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Sippola, Eeva

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MULTILINGUALISM AND THE STRUCTURE OF CODE-MIXING

Eeva Sippola

University of Helsinki

1. INTRODUCTION

This chapter examines code-mixing from a structural perspective in multilingual settings. Code-mixing is here understood as the mixing of two or more varieties in the same utterance. It may happen between two distinct languages as well as between dialects, registers, or styles. Code-mixing has mostly been studied in spoken contexts, but more recently, also in written texts (e.g. Sebba et al. 2012).

Multilingualism is a prerequisite for code-mixing, as speakers need to be able to access several repertoires in order to create mixed codes. There are different levels and types of language mixing, from borrowing in relatively monolingual contexts to code-mixing that is produced by fluent bilinguals and to stable mixed languages. These reflect different strategies and communicative purposes, resulting in a variety of structural outcomes (Matras 2009). The aim of this chapter is to give an overview of the structural patterns of code-mixing with examples from different multilingual settings around the world.

The terms code-mixing and codeswitching are often used interchangeably, especially when the formal, grammatical, and lexical properties of codes drawing from several languages are under study. Muysken (2000: 1) uses code-mixing to refer to cases that show evidence of morpho-syntactic and/or lexical material from two different languages in one sentence. By itself, this definition excludes the important domains of semantic, structural, and phonological interference also found in contact settings. Codeswitching, on the other hand, is used “for the rapid succession of several languages in a single speech event” (Muysken 2000: 1), and understood mainly as taking

place across sentences or clause boundaries. Much of the research on codeswitching, however, uses the term in a general sense, overlapping with the definition of code-mixing used in this chapter. Generally speaking, situational or domain-based codeswitching means that speakers choose a specific code according to the situation or context they happen to be in, while addressee-based codeswitching has to do with who the speaker is talking to. In addition, identity, group belonging, etc. can have an effect on the choice of the codes and/or switching between them.

As circumstances and motivations for multilingualism and code-mixing vary greatly around the world, code-mixing practices have to be contextualised historically and socially, while also taking into consideration the properties of the languages in contact. Consider, for example, European settings where long-term bilingualism is the norm and supported by state policies, such as Belgium (French-Dutch), Finland (Finnish-Swedish), and Switzerland (German-French-Italian-Romansh). In Africa, Asia, and Latin America, colonial languages are often used as official languages and co-exist with local, indigenous languages. In addition, many migrant groups in Europe and the Americas are bilingual in their heritage language and the language of their new environment. However, mixing can also happen at a dialectal level or on a creole-lexifier continuum. Speakers of dialects often have access to a standard code to varying degrees, resulting in bidialectalism, as for example in German-speaking countries or in Italy. Similarly, in many creole contexts, such as in the Caribbean, creole speakers use the lexifier in many language domains. In these varied and at times complex sociolinguistic settings, speakers have different attitudinal and ideological positions that might influence the meaning-making processes in code-mixing. In some communities, most speakers are bilingual and mix codes frequently, so that it is a normal mode of discourse; in others, code-mixing is used only in specific contexts for conveying special communicative meanings. Finally, code-mixing differs significantly from diglossic situations where languages or varieties are functionally compartmentalised into different social

domains. While in diglossia language selection is determined by community norms, code-mixing is an individual phenomenon at the level of the speaker (Bullock & Toribio 2009: 6).

Other terms and concepts related to code-mixing are borrowing, mixed languages, slangs and jargons, and L1 transfer in second language acquisition (SLA). These differ from code-mixing not so much at the level of contact processes, but in what perspective we take on the language system and the role of the input and target languages. Borrowing is an outcome of code-mixing at the level of the language system (cf. section 3). Mixed languages (as well as pidgins and creoles) are stable codes, while code-mixing is a situational practice (cf. section 5). Likewise, slangs and jargons often show processes that overlap with code-mixing, but their input is mainly lexical and comes from several languages.¹ Transfer in SLA can be similar to code-mixing in some ways; in SLA, however, the aim is to reach a target language at the individual level, while the mixed code is a target on its own.

