remainder of this study is based on the analysis of apparently involuntary language switching as exemplars of code-switching, albeit not of the sort most frequently examined under the codeswitching rubric. As noted by Myers-Scotton (2002:25, 110), bilingual code-switching is possible even when speakers do not have full command of the morphosyntax of one of the languages, although Myers-Scotton (1998: 297-8) notes that "In 'classic' CS [code-switching], it is assumed speakers are proficient enough in the languages involved that they could produce monolingual utterances in either language, even though they probably are more proficient in one language than the other."

## 7. "Fluently dysfluent"mixing as congruent lexicalization

The examples of involuntary language mixing in dysfluent bilinguals' attempts to speak entirely in their non-native language do not conform to the extra-linguistic criteria for congruent lexicalization proposed by Deuchar, Muysken, and Wang (2007: 309), namely "roughly equal
prestige" of the two languages, and no tradition of overt language separation. Italian in Montevideo and Spanish in northwestern Louisiana constitute small ethnolinguistic enclaves, resulting from immigration in Montevideo and from historical leftovers in Louisiana. Brazilian Portuguese in border regions of neighboring Spanish-speaking countries has no definite prestige value; it is spoken for purely pragmatic reasons. In all of the communities examined, the languages in contact are subject to overt separation. Despite these differences, a large number of the dysfluent mixing examples coincide with instances of fluent code-switching that Muysken (2000) has characterized as congruent lexicalization, in particular the notion of words "inserted more or less randomly" (Muysken, 2000: 8). The apparent randomness of the language mixture is due not only to shared structures between the two languages (progressively fewer in the case of Portuguese, Italian, and English, respectively with respect to Spanish), ${ }^{14}$ but also to limited proficiency in the second language, which results in "filling in the gaps" by means of words from the speakers' first language. This gap-filling occurs freely when there is also at least some shared knowledge of the speakers' first language. In fact the "more or less random" nature of language mixing is at least as apparent in the dysfluent cases examined here as in any of the instances of fluent bilingual language mixing adduced by researchers who have adopted congruent lexicalization as a category of language switching.

### 7.1. Ragged mixing and putative violations of switching constraints

There are two traits listed by Muysken (2000: 230) as nearly exclusively present in congruent lexicalization (as opposed to alternation and insertion). The first category is non-constituent or "ragged" mixing, which according to Muysken (2000: 129) is to be expected in congruent lexicalization, but not in alternation or insertion, "since the switching involves single words within a shared structure." The dysfluent bilingual examples present numerous cases of non-constituent mixing, Some examples include: ${ }^{15}$
(1)

| la | otra | loja | é | tradicional |
| :--- | :--- | :--- | :--- | :--- |
| the | other | store | is | traditional |

'the other store is traditional'
\{Guayaramerín, Bolivia; switch between quantifier and head noun\}

[^6]yo miro na manhã o
I wltch $\quad$ in-the morning the $\quad$ design

| hoy cumplo | CUARANTIOCHO | ano | da | casado |
| :--- | :---: | :--- | :--- | :--- |
| today complete-1s. | forty eight | year | from | married |
| 'As of today I have been married for forty eight years' |  |  |  |  |

\{Montevideo, Italian immigrant; switch involving noun plus preposition\}

| oh man, aquí | los | conejos played out already |
| :---: | :---: | :--- |
| here | the | rabbits |

'oh man, here the rabbits played out already'
$\{$ Sabine River, Louisiana; switch involving adverb + subject DP $\}$

They just nunca aprendieron
never learned ( 3 p .)
'They just never learned'
\{Sabine River, Louisiana; switch involving negative adverb + verb\}

Congruent lexicalization is a special type of language mixing in which both the density of switches and the points at which switches occur can be greater than in code-switching between languages that share fewer structural similarities. Related to ragged or non-constituent mixing is the possibility that congruent lexicalization will allow for language switching at syntactic boundaries that have, in previous studies, been ruled out as possible switch sites. Following the early attempts at characterizing code-switching purely in terms of superficial transitions (e.g. between pronominal subjects and verbs) and overall constituent order (e.g. Lipski, 1982, 1985; Pfaff, 1979; Poplack 1980; Timm, 1975), attention was directed at hierarchical syntactic relations such as government, which resulted in often conflicting claims as to whether switching was permitted, e.g. between a complementizer and the following clause, between determiners and head nouns, and between nouns and adjectives (e.g. Belazi, Rubin \& Toribio, 1994; Bentahila \& Davies 1983; DiSciullo, Muysken \& Singh, 1986; Dussias, 2003; Halmari, 1997; Klavans, 1985; Toribio, 2001a, 2001b; Woolford, 1983). The advent of the Minimalist paradigm brought even more dissent into the debate on possible code-switching sites (e.g. Jake, Myers-Scotton \& Gross, 2002; MacSwan, 1999, 2000, 2004, 2005; Myers-Scotton, 2002; van Gelderen \& MacSwan, 2008) Without wading into the quagmire of competing syntactic analyses, there are several environments for which robust observational evidence suggests that code-switching is unlikely, especially as regards SpanishEnglish. The dysfluent Spanish-Portuguese, Spanish-Italian, and Spanish-English corpora described in the preceding sections exhibit instances of switching at these junctures, which contributes to the circumstantial evidence that the dysfluent language mixing under study allows for a greater range of switches than the more usually described instances of bilingual code-switching. Some examples are:
(2)
a. Between a pronomonial subject and predicate (e.g. Timm 1975: 477): ${ }^{16}$

| sei | lá | yo |
| :--- | :---: | :---: |
| know-1 s. $\quad$ there $\quad$ I |  |  |
| 'I don't know' |  |  |
| \{Cobija, Bolivia $\}$ |  |  |


| ela | decía | "nostra" |
| :--- | :--- | :--- |
| she | say- $3 \mathrm{~s} . \mathrm{imp}$ | our (f.) |