2. CODE-MIXING RESEARCH & CRITICAL ISSUES OVER TIME

Code-mixing was recognised as a common way of speaking in bilingual communities in studies from the 1960s onward (e.g. Gumperz 1964, Clyne 1967). Since then, code-mixing research has grown into its own subfield of linguistics, which includes various perspectives and methodologies (cf. Gardner-Chloros 2009: 10). In the sociolinguistic tradition, the general focus is on investigating the functional and social motivations for why speakers switch between languages, usually in full clauses or larger grammatical constructions (e.g. Gumperz 1982; Heller 1988; Stell & Yakpo 2015). Work in the pragmatic tradition generally relies on identifying the meanings brought about by codeswitching in conversations (e.g. Auer 1995). There is also a grammatical tradition (e.g. Poplack 1980; Muysken 2000; Myers-Scotton 2002) of examining the combinations and constraints in code-mixing and the rules that motivate their occurrence. Finally, the psycholinguistic tradition, often

using experimental methods, addresses how bilingual mixed data is stored and accessed in the cognitive system (cf. Kootstra 2015). These traditions have followed largely separate ways, although the need for holistic insights and research has been articulated (e.g. Gardner-Chloros 2009; Backus 2015).

Early studies on code-mixing focused on proving the non-randomness of the of code-switched utterances by proposing grammatical constraints that could be empirically tested on a number of language situations (e.g. Timm 1975; Poplack 1980; Sankoff & Poplack 1981) or by using theoretical syntactic principles to explain code-mixing data (e.g. DiSciullo et al. 1986). In the 1990s, the Matrix Language Frame model (Myers-Scotton 1993; 2002) became a prominent framework for studying code-switching. Based on formalist principles, the linguistic components in code-mixing are divided between a Matrix Language (ML) responsible for the grammar and system morphemes and an Embedded Language (EL) representing the lexicon, and predictions about the switching points are made. The MLF model has seen several further developments (e.g., the Four-Morpheme Model of morpheme classification; Myers-Scotton & Jake 2009). Although this approach has been criticised due to its rigid formalist principles and divisions, it brought the study of code-mixing to a deeper explanatory level, connecting structural approaches to psycholinguistic and sociolinguistic ones (Muysken 2000: 18). It still remains an influential paradigm in the study of code-mixing.

The predictive power of these approaches has been challenged over the years by providing evidence of violations to the constraints and principles proposed based on individual case-studies. It has become evident that code-mixing outcomes can differ in systematic ways depending on the setting they occur in, leading towards the development of a typology of code-switching. Muysken (2000) identified three distinct patterns of mixing: insertion of material from an L2 into an L1 base language, alternation between two codes, and congruent lexicalization of codes into a shared structure. A fourth strategy, backflagging, where L1 material is inserted into an L2 base language,

was later added to the model (Muysken 2013a). These strategies show that different types of lexical and structural mixing are affected by typological distance, the properties of the languages involved, and sociolinguistic factors (see section 4).

Issues of the competence of individual speakers, typological differences, and sociolinguistic parameters are of central importance for the explanations of code-mixing phenomena at the structural level (cf. Gardner-Chloros 2009: 91). For example, Matras (2009) offered an integrated, functional approach that combines language processing requirements, communication goals, and community-level practices. In addition, there are probabilistic approaches based on the idea that language practices shape code-mixing. Such studies are based on the variationist framework (e.g. Poplack & Dion 2012; Torres Cacoullos & Travis 2015; 2016) or usage-based approaches (e.g. Croft 2003; Backus 2015). In the usage-based approaches, the integration of code-switching into a given base language is identifiable on the basis of frequencies of occurrence and speakers' acceptability judgements. They try to answer questions about the motivations for code-mixing through selection (i.e., how a change initiates and is propagated) and entrenchment (i.e., how far along the change is). Experimental and computational methods for studying code-mixing have also gained attention in the field (cf. Gullberg et al. 2009; Toribio 2017).

Case studies and more theoretical accounts have been published about code-mixing, involving a number of language pairs, speaker types, and sociolinguistic settings. Over the decades, it has become clear that code-mixing does not occur randomly but rather follows regular patterns and occurs at specific switching points. The different linguistic levels where mixing occurs, as well as its different contextual motivations and communicative purposes, are also largely acknowledged. However, there is less agreement as to the general properties of the process, and none of these structural or explanatory models has received universal acceptance. Different approaches highlight different explanations, based on sociolinguistic, typological, pragmatic, and cognitive factors.

3. HEAVY BORROWING AND CODE-MIXING

One prominent view sees code-mixing on a diachronic continuum with respect to borrowing and convergence, where loans into one language start off as synchronic code-mixes that gradually, through diachronic change, become established as part of the system. The degree of integration of an item into a linguistic system, and the fact that borrowings start with bilingual speakers but are later used also by monolinguals within the recipient language's system, often differentiate code-mixing from borrowing. Code-mixing usually takes the form of overt, unintegrated elements from different language varieties, while borrowing is usually integrated into the recipient linguistic system, thus extending the vocabulary with new items. In code-mixing, inserting elements into a clause often has a symbolic function, e.g., expressing a culturally mixed identity (Muysken 2000: 69).

An interesting case is presented by languages that show heavy borrowing, i.e. structures that somehow resemble code-mixing due to the great number of borrowed items that have been incorporated into the language. Languages that present heavy borrowing, and are occasionally miscategorised as mixed (Bakker 2003: 121), include Chamorro (e.g. Stolz 2003), Maltese (Drewes 1994; Stolz 2003), Spanish-influenced Quechua (Hout & Muysken 1994), and Tetun Dili (Williams-van Klinken et al. 2002; Hajek 2006).

Chamorro, spoken in the Marianas, underwent three centuries of intense colonial contact with Spanish. These languages coexisted in a diglossic situation, and at least part of the population was bilingual in the indigenous language and Spanish (Rodríguez-Ponga 2009). As a result, about 55% of the Chamorro lexicon is derived from Spanish (Stolz 2003: 290), although the figures might differ according to text type.

1. Chamorro (Stolz 2003: 278)

Ya kada man-risibi yu' siempre kada simânanuebu magaga=hu
and each INDEF.O-get 1SG.ABS FUT each week new dress=PSR.1SG

‘And every time I get paid I’ll have a new outfit every week.’

In (1), the underlined portions show that the majority of the lexical matter is derived from Spanish. Not only nouns but also other types of content words have been borrowed into Chamorro. The meanings and functions are relatively close to the original Spanish, although the items follow Chamorro inflection and generally conform to Chamorro phonology (Stolz 2003: 279). In addition, functional elements were borrowed from Spanish into Chamorro. These include conjunctions, the comparative and superlative markers, the indefinite article, pronouns, grammatical gender marking, the habitual past marker, and the irrealis and future markers, such as *siempre* in (1) (Bowen 1971; Pagel 2010: 146-147). These borrowings can be considered to be part of the more core areas of grammar than lexical borrowings. However, the degree of mixing is not significant enough to have transformed the basic structures of the language: the Hispanization of the grammar affected mostly optional elements, and Chamorro’s grammatical system remains essentially Austronesian (Stolz 2003: 288).

Similarly, Tetun Dili, a lingua franca spoken in East Timor, presents massive lexical borrowing from Portuguese, the co-official language of the country. Many Tetun Dili speakers are multilingual in local languages and Portuguese (Hajek 2006: 166-167). The frequency of Portuguese loans is estimated at more than 60% in complex, high-level documents, such as the country’s constitution, while in spoken discourse, the numbers are at most 30% (Hajek 2006: 169). In (2), the forms and meanings for *servisu* ‘to work’ (appearing as part of a nominal compound with *nain* ‘master’ to mean ‘hard worker’), the adverbial negator *nunka* ‘never’, and the verb *deskansa* ‘to rest’ are borrowings from Portuguese.