'she would say "nostra""
\{Cobija, Bolivia; Brazilian's attempt to speak Spanish\}
yo tamben tive ehpañol allá
I also had-1 s. Spanish there
'I also had Spanish [classes] there'
\{Cobija, Bolivia; Brazilian's attempt to speak Spanish\}

| ellos $\quad$ ja | misturam |
| :--- | :---: | :---: |
| they (m.) $\quad$ already | mix (3 p.) |
| 'they mix (languages)' |  |
| \{Guayaramerín, Bolivia\} |  |


| nosotroh | se | FUE | pa | El Dorado |
| :--- | :--- | :--- | :--- | :--- |
| we | REFL | went-3 s. | for | El Dorado |
| 'we went to El Dorado, ${ }^{17}$ |  |  |  |  |
| \{Bernardo de Irigoyen, Argentina $\}$ |  |  |  |  |

nosotro TENÍA que segurar las casa sino ía í para abajo
we have-3 s.COMP secire the-pl. house or go-3s. go-inf. for down
'we had to secure the houses or else they would fall down'
\{Bernardo de Irigoyen, Argentina\}

```
eu ya fui
I already went-1 s.
'I went already'
{Paso de los Libres, Argentina}
```

[^7]ello fala $\quad$ direito
they speak-3s. $\quad$ straight
'they speak good (Spanish)'
\{Pedro Juan Caballero, Paraguay\}

| este é | stato | el | PRUBLEMA | mio |
| :--- | :--- | :--- | :--- | :--- |
| this be-3 s. | be-pp | the | problem | my-m.s. |

'that was my problem'
\{Montevideo, Uruguay; Italians' attempts at speaking Spanish\}

| lo | que | you | tiraba | de | labor | healthy for you |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| it | COMP | you | take-imp | from | work |  |

'whatever you got from your farming, \{it was\} healthy for you'
\{Sabine River Spanish, northwestern Louisiana\}
they hervía las ollas
they boil-3pl. the pots
'they would boil the pots'
\{Sabine River Spanish, northwestern Louisiana\}
nadien gonna see dem
nobody going to see them'
'No one is going to see them'
\{Sabine River Spanish, northwestern Louisiana\}
b. Between negative words and main verb (e.g. Timm 1975: 479:

| ¿masvai | o | no | vai? |
| :--- | :--- | :--- | :--- |
| but go-3s. | or | NEG | go-3s. |

'but are (you) going or aren't you?'
\{Cobija, Bolivia\}

| não sabría | decirle |
| :--- | :--- |
| NEGknow-cond. | tell-you |

'(I) wouldn't be able to tell you'
\{Paso de los Libres, Argentina\}
él ja no pode mais
he already NEG able-3 s. more
'he can't (do it) any more'
\{Pedro Juan Caballero, Paraguay\}

```
e io no sapeva
and I NEG know-imp.
'and I didn't know'
{Montevideo, Uruguay, Italians' attempts at speaking Spanish{
si el papá y la mamá no agreed
if the dad and the mom NEG agreed
'if the father and the mother didn't agree'
{Sabine River Spanish, northwestern Louisiana}
```

c. Between fronted interrogative words and the remainder of the sentence (Woolford 1983: 531, 1984; Peñalosa 1980: 58):
quién quer ter mah conocimiento
who want-3s. have more knowledge
'whoever wants to have more knowledge'
\{Cobija, Bolivia; Brazilians’ attempts at speaking Spanish\}

| ¿kome me | DEKA ko | due | CIKILINI? |
| :--- | :--- | :--- | :--- |
| how me | leave-3s. with | two | child-pl.-dim. |

'How can you leave me with two small children?'
\{Montevideo, Uruguay; Italians' attempts at speaking Spanish\}
nobody know which way jueron
nobody know which way went-3 pl.
'nobody knows where (they) went to'
\{Sabine River Spanish; northwestern Louisiana\}
d. Between auxiliary verb and non-finite verb (e.g. Timm 1975: 478):
[es]toy vivindo cuatro mese
be-1 s. living four months
'I have been living for four months'
\{Cobija, Bolivia; Brazilians' attempts at speaking Spanish\}

| porque não | tem | como | le | puedo | falar | vitrina |
| :--- | :---: | :---: | :--- | :---: | :--- | :--- |
| because NEG | have | how | you | can-1s. | speak | window |

'because there isn't how can I explain it, a show window'
\{Guayaramerín, Bolivia\}

| $o$ | brasileiro | que | vem | vem | hacer | compra |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| the | Brazilian | COMP come come | make | purchase |  |  |
| 'The Brazilian(s) who come come to buy’ |  |  |  |  |  |  |
| $\{$ \{Pedro Juan Caballero, Paraguay \} |  |  |  |  |  |  |


| vine | a | morar | a | Corrientes |
| :--- | :--- | :--- | :--- | :--- |
| came-1s. | to | live | at | Corrientes |

'I came to live in Corrientes'
\{Paso de los Libres, Argentina\}

| teria | que | preguntar | $n a$ | aduana |
| :--- | :--- | :--- | :--- | :--- |
| would-have | COMP | ask | in-the | customs |

'you would have to ask at the customs office'
\{Bernardo de Irigoyen, Argentina\}

| CE | ne | voleva | andá |
| :--- | :--- | :---: | :---: |
| us | PART | wish-3s-imp | walk |

'he didn't want to walk for us'
\{Montevideo, Uruguay; Italians' attempts at speaking Spanish\}
e. Violations of the Free Morpheme Constraint (Poplack, 1980); Sp. $=$ Spanish; It. $=$ Italian: ${ }^{18}$
zo kuando yeg- ai aká

I when arrive (Sp.) 1 s.-pret (It.) here
'when I arrived here'
\{Montevideo, Uruguay; Italians' attempts at speaking Spanish\}

| kuattro vese an | id- | e |  |
| :--- | :--- | :--- | :--- |
| four times | have-3pl. | gone (Sp.) | fem. pl. (It.) |
| 'they went four times' |  |  |  |

\{Montevideo, Uruguay; Italians’ attempts at speaking Spanish\}
f. Between clitic and verb (e.g. Timm 1975: 478):
tenía- ne ke ablá
had-3 s. PART COMP speak
'(he) had to talk about it'
\{Montevideo, Uruguay; Italians’ attempts at speaking Spanish\}

```
mi ise una PLAKKA
me had-1s. DET-f. plaque
```

'I had an x-ray taken'
\{Montevideo, Uruguay; Italians’ attempts at speaking Spanish\}