2. Tetun Dili (Williams-van Klinken et al. 2002: 88)

Servisu nain né nunka deskansa

work master this never rest

‘This diligent worker never rests.’

The borrowed elements include vocabulary items, especially in the formal registers, and also phrases with full Portuguese grammatical agreement (e.g. *primeira klase* ‘grade one’), large numbers, greetings, and idioms (e.g. *sentidus pézames* ‘I’m sorry for your loss’). However, beyond these cases, Tetun Dili is resistant to morphological borrowing, and generally it is mainly the Portuguese lexical items that are affected by borrowed functional elements (Hajek 2006: 173). Morphology can be taken as a defining factor for establishing the genetic affiliation of the language, thus placing Tetun Dili firmly in the Austronesian family tree.

In both Chamorro and Tetun Dili, the historical situations of contact and bilingualism motivated extensive mixing practices in the past, which over time have converted into borrowings. In the case of Chamorro, the bilingualism was not extensive (or meaningful) enough to secure the maintenance of Spanish in the Chamorro community after the colonial period, beyond the Spanish component that was integrated into the Chamorro language as borrowings. Although showing heavy borrowing from Portuguese, Tetun Dili is also clearly Austronesian in its structure and affiliation. The situation differs from Chamorro, however, in that Portuguese is still used among certain social groups, meaning that code-mixing processes may still be ongoing, although such practices still need to be confirmed and analysed in future studies.

4. TYPES OF STRUCTURAL MIXING

The following formal properties of different types of code-mixing strategies and the social conditions of the multilingual settings where these emerge are presented in this section: insertional and alternational code-mixing, congruent lexicalization, and back-flagging (Muysken 2000; 2013a).

4.1 Insertional code-mixing

In insertional code-mixing, one language determines the overall structure into which constituents from another language are inserted. Categorical or semantic congruence, or equivalence between the inserted element and the properties of the slot into which it is inserted, constrain the process (Muysken 2000: 95, 230). For insertional mixing, it is common for the inserted elements to be single constituents or fixed phrases, nested in a grammatical structure of the other code, often selected elements, such as objects or complements instead of adjuncts, and often morphologically integrated if the recipient language's typology requires it (Muysken 2000: 64). Insertional code-mixing regularly occurs in asymmetric situations where speakers are more proficient in one of the languages, such as with heritage languages or (post)colonial linguistic settings (Gardner-Chloros 2009: 106).

In (3), which comes from a heritage language situation, Turkish-Dutch mixing has Turkish as the grammatical base language. The content morphemes are from Dutch, and they are morphologically integrated into the Turkish sentence with the adjectival markers *-li* and *-lu*.

3. Turkish-Dutch (Backus 1996: 102)

şöyle hoek-li, schuin vorm-lu

such corner-ADJ slanted shape-ADJ

‘With a corner like this, with a slanted shape’

In (4), the inserted Spanish element is nested in a Quechua structure, where the locative expression ‘there’ and the verb ‘we arrive’ belong to the same clause. The colonial language and the indigenous language are spoken in Bolivia, in a postcolonial situation with asymmetric power relations.

4. Bolivian Quechua – Spanish (Muysken 2000: 63)

Chay-ta las dos de la noche-ta chaya-mu-yku.

that-AC the two of the night-AC arrive-CIS-1PL

‘There at two in the morning we arrive.’

Material from one language is inserted into the structure of the base language. However, it is often hard to determine which language is the base, and different criteria may be applied, ranging from discourse factors to morpheme counting, the code of the main verb, governing models, etc.

(Muysken 2000: 64-68). These have specific challenges and have to be carefully defined case by case, for example, by examining the main language of the conversation for the discourse factor, or by focusing on selected elements of the clause and their properties for more structural-functional and quantitative approaches. As to the challenges, one should keep in mind that the criterion of morpheme counting, for example, is heavily dependent on the typology of the languages involved. Naturally, highly isolating or analytic languages will get a lower morpheme count than synthetic languages showing inflection. Similarly, although the functions of the main verb of the clause in assigning the semantic roles and determining the state or event are prominent, it should be kept in mind that verbs can be borrowed and inserted into a structure with the recipient language’s functional morphemes. In addition, because many bilingual communities are experiencing rapid social and linguistic changes, the base language is not necessarily always the same for the whole community but can vary according to various extralinguistic factors.