[^8]g. Between complementizer and subordinate clause (e.g. Belazi, Rubin, Toribio 1994):
había más que comer que lo que I can get ahold to now
had-3s. more COMP eat COMP it COMP I can get ahold of now
' there was more to eat than I can get now'
\{Sabine River Spanish; northwestern Louisiana\}

| I | don't | think | $[Ø]$ | ellos | hacían | queso |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| I | don't | think | COMP | they | made- 3 pl. | cheese |

'I don't think \{that\} they made cheese'
\{Sabine River Spanish; northwestern Louisiana\}

### 7.2. Switches of function words.

According to Muysken's three-way typology, only congruent lexicalization allows for switches of function words, defined as elements that have no descriptive content and perform an essentially grammatical function (e.g. Radford 1997: 261); once more, dysfluent mixing contains apparent instances of switches involving functional elements, as in the following examples (where switches are assumed to occur :
\(\left.\begin{array}{lllll}mai loh \& viejoh \& sólo \& hablan \& portugueh <br>

but the old-m.pl. \& only \& speak-3pl. \& Portuguese\end{array}\right]\)| 'but the old people only speak Portuguese' | $\{$ Pedro Juan Caballero, Paraguay; switch involving conjunction $\}$ |
| :--- | :--- |


| pero mais | lo | de | abrigo |
| :--- | :--- | :--- | :--- |
| but more | it | of | overcoat |

'but mostly about overcoats' \{Paso de los Libres, Argentina; switch involving adverb\}
¿adónde bai?
to-where go-2s.
'where are you going?'
\{Montevideo, Italian immigrant; switch involving interrogative adverb\}

| por | $a$ | farta | re | salú |
| :--- | :--- | :--- | :--- | :--- |
| for | DET | lack | of | health |

'for lack of (good) health'
\{Montevideo, Italian immigrant; switch involving (dialectal Italian) article\}
[es]tas cansado all right
be-2s. tired-m. all right
'You are tired all right'
\{Sabine River Spanish, northwestern Louisiana; switch involving tag adverb\}

| lo | bajábamos | way | abajo |
| :--- | :--- | :--- | :--- |
| it | lower-1 pl.-imp. | way | down |

'we put it way down'
\{Sabine River Spanish, northwestern Louisiana; switch involving intensifying adverb\}

### 7.3. Diversity of switch types

The corpora of fluently dysfluent language mixing show a great diversity of switch types, involving virtually every conceivable constituent as well as fragments of constituents and chunks that include elements from more than one constituent. This diversity of switching is also more characteristic of congruent lexicalization than of alternation or insertion. The presence of "homophonous diamorphs" (words that are phonetically similar in both languages, such as casa 'house,' [kasa] in Spanish, [kaza] in Portuguese) is a major feature of Spanish-Portuguese alternation that coincides with the definition of congruent lexicalization; homophonous diamorphs are fewer in Spanish-Italian (largely confined to some functional elements), although clearly recognizable cognates abound. Spanish and English share no significant homophonous diamorphs.

## 8. Identifying language switches in the present corpus

Given that the speakers under study are not balanced bilinguals, and that their recorded interviews represent an attempt to speak in a single language, the identification and classification of language switches deserves additional comment. In any bilingual environment, language switching must be distinguished from borrowing, both established loanwords and nonce borrowings. ${ }^{19}$ Brazilian Portuguese as spoken along the borders with Spanish-speaking countries has not incorporated any Spanish loanwords (except for occasional product names), while only in Cobija, Bolivia has a handful of Portuguese items been incorporated into the local Spanish lexicon (Saavedra Pérez, 2002:143-153), none of which occurs in the $L_{2}$ Portuguese corpus collected in that city. Similarly, although Italian has contributed many items to Uruguayan Spanish, none of these items occurred in the Montevideo Italian-Spanish corpus. In northwestern Louisiana, a few English words have become lexicalized in the vestigial Spanish dialect, but once again these items did not appear in the discourse fragments analyzed for the present study. Therefore lexical borrowings can be excluded in the case of Spanish items occurring in $L_{2}$ Portuguese, Italian items occurring in $L_{2}$ Spanish, and English items occurring in the vestigial Spanish of northwestern Louisiana. Nonce borrowings (in the sense of Poplack, Sankoff \& Miller, 1988; Poplack, Wheeler \& Westwood, 1989; Sankoff, Poplack \& Vanniarajan, 1990) are typically lexical content words, not function words, that are used spontaneously in bilingual discourse, but not in putatively monolingual speech. ${ }^{20}$ Since the data collected for the present study come from attempts to speak in a single language, nonce borrowings are unlikely in most instances, although they cannot be totally ruled out. For the purposes at hand, nonce borrowings pattern together with other spontaneous bilingual incursions.

[^9]Deuchar, Muysken, and Wang (2007: 309-311) discuss the difficulties in identifying language switches based solely on linear order, especially when single-word switches are at stake. They opt instead for an analysis based on the matrix language, as defined by Myers-Scotton (1992, 1993, $2002 ;{ }^{21}$ in their analysis, word order and subject-verb agreement are the principal criteria for determining the matrix language. When there is insufficient morphosyntactic material to use these criteria, the matrix language is assumed to be the language of the first word in the clause. Interclausal switches are also identified based on sequential order.

In the case of Spanish-Portuguese and Spanish-Italian contacts, the word order patterns are essentially identical for each language, except for occasional small differences in clitic placement. Subject-verb agreement in Portuguese is highly cognate with Spanish, so for most SpanishPortuguese language switching, sequential order is the only basis for identifying language switches. The same is substantially true for Spanish-Italian contacts; although Italian subject-verb agreement differs somewhat from Spanish patterns, there are few instances of Italian verb morphology produced during attempts at speaking Spanish. Spanish and English exhibit a wider range of morphosyntactic differences, but in the case of the vestigial Spanish of northwestern Louisiana, nearly all of the Spanish clause patterns are a proper subset of occurring English patterns; such Spanish-only options as subject-verb inversion and topicalization do not occur in this corpus. Only the use of null subjects in Spanish stands out as a syntactic differentiator, although the order of the remaining constituents is the same for both Spanish and English. Once more, sequential order is the prime cue for identifying switches. Since in all of the interviews the intent was to speak in a single language, there are very few instances where a sentence or clause begins with the non-target language. As a result of these considerations, for the $\mathrm{L}_{2}$ Portuguese speech from Argentina, Bolivia, and Paraguay, Portuguese is taken to be the matrix language. For the $\mathrm{L}_{2}$ Spanish of Brazilians in Cobija, Bolivia and of Italians in Montevideo, Uruguay, Spanish is assumed to be the matrix language. Spanish is also taken to be the matrix language for the vestigial Spanish of northwestern Louisiana, except in those few instances where a sentence was started in English, despite the presumption that only Spanish was to be used.

## 9. A componential analysis of dysfluent language mixing

In order to support the notion that dysfluent language mixing is a form of code-switching, the dysfluent mixed examples can be compared with the quantitative componential analyses used by Deuchar, Muysken, and Wang (2007: 323-320) to distinguish insertion, alternation, and congruent lexicalization. These authors acknowledge that whereas individual tokens of language switching can often be analyzed unambiguously as representing one of the three categories, bilingual speech in any particular speech community normally exhibits a combination of switch types. Preliminary analyses conducted on samples of code-switching from a selection of bilingual communities suggests that in most cases, one of the three switch types will emerge as predominant, which can in turn be correlated with the respective linguistic and extralinguistic factors proposed for that category. In order to assign a predominant category to code-switching in a given speech community, the authors assign individual category scores to each switch token, based on the criteria in Table 3, taken from Muysken (2000: 230). The criteria are grouped under four headings: constituency, element switched, switch site, and properties of the switch. For each category, if the observed feature in the occurring switch coincides with the expected value in the table, a score of 1 is assigned. If the opposite value is predicted by the table, a score of -1 is assigned, and if the value in the table is neutral or the feature in question does not occur in the switch, a score of 0 is assigned.

[^10]The category receiving the highest score defines the predominant category for the switch, while adding up the individual category scores for all switches in a given corpus will yield composite figures that indicate the predominant switch type for the entire corpus.

|  | Insertion | Alternation | Congruent lexicalization |
| :---: | :---: | :---: | :---: |
| Constituency |  |  |  |
| single constituent | + | 0 | 0 |
| several constituents | - | + | 0 |
| non-constituent | - | - | $+$ |
| nested a b a | $+$ | - | 0 |
| not nested a b a | - | + | + |
| Element switched |  |  |  |
| diverse switches* | - | 0 | + |
| long constituent | - | $+$ | - |
| complex constituent | - | $+$ | - |
| content word | + | - | - |
| function word | - | - | $+$ |
| adverb, conjunction | - | $+$ | - |
| selected element | + | - | + |
| emblematic or tag | - | + | 0 |
| Switch site |  |  |  |
| major clause boundary | 0 | + | 0 |
| peripheral | 0 | + | 0 |
| embedding <br> in <br> discourse | 0 | + | 0 |
| flagging | - | + | - |
| dummy word insertion | + | 0 | - |
| bidirectional switching* | - | + | + |


| Properties |  |  |  |
| :--- | :---: | :---: | :---: |
| linear equivalence | 0 | + | + |
| telegraphic mixing | + | - | - |
| morphol. integration | + | - | + |
| doubling* | - | + | - |
| homophonous | 0 |  | + |
| diamorphs* | 0 | 0 | + |
| triggering | 0 | - | + |
| mixed collocations | - | + | - |
| self-corrections |  |  | + |

Table 3: Code-switching types, from Muysken (2000: 230)
Criteria marked with * not calculated for individual switches.

### 9.1. A discussion of the componential criteria

A detailed account of these criteria and their application can be found in Deuchar, Muysken, and Wang (2007), but some of the less transparent categories will be summarized here. The categories "single constituent," "several constituents," and "non-constituent" are self-explanatory, and are exemplified by:
(4)
a. single constituent (determiner phrase)

you know what dolor de | what pain of |
| :--- |
| you know $\quad$ side | is

'Do you know what a pain in the side is?'
\{Sabine River Spanish, northwestern Louisiana\}
b. several constituents (embedded clause)
você não ta entendendu lo que quiere decir
you NEG COP understanding it COMP want-3s.say
'you don't understand what that means'
\{Cobija, Bolivia\}

```
c. non-constituent (adverb + verb)
They just nunca aprendieron
they just never learned-3pl.
'They just never learned'
{Sabine River Spanish; northwestern Louisiana}
```

"Nested" and "non-nested" refer to switches that have other or matrix language material both before and after. In nested examples the material both before and after the switched portion belong to the same clause, while in non-nested switches the preceding and following elements belong to different clauses:
a. nested
el predio del ehtudiante
the building of-the student
'the student building'
\{Cobija, Bolivia; Brazilians’ attempts at speaking Spanish\}
b. non-nested

| [we] used | to | sembrar mais, but | no | more |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| we use | to | plant corn | but | no | more |

'We used to plant corn, but not any more'
\{Sabine River Spanish, northwestern Louisiana
"Diverse switches" is a criterion that applies to an entire corpus, and was not used to assign numerical values to individual switches. Long constituents are those having more than a single word, such as example (4a), while complex constituents have a hierarchical internal structure with more than one lexical head, as in example (4b). "Selected element" receives a positive value if the switched item serves as an object or complement, as in (6):
(6)

| a | veces | aparece[n] | palavras | mah | difícil |
| :--- | :--- | :--- | :--- | :--- | :--- |
| at | times | appear-3s. | words | more | difficult (s.) |

'at times more difficult words appear'
\{Cobija, Bolivia; Brazilians’ attempts at speaking Spanish\}
"Emblematic or tag" refers to individual tag phrases as in (7), and is assumed to take a minus value with switched long constituents, selected elements, or morphological integration (Deuchar, Muysken, and Wang 2007: 316).
(7)

| con una | cabeza | de | ajo | you know |
| :--- | :--- | :--- | :--- | :--- |
| with one | head | of | garlic | you know |

'with a head of garlic you know'
\{Sabine River Spanish, northwestern Louisiana\}
"Peripheral" switches occur on the periphery of a clause, as vitrina in (8)

| porque não | tem | como | le | puedo | falar | vitrina |
| :--- | :---: | :---: | :--- | :---: | :--- | :--- |
| because NEG | have | how | you | can-1s. speak | window |  |