4.2 Alternational code-mixing

The second code-mixing type is alternation. In this type, different languages occur alternately, each with its own structure, with the switch point being located at a major syntactic boundary. Several constituents are switched in non-nested mixing, where there is no structural relation between the sequences. Furthermore, the switches are often long and complex (Muysken 2000: 96-97). At exactly which point an alternation takes place is governed by both grammatical constraints and interactional principles. A well-known example in (5) shows how the speaker starts a sentence in English and switches to Spanish at the adjoining conjunction *y* ‘and’, mixing long stretches of English and Spanish. Each language stretch has its own language-specific syntax and morphology, with neither language providing an overall structural frame for the utterance.

5. English-Spanish code-switching (Poplack 1980: 594)

Sometimes I'll start a sentence in Spanish y termino en español.

and finish in Spanish

Alternation is typical of stable bilingual communities (Gardner-Chloros 2009: 106). In the Puerto Rican community studied by Poplack (1980), the close contacts with Puerto Rico and a back-and-forth pattern of migration between Puerto Rico and the United States have created a situation where Spanish is maintained as a ‘mother tongue’ alongside English, the language of the receiving society. The community did not shift towards English but showed stable bilingual language use until the third generation.ⁱⁱ

Clause-peripheral elements, such as adverbial phrases and dislocated constituents, are frequently involved in alternational patterns (Muysken 2000: 230), as in the code-mixing between the Australian Aboriginal language Gurindji and the creole language Kriol in the 1970s, which later

gave rise to a stable mixed code (see section 5). In (6), a dislocated dative-marked nominal adjunct is co-referenced with a pronoun, while in (7), the adverbial demonstrative *kuya* is switched.

6. Gurindji-Kriol (Meakins 2011: 133)

gib-it langa im murlu-wu Malingu-wu

give-TR LOC 3SG this-DAT NAME-DAT

‘Give it to this to Malingu.’

7. Gurindji-Kriol (Meakins 2011: 134)

put-im-dan kuya na, Jampin

put-TR-down thus FOC KINSHIP.TERM

‘Put it down like this, Jampin.’

Alternational switches are also often flagged with correction and self-repair (Muysken 2000: 102), as in (8), where the hesitation particle *eh* marks the switch from French to Dutch.

8. Brussels Dutch -French (Treffers-Daller 1994: 209)

Et comme ça on est bien eh perfect tweetalig.

and like that one is really H perfect bilingual

‘And like that one is really eh/perfectly bilingual.’

Discourse marker switching is often very similar to alternation, as discourse markers are seen as pertaining to the periphery of the clause. In (9), a Basque speaker mentions the incorrectness of code-switching and, while doing so, accidentally introduces the Spanish discourse

markers *hombre* ‘well’ and *o sea* ‘I mean’. The discourse markers appear in an otherwise flowing Basque turn.

9. Basque-Spanish (Lantto 2015: 757)

Hombre jatorra da erabiltzea euskarak berez dituen
well good.DET COP.3SG use.NOM.DET Basque.ERG itself.INST AUX.POSS
esamoldeak. O sea, adibidez O sea hori ez esatea.
expression.PL I.mean example.INSTR I.mean that NEG say.NOM.DET
‘Well the good way is to use the expressions that are originally Basque. I mean, for
example, not to say that “I mean”.’

4.3 Congruent lexicalization

In congruent lexicalization (Muysken 2000: 122), two languages share the grammatical structure, either fully or partially. The lexical items come from different languages and are selected seemingly randomly, and the languages are assumed to partly share their processing systems. There is no dominant base language, and back-and-forth switches are frequent. Switching of selected elements, such as prepositions and objects, is typical because the governing elements and their restrictions are largely shared between the languages (Muysken 2000: 132).