'because there isn't how can I explain it, a show window'
\{Guayaramerín, Bolivia\}
"Embedding in discourse" refers to switches that come at the end of a turn; a positive value is assigned if the next turn begins in the same language, and a negative value if the following turn is in the other language. An example of a negative value for embedding is (9), where each sentence was produced by a different speaker:

| su papi | $y$ | mami | never | did. | nunca | hablaron | español |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| POSS dad | and | mom | never | did | never | spoke-3 pl. | Spanish |

'Their dad and mom never did. (They) never spoke Spanish.'
\{Sabine River Spanish, northwestern Louisiana\}
"Flagging" refers to a switch marked by a discourse marker, pause, or repair, as in (10), where the speaker corrected herself:

| entonces | you'd | go | in | buggies, | en | caballos |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| then | you'd | go | in | buggies | on | horses |

'Then you'd go in buggies. On horses.'
\{Sabine River Spanish, northwestern Louisiana\}
"Dummy word insertion" refers to the insertion of semantically empty elements, as well in (11) (11)
well tenemos molinos ahora
well have-1 pl. mills now
'Well we have mills now'
\{Sabine River Spanish; northwestern Louisiana\}
"Bidirectional switching," like diverse switching, refers to the entire corpus, and was not computed for individual switches. "Linear equivalence" refers to "whether the switched material occurs in the same position in the clause, sequentially, in which it would have appeared in the matrix language" (Deuchar, Muysken \& Wang, 2007: 316), and would be positive for most cases of Spanish-Portuguese and Spanish-Italian switching. An example of a negative value would be dolor de costao in (4a). "Telegraphic mixing" refers to the omission of elements that should have been present in one or both languages, as the zero complementizer in $(2 \mathrm{~g})$. "Morphological integration" refers to cases where "one of the languages determines the overall grammatical framework, and
where items switched from the other language are morphologically integrated into the main or matrix language" (Deuchar, Muysken \& Wang, 2007: 316-317). Example (12a) demonstrates morphological integration; the Spanish adjective argentina exhibits feminine gender concord with the Portuguese noun qualidade. In (12b) the Portuguese adjective brasileiro does not receive the expected Spanish plural marker $/-\mathrm{s} /$, reflecting the vernacular Brazilian Portuguese trait of marking plural $/-s /$ only on the first element of plural DPs.
(12)
a.

| $a$ | qualidade | $\operatorname{ar}[\mathrm{x}]$ entina | gosta | mas |
| :---: | :---: | :---: | :---: | :---: |
| the | quality | Argentina | please-3s. | mor |

'Argentine quality is more pleasing'
\{Paso de los Libres, Argentina\}
b.

| até loh | propio | brasileiro | no | saben | bien |
| :--- | :--- | :--- | :--- | :--- | :--- |
| even the-pl. | same | Brazilian | NEG | know-3pl. | know |
| 'Even the Brazilians themselves don't know' |  |  |  |  |  |
| \{Cobija, Bolivia; | Brazilians' attempts at speaking | Spanish \} |  |  |  |

"Doubling" occurs when "the semantic value of the switch is the same as that of another morpheme in the original language also found in the utterance" (Deuchar, Muysken \& Wang, 2007: 317); the present corpus contains no examples of doubling. Homophonous diamorphs are words that are phonetically similar in both languages, and describes an entire corpus; this criterion was not computed individually for the language switches under study. "Triggering" (Clyne, 1967) describes multi-word switches in which the choice of one of the words in the switch (e.g. as in a proper noun) may lead to the switching of a longer string, as in (13), where freezer appears to trigger a longer switch into English:

| entonci | sacarlos en el | en | freezer and spread some pepper you know |
| :--- | :--- | :--- | :--- |
| then take-them in the freezer and spread some pepper you know |  |  |  |

"Mixed collocations" occur when the two parts of an idiomatic expression in one language are from both languages, as in (14), where the English expression "hard to believe" and Spanish "tough movement" constructions of the form ADJECTIVE PARA INFINITIVE form the basis for a mixed collocation:

| es duro | $p a$ | creer | but we got two | muchacho |
| :--- | :--- | :--- | :--- | :--- |
| be-3s. | hard | for | believe but we got two | child |

'It's hard to believe but we have two children'
\{Sabine River Spanish; northwestern Louisiana\}
"Self-corrections" involve a repetition of similar material in the other language, sometimes following a hesitation, as in (15):

## (15)

they're real tender you know, blanditos
they're real tender you know soft-m. pl.
\{Sabine River Spanish; northwestern Louisiana\}

### 9.2. Conducting the componential analysis

In order to subject dysfluent Spanish-Portuguese, Spanish-Italian, and Spanish-English mixing to the same componential analysis, instances of language switching were extracted from the data collected in each of the speech communities described in the preceding sections. For each community, samples of recorded interviews containing substantial language mixing were extracted for analysis; in each sample, all tokens of language switching were analyzed, in order to avoid any potential bias in favor of a particular type of mixing. A preliminary scan of the Spanish-Portuguese data from Bolivia, Paraguay, and Argentina indicated no statistically significant differences in switch type among the five communities, so the data from Cobija and Guayamerín in Bolivia, Pedro Juan Caballero in Paraguay, and Bernardo de Irigoyen and Paso de los Libres in Argentina were combined into a single corpus. The tokens of Brazilian speakers' Spanish in Cobija, Bolivia form a separate corpus. Italian-Spanish mixing in Montevideo was tabulated separately, as was SpanishEnglish mixing in northwestern Louisiana.

To ensure compatibility with the proposals of Deuchar, Muysken, and Wang (2007), these authors' criteria for selecting and coding examples of language-switching were employed in the analysis of Spanish-Portuguese, Spanish-Italian, and Spanish-English dysfluent language mixing. The composite results are presented in Table 4.

|  |  | Portugue <br> Paraguay | kers' <br> via, <br> ina) <br> 22 | speak (Cobija, B | ish $\mathrm{N}=$ | Spanish (M | akers' <br> ) ; $\mathrm{N}=$ | River spea <br> N | abine anish; |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Insertion | I <br> \% | 45 8 | $31 / 29$ $\%$ | $\begin{array}{r} 29 \\ 5 \end{array}$ | $\begin{array}{r} 21 / 41 \\ \% \end{array}$ | 586 | 24/15\% | 90 | $\begin{array}{r} 24 / 15 \\ \% \end{array}$ |
| Alternatio n | \#/ \% | $447$ | 4/4\% | $254$ | 0/0\% | -922 | 2/1\% | $186$ | $\begin{array}{r} 40 / 25 \\ \% \end{array}$ |
| Congruent lexicalization | \#/ \% | $\begin{array}{r} 65 \\ 3 \end{array}$ | $\begin{array}{r} 69 / 67 \\ \% \end{array}$ | $\begin{array}{r} 33 \\ 2 \\ \hline \end{array}$ | $\begin{array}{r} 30 / 59 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 142 \\ 8 \end{array}$ | $\begin{array}{r} 136 / 85 \\ \% \end{array}$ | 59 6 | $\begin{array}{r} 96 / 60 \\ \% \end{array}$ |
| Dominant pattern |  | CONGRUENT |  | CONGRUENT |  | CONGRUENT |  | CONGRUENT |  |

Table 4: Code-switching patterns in fluently dysfluent speech
${ }^{22}$ There was one token with an equal score for alternation and congruent lexicalization.
${ }^{23}$ In the Portuguese speakers' Spanish in Bolivia, there was one token with an equal score for insertion and congruent lexicalization.
${ }^{24}$ There was one token with an equal score for alternation and congruent lexicalization.

## 10. Discussion of the componential analysis

Despite qualitative and quantitative differences among the various language mixing corpora, the componential data in Table 4 provide support for the proposals offered in Deuchar, Muysken, and Wang (2007) to the effect that while all three code-switching types typically appear in a given speech community, one type generally predominates. The data in Table 4 have been augmented by the inclusion of the number of switches of each type computed as percentage of the total switches for each corpus. In other words, the "winning" score for each switch was regarded as defining the primary switch type, for purposes of comparison. From these figures it can be seen that while congruent lexicalization emerges as the predominant type of language switching for each speech community, the percentage of individual switches classified as insertion, alternations, and congruent lexicalization varies among the corpora. In all of the corpora, congruent lexicalization receives the highest overall score, and represents the majority of the switch types, with comparable percentages across a diverse set of linguistic and social scenarios. Despite the apparent differences between the $\mathrm{L}_{2}$ Portuguese and $\mathrm{L}_{2}$ Spanish corpora, t -tests on the respective insertion, alternation, and congruent lexicalization scores reveal no significant differences based on speakers' $L_{1}$ and $L_{2}$. ANOVA tests run on each of the three scores across all four corpora reveal significant differences ( $\mathrm{p}<.001$ for insertion, alternation, and congruent lexicalization scores), as do t-tests applied pair-wise to Spanish-Portuguese vs. Italian-Spanish, Spanish-Portuguese vs. Sabine River Spanish-English, and Italian-Spanish vs. Sabine River Spanish-English ( $\mathrm{p}<.001$ for all cases). These differences confirm that congruent lexicalization is not a monolithic process, but rather an intermeshed set of strategies for negotiating bilingual encounters in a variety of settings.

As might be expected of the Spanish-Portuguese and Spanish-Italian dysfluent mixing, alternation comes in a distant third, after congruent lexicalization and insertion. Alternation is the hallmark of fluent bilingualism, where large segments in each language are produced, typically switching at clause boundaries. Dysfluent speakers trying to speak entirely in their incompletely learned $L_{2}$ are rarely capable of such alternation, nor would it be appropriate in a context in which the tacit assumption is that only the $L_{2}$ is to be used. The Sabine River Spanish dialect, although spoken only vestigially by the participants in the present corpus, is the product of a community in which more balanced bilingualism once prevailed, and alternation-including many impromptu "asides" in English-accounts for the second largest number of switches, although presenting a total score that falls below both insertion and congruent lexicalization. The componential profile of the Sabine River Spanish dialect is best described as a hybrid, combining alternation (most probably inherited from earlier stages of bilingual fluency), and ragged code-mixing stemming from the dysfluent semi-speaker or vestigial bilingual competence of current speakers. The fact that the percentage of individual switches analyzed as alternations is higher than the percentage of individual insertions, although the total score for alternation is lower than that for insertion, requires further study. It may be that some of the criteria in Table 3 that assign a negative or null value for alternation should be revised. The data in the present study are not sufficient to warrant any specific suggestions at this time. ${ }^{25}$

The highest percentage of congruent lexicalization tokens comes from the Montevideo Italian speakers' attempt to speak Spanish; this is substantially due to the large number of attachments of Italian plural noun suffixes and Italian verb desinences to Spanish roots: e.g. erman-i 'brothers' (It.

[^11]fratell-i; Sp. hermano-s); agarr-ai 'I took’; (It. presi, ${ }^{26}$ Sp. agarr-é). Also frequent are the insertion of Italian clitics into Spanish verbal expressions (e.g. tenía-ne ${ }^{27}$ que ablá '(I) had to talk about it'; Sp. (yo) tenía que hablar de eso). ${ }^{28}$

## 11. Conclusions

Although congruent lexicalization has heretofore been associated with fluent bilingualism, while insertion has been regarded as a frequent concomitant of nonfluent interference (e.g. Gumperz \& Hernández-Chávez 1970, Zentella 1981), the dysfluent mixing data from a broad cross-section of sociolinguistic environments show a close fit with congruent lexicalization across a wide range of analytical criteria. The research reported here suggests that what is referred to as "fluent dysfluency" in bilingual contact environments can produce configurations that both differ from and resemble combinations that occur in the speech of fluent balanced bilinguals. In particular, the three-way typology of code-switching proposed by Deuchar, Muysken, and Wang can be expanded to include the type of congruent lexicalization produced during fluently dysfluent bilingual speech. In effect this fourth category combines extralinguistic factors previously associated only with insertion, the (un)intentionality normally correlated with interference, and the linguistic factors proposed for congruent lexicalization. A first approximation to such a refined typology is presented in Table 5, with an additional category: "dysfluent congruent lexicalization".