This type of codeswitching tends to occur between typologically and lexically similar languages, for example, between a dialect and a standard. However, similarity between languages can also take other forms. For example, with English and Dutch, only lexical congruence takes place, since the lexicon is relatively similar but the grammatical structure differs (e.g., word order). In the case of English and Spanish mixing, the lexicons differ but the overall linear equivalence is similar enough for lexical congruence to happen (Muysken 2000: 146). Congruent lexicalization

accommodates much of the problematic code-switching data that ‘all-or-none’ structural models stumbled over because the similarities can occur at various structural and lexical levels.

Sociolinguistically speaking, it is typical for congruent lexicalization to involve languages of roughly equal prestige, or to occur when there is no tradition of overt language separation. Creole continuum situations frequently present congruent lexicalization. In (10), code-mixing between Nigerian Pidgin and English shows that because the forms are often very close to each other, it is occasionally difficult to distinguish between the languages. Nigerian Pidgin is spoken by several million people across southern Nigeria and in urban areas throughout the country. Some of its L2 varieties are heavily influenced by its lexifier, English, the official language of the country. As the languages or codes in contact can be very similar or even identical, homophonous diamorphs, i.e. morphological elements equal in their phonological shape, and morphological integration are other features that often characterise congruent lexicalization (Muysken 2000: 133-134). This means that there can be significant numbers of intermediate forms that mix material from both codes.

10. English – Nigerian Pidgin (Agbo & Plag forthcoming)

I'm sure say na the guy spoil that room

I'm sure COMPOC the guy spoil.PST that room

‘I am sure that it's the guy who ruined that room’

Congruent lexicalization is also found in the mixing of Afrikaans (or Cape Dutch) and Dutch in the letters of the early 20th century in (11). Afrikaans replaced standard Dutch in South Africa at the turn of the 20th century, and it was fully standardised within a short time span (it is one of the few contact languages to have done so). Writing in Afrikaans was nevertheless variable, and the data presents several code-mixing practices with Dutch (Deumert 2004).

11. Dutch - Afrikaans (Deumert 2004: 256)

zaterdag heeft ons bazaar [,] dan ver wacht wij veel mensen [,] zij hebben mos een plan om hier een ge meenten te stigt [,] maar of sij het zal regcht krijgen weet ik niet

‘we are having a bazaar on Saturday, then we expect many people. They have indeed a plan to establish a congregation here, but I don’t know if they will get this right.’

In addition, second-generation migrant groups also typically show congruent lexicalization, such as Spanish-English bilinguals in certain communities in the US, as in (12). Here, the switch boundaries do not always correspond to the clause boundaries, but the overall structure of each language is similar enough for these elements to appear in rapid succession.

12. English-Spanish (Poplack 1980: 589)

Why make Carol sentarse atrás pa’ que everybody has to move

sit.REFL at-back so that

pa’ que se salga?

for that REFL get.out.SBJV

‘Why make Carol sit in the back so that everybody has to move for her to get out?’

Mixed collocations and idioms also appear in congruent lexicalization, as in (13), where the content words are Dutch, and the frame and function words are Sranan, or in verb + noun collocations such as *gi voorlichting* ‘to give information’ or *taki lering* ‘to learn a lesson’, where a Sranan verb is combined with a Dutch noun (Muysken 2000: 141).

13. Dutch-Sranan (Bolle 1994: 97)

mi o pak a draad op

I FUT pick the thread up

‘I will take over.’

4.4 Back-flagging

Back-flagging is the insertion of heritage language elements into the majority language (Muysken 2013a). In back-flagging, the grammatical and lexical properties of the language that the speakers have shifted to form the base language of the clause. Flagging elements from the original community language are inserted into this frame. The elements can be, for example, discourse markers, greetings, kinship terms, or other elements that are connected with the heritage identity of the community. The elements are normally clause-peripheral, single items that are simple and frequent (Muysken 2013a: 713).

In (14), from a Cajun novel from Louisiana, the elements *grand-père* ‘grandfather’, *comment ça va* ‘how is it going’ and *ça va* ‘it’s ok’ are from the heritage language, French, and the greetings are inserted at the periphery of the English utterance. The Cajun French community has mainly shifted to English.

14. English-French in Louisiana (Gautreaux 1998: 10, cited in DuBois & Horvath 2002: 276)

In a minute his grand-père appeared in the open door....

grandfather

“Hey boy. Comment ça va?”

How is it going?

“Ça va. Why don’t you rewire this place and get some regular light switches?”

‘It’s okay.’

In (15), from Metro Manila, Philippines, where English prevails in certain social groups and domains, the Tagalog discourse marker *na* ‘already’ appears at the right periphery of the English clause. The main language of Metro Manila is Tagalog, but in some contexts, similarly to a heritage language, it serves to express local identities.

15. English-Tagalog (Bautista 2004: 230)

After my meeting, I'll go home na.

already

Many similar cases are found in multiethnolects in urban contexts in Europe. However, the identities associated with certain items have transcended the original ethnic connotations and moved towards more mixed identities and social affiliations.

5. STRATEGIES AND CONSTRAINTS FOR CODE-MIXING

The code-mixing patterns presented in section 4 occur in different multilingual settings, involve several strategies for combining material from different codes, and differ in how the base language is determined, as shown in the overview in Table 1. Different combinations of these factors favour particular mixing patterns but do not exclude the use of others (Muysken 2013a: 714).

Table 1. Sociolinguistic factors and strategies in code-mixing (adapted from Muysken 2013a: 720)

<i>Code-mixing pattern</i>	<i>Sociolinguistic factors</i>	<i>Proficiency</i>	<i>Strategies</i>
<i>Insertion</i>	Asymmetric power relations, postcolonial settings	Low proficiency	L1 as the base language

<i>Alternation</i>	Political competition	High bilingual proficiency	Universal principles for combinations
<i>Congruent lexicalization</i>	Relaxed language norms, closely-knit network, long contact	High bilingual proficiency	Shared properties of L1 and L2
<i>Back-flagging</i>	Language shift in second or third generation	High proficiency in L2	L2 as the base language

Beyond these extralinguistically defined factors, typological similarity and grammatical factors also influence mixing patterns. Although almost anything can be mixed, some items are more easily prone to mixing, and certain structural and categorical constraints favour or disfavour it. For example, function words are not easily switched, because languages show considerable variation in this class of words, and thus less categorical equivalence that would allow for switching them. In addition, they score low on the specificity scale (Matras 2009: 133-134).

Matras (2009: 133) presents an overview of different hierarchies that have been proposed in the code-mixing literature for different language pairs. As a general outcome, it is clear that nouns rank high on these hierarchies, while pronouns rank low. This can be explained by the fact that nouns, which belong to an open word class, are less tightly integrated into grammatical subsystems than functional items, thus making them more accessible for borrowing and code-mixing (cf. Winford 2003: 51). Similarly, Backus (1996) identified specificity and awareness as factors promoting insertional switches. Specificity is typical of unique referents, such as nouns, and thus supports the high placing of nouns in mixing hierarchies. Awareness, on the other hand, relates to words with more transparent meanings. New products and concepts expressed by nouns are also easily transferable, while pronouns often do not fill a lexical gap and are rarely associated with a specific context of interaction, and thus present little semantic motivation for switching to the other code (Matras 2009: 134). According to Matras (2009: 134-136), other categories are more difficult

to rank in the hierarchy in relation to each other, and their availability for switching probably depends on both language-dependant structural aspects and functional motivations. For example, the placement of verbs on the hierarchies shows considerable variation. This can be explained by the fact that a verb's structural complexity is highly language dependent. From a functional perspective, the predication sets the base language for the mixed code, and different strategies for integrating verbs depend on the languages participating in code-mixing and the strategies available in the speech community, i.e. the creativity that speakers have to use their multilingual repertoire in mixing situations.