Key factors that facilitate the high density of code-mixing in dysfluent congruent lexicalization are: (1) incomplete fluency in the $\mathrm{L}_{2}$ coupled with the intention to speak only in $\mathrm{L}_{2}$; (2) native $\mathrm{L}_{2}-$ speaking interlocutor's competence in the speakers' $\mathrm{L}_{1}$; (3) lack of social consequences for involuntary mixing; (4) the fact that the speakers' $\mathrm{L}_{1}$ has no established status in the bilingual environment, although its presence may be acknowledged, and the same language may be dominant in nearby communities or in other situations within the same community (e.g. Spanish near the Brazilian border, which is the established standard except for interactions with visiting Brazilians, when Portuguese is the expected vehicle of communication). This combination of factors clearly overrides purely linguistic constraints on language switching, whether they be morphosyntactic or pragmatic, and results in what can only be termed mixed language. In most circumstances, such mixed speech is a transitory and effervescent phenomenon, arising spontaneously whenever a partially fluent bilingual communicates under the circumstances just delineated, but given the proper combination of events, a stable mixed language could emerge.

[^12]| Codeswitching type | Linguistic factors favoring this type | Extralinguistic factors favoring this type |
| :---: | :---: | :---: |
| Insertion | Typological distance | Colonial settings; recent migrant communities; asymmetry in speaker's proficiency in two languages |
| Alternation | Typological distance | Stable bilingual communities; tradition of language separation |
| Congruent lexicalization (fluent) | Typologically similar languages | Two languages have roughly equal prestige; no tradition of overt language separation |
| Congruent lexicalization (dysfluent) | Typologically similar languages; incomplete $L_{2}$ acquisition or vestigial $L_{1}$ speaker during attrition; attempts to speak only in $L_{2}$ | $\mathrm{L}_{2}$ is dominant language of the community; $\mathrm{L}_{1}$ has no established status; native $\mathrm{L}_{2^{-}}$ speaking interlocutors are competent in speakers' $L_{1}$; no social stricture against involuntary mixing in informal contexts |

Table 5: Revised code-switching typology

Remaining for future study is a detailed examination of the differences between fluently dysfluent language mixing and code-switching among fluent bilinguals. In the case of SpanishEnglish code-switching, the dysfluent Sabine River Spanish data presented here appear to differparticularly in terms of the frequency of "ragged mixing"-from published examples of fluent Spanish-English bilingual mixing, e.g. in Aguirre (1981), Álvarez (1989), Lipski (1985), Moyer (1992), Pfaff (1979), Poplack (1980), Sánchez (1983), Timm (1975), Torres (1997), Valdés-Fallis (1976), Zentella (1997). No comparable corpora exist for fluent Spanish-Portuguese codeswitching, since such behavior is not typical of any contemporary speech community. Elizaincín (1992) and Stefanova-Gueorgiev (1987) survey the sociolinguistic situation along the SpainPortugal and Brazil-Uruguay border, while Lipski (2006) presents examples of playful Internet creations of "Portuñol/Portunhol" by cyber-chatters, but in none of these cases is fluent bilingual language mixing at stake. There are also no contemporary speech communities in which Spanish and Italian are freely mixed among fluent bilinguals, although such circumstances may have existed for one or more generations in the first half of the $20^{\text {th }}$ century in Buenos Aires and Montevideo (e.g. Blengino, 1990; Lavandera, 1984; Meo Zilio, 1989; Nascimbene, 1988; Rosell, 1970). Any observations of fluent Spanish-Italian or Spanish-Portuguese code-switching will therefore have to be based on opportunistic encounters with individuals who for whatever reason meet the required criteria.

The type of language mixing described in the present study is by no means confined to specific border environments, but can be observed in a variety of situations that satisfy the basic criteria set forth in Table 5. The ease with which numerous examples of fluently dysfluent mixing were identified in a relatively short time period suggests that this is a frequently occurring phenomenon that deserves additional study. ${ }^{29}$

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[^0]:    ${ }^{1}$ Elizaincín (1973, 1976, 1979, 1992), Elizaincín, Behares \& Barrios (1987), Carvalho (2003a, 2003b, 2004a, 2004b), Douglas (2004), Rona (1965), Hensey (1972, 1982a, 1982b).

[^1]:    ${ }^{2}$ Field research in Cobija was conducted in 2005. I am grateful to Lic. Ingard Miauchi of the Universidad Amazónica del Pando for her invaluable assistance.
    ${ }^{3}$ Field work in Guayaramerín was undertaken in 2007. Dr. Kelly Gamboa, Oficial Mayor of the Alcaldía Municipal, provided much-appreciated assistance.
    ${ }^{4}$ The nation's second largest city, Ciudad del Este (formerly Puerto Stroessner) is also on the Brazilian border, linked to its Brazilian counterpart Foz do Iguçú by a bridge across the Paraná river. In Ciudad del Este a large number, perhaps the majority of residents have emigrated from other regions of Paraguay in search of jobs in this economic boom town, whose economy is thriving due to the large numbers of Brazilians who arrive daily to shop in the enormous duty-free zone. Although Paraguayans engaged in commerce with Brazilians speak some Portuguese, in most areas of this large and sprawling city no Portuguese is spoken, although most residents watch Brazilian television programs.
    ${ }^{5}$ I am grateful to Derlis Torres, who provided me with many valuable contacts in Pedro Juan Caballero, where fieldwork was conducted in June 2008. Thanks are also due to Prof. Nilsa Franco.

[^2]:    ${ }^{6}$ Fieldwork in Paso de los Libres, conducted in June 2008, was greatly facilitated by Prof. María Silvia Chichizola, director of bilingual education, and by her colleagues at the Escuela Vicente Eladio Verón.
    ${ }^{7}$ Field work in Bernardo de Irigoyen was conducted in June, 2008. I am grateful to Prof. Fátima Zaragoza of the Escuela Frontera, who provided invaluable assistance in collecting data.

[^3]:    ${ }^{8}$ Inevitably, this resulted in speakers with varying levels of proficiency in Portuguese, although the actual approximations to Portuguese show relatively little intra-speaker variation as regards the amount and type of Spanish incursion. This is probably due to the fact that in each community the chosen speakers routinely used Portuguese for a specific purpose and in a single setting, typically involving commerce. In Cobija, Bolivia, the resident Brazilians use Spanish not only in the university setting, but also in other daily activities. For this reason, interviews were conducted with Brazilians who had passed the crash course in Spanish required of all arriving Brazilian students but who had spent fewer than two years in Cobija.
    ${ }^{9}$ The local varieties of Portuguese spoken in the border regions of southeastern Brazil differ considerably from the major urban standards that serve as benchmarks for Brazilian Portuguese, although my rather generic-and often "portunhol" influenced-Portuguese appeared to present no difficulties to the speakers. The accompanying presence of a bilingual community member served to smooth over any potential infelicities.

[^4]:    Montevideo and was able to obtain samples of language mixing, but the rich tapestry of variants studied by Barrios has now disappeared forever.
    ${ }^{12}$ In the case of the Montevideo Italian speakers, conversational asides produced entirely in Italian were not considered. Examples of language mixing were drawn from those interview segments in which Spanish was the clear matrix language. Although Spanish and Italian share many recognizable cognate items, the number of identical cognates or homophonous diamorphs is much smaller than in the case of Spanish vs. Portuguese. Since the Montevideo Italian data come from speakers nearly all of whom are now deceased, it is impossible to verify questions of overall proficiency and language usage beyond the information provided by Barrios (1999), and secondarily by my own interviews with some of the last remaining Italian immigrants in Montevideo.

[^5]:    ${ }^{13}$ While there is considerable research on the linguistic structures produced during language erosion (e.g. for Spanish, Harris (1994); Hill (1983); Holloway (1997); Lipski (1993, 1996); Martínez (1993); SilvaCorvalán (1994); for general issues Dorian (1981); Myers-Scotton (2002: chap. 5), among many others),

[^6]:    ${ }^{14}$ Woolard $(1999,2007)$ defines bivalency as the existence of identical cognate elements shared between two languages and which in hybrid, mixed, or code-switched speech cannot be unambiguously identified as belonging to one language or the other. The Spanish-Portuguese mixtures contain enough bivalent elements to smooth over many of the imperfections. Given the fluency with which such speech is produced, it creates the impression of a much higher level of proficiency in the L2 than is actually the case.
    ${ }^{15}$ Spanish words are in regular typeface, Portuguese and Italian words are in italics, cognate homophonesallowing for differences in spelling and low-level phonetic differences-are in bold, and neologisms or hybrid forms combining both Spanish and Portuguese or Spanish and Italian elements are in small caps. Cognate homophones are quite frequent between Spanish and Portuguese, spanning both lexical content items (nouns, verbs, and adjectives) and functional words (e.g. prepositions, articles). Shared homophones between Spanish and Italian are comparatively fewer, and also include both lexical content items and functional items such as prepositions and clitics. Spanish and English have few if any true shared homophones. In the Spanish-English examples, Spanish words are in italics. All Spanish-Portuguese and Spanish-English examples come from my own field work. The Spanish-Italian examples are drawn from Barrios (1999) and from recordings supplied by Dr. Graciela Barrios.

[^7]:    ${ }^{16}$ Van Gelderen \& MacSwan (2008) provide a theoretical analysis of the prohibition against code-switching with single pronominal subjects, but the possibility of switches to conjoined subject DPs including a pronoun, such as Juan y yo 'John and I,' and él y yo 'he and I.'
    ${ }^{17}$ This example and the one following are analyzed as involving a language switch between a pronominal subject and predicate, since the Spanish pronoun is followed by the hybrid verb form based on the Spanish lexical root but the use of invariant $3^{\text {rd }}$ person singular non-agreeing verb inflection from vernacular Brazilian Portuguese.

[^8]:    ${ }^{18}$ In the "4-M" approach to the Matrix Language Framework, as formulated by Myers-Scotton (2002: 88), verbal inflections are considered as "late outsider system morphemes" and must come from the matrix language. The MLF would consider the first example to have Italian as a matrix language, although nearly all the other morphemes in the sentence come from Spanish. No clear matrix language can be assigned to the second example, since it contains both Spanish and Italian agreement morphemes.

[^9]:    ${ }^{19}$ Deuchar, Muysken \& Wang (2007) suggest that dictionaries can be used to verify established borrowings. In the case of the Spanish-Portuguese, Spanish-Italian, and Spanish-English mixing reported here, none of the words analyzed as lexical insertions appear in the respective dictionaries.
    ${ }^{20}$ Sankoff, Poplack \& Vanniarajan (1990: 71) characterize nonce borrowings as "not necessarily [...] recognized by host language monolinguals." Therefore nonce borrowings would not be expected in the speech of dysfluent bilinguals attempting to speak exclusively in their weaker language. In the data collected for the present study, the putatively involuntary language mixing produced during attempts to speak entirely in the non-fluent language is presumed to be facilitated by the tacit assumption that interlocutors can recognize words in the speakers' first language. Therefore, occasional nonce borrowings cannot be completely ruled out.

[^10]:    ${ }^{21}$ Myers-Scotton (2002: 100 and passim.) does not fully accept the notion of congruent lexicalization as defined by Muysken (2000), although she does hint at the possibility of a composite Matrix Language in some bilingual clauses.

[^11]:    ${ }^{25}$ All of the bilingual corpora analyzed by Deuchar, Muysken \& Wang (2007) yielded negative overall values for alternation, considerably below the corresponding values for insertion and congruent lexicalization, which may indicate that the selection criteria in Table 3 are inherently skewed to disfavor alternation.

[^12]:    ${ }^{26}$ The Italian verb for 'take' is prendere, with irregular preterites such as the first-person singular presi. The normal first-person singular preterite ending for a first-conjugation verb in -are, corresponding to Spanish -ar (as in agarrar 'to grab') is -ai, the morpheme added to the Spanish root agarr- in this example.
    ${ }^{27}$ The Italian partitive clitic ne has no corresponding form in Spanish, and must be translated by circumlocutions such as de eso 'about that.'
    ${ }^{28}$ Since English does not use object clitics, such mixed combinations are not found in the Sabine River Spanish-English corpus. European Portuguese does employ object clitics that are morphologically similar to their Spanish counterparts (although with somewhat different syntactic patterns), but in vernacular Brazilian Portuguese object clitics have been supplanted by disjunctive object pronouns.

[^13]:    ${ }^{29}$ Similar cases can sometimes be observed in foreign language classrooms (in the United States, at least), for example when non-fluent students are divided into small groups and instructed to "converse" with one another in the target language, or when they become flustered during oral examinations.