6. MIXED LANGUAGES

6.1 Code-mixing and mixed languages

The code-mixing patterns discussed so far are common in multilingual settings, but they are generally not stable varieties. Mixed languages, on the other hand, are stable varieties that form a subclass of contact languages. They result from the fusion of two or more identifiable sources and present a split in the sources of their morphemes, which remains visible in their synchronic make-up. These splits can challenge theories of genetic classification and contact-induced change.

The category of 'mixed languages' presents considerable typological variation that cannot be predicted from the sociohistorical contexts in which they emerged or continue to be spoken in (Matras 2000). Mixed languages range from varieties that display primarily lexical mixing, such as Angloromani, Ma'á, and Media Lengua, to languages that have significant amounts of structural resources from two languages, such as Michif, Gurindji Kriol, and Light Warlpiri (Meakins 2013b: 164-165). The mixing of structural resources can also vary, from relatively clear splits to more complicated patterns (Bakker 2017). So far, around forty languages from diverse backgrounds have been identified as "mixed" (Meakins 2013b).

Code-mixing has been proposed to be an early stage of mixed language formation (Auer 1999; 2014; Croft 2003; Myers-Scotton 2003; Meakins 2011), although not all experts agree with this view (Bakker 2003). Well-known cases where the path from code-mixing to a stable mixed language has been documented are Gurindji Kriol (McConvell & Meakins 2005) and Light Warlpiri (O’Shannessy 2011). In these cases, young speakers stabilised their parent’s code-mixing of Kriol with Gurindji and Warlpiri, respectively. However, the origins of most mixed languages are not well understood, and whether code-mixing lies at their source remains an issue of debate.

There is a general consensus that a severe social upheaval is an important factor in the formation of mixed languages. They typically emerge in situations of community bilingualism and in relation to the expression of identity, reflecting either a new social category or an ancestral group membership, often as a conscious linguistic operation led by a group of speakers. The roles of the different languages that participate in their formation are sociolinguistically diverse, ranging from limited presence in the community to full bilingualism, and from language shift to language maintenance situations (see Table 2).

Table 2. Sociolinguistic factors and strategies in mixed languages (adapted from Muysken 2013a: 720)

<i>Type of mixed language</i>	<i>Sociolinguistic factors</i>	<i>Strategies</i>
<i>L1-oriented mixed languages, e.g. Media Lengua</i>	Lexifier language with a very limited presence in the community	L1 base language
<i>Compromise mixed languages, e.g. Michif</i>	Bilingual settings with a clear division between the two languages	L1/L2 base language
<i>L2-oriented mixed languages, e.g. Gurindji Kriol</i>	‘New’ language provides essential components through language shift	L2 base language

6.2 Structural types of mixed languages

Mixed languages can be classified into *intertwined* languages, languages with a *mixed lexicon*, and *converted languages* (Bakker 2003; for further subclassifications, see Bakker 2017).

Intertwined languages have grammatical morphemes and general predication structure from one language, and stems or free lexical morphemes from another, thus showing similar patterns to insertional code-mixing (Bakker 2017: 229). Examples of this group include Grammar-Lexicon (G-L) languages, such as Bilingual Navajo (Schaengold 2004) and Media Lengua (16) (literally ‘half language’ or ‘halfway language’). Variation among intertwined languages is found mostly in the class of free grammatical morphemes, meaning that they do not all share exactly the same make-up or division between codes (Bakker 2003: 118; 2017).

Media Lengua has Spanish words inserted into Quechua grammar, as in (16), where the Spanish items are embedded in the Quechua morpho-syntactic frame. Virtually all Quechua roots in Media Lengua, including core vocabulary, have been replaced by Spanish words, which differentiates it from other varieties of Quechua that contain many Spanish words (Muysken 2013b). The word order is OV from Quechua, while Spanish is mostly described as an VO language. Media Lengua is used as the language of daily life in communities that are located between the Spanish-speaking and Quechua-speaking areas in Ecuador. It is the first language of its speakers, though they are shifting towards Spanish.

16. Media Lengua (Muysken 2013b: 145)

papa *frita-da-mi* *kiri-ni*
potato fried-ACC-AFF want-1SG
‘I want fried potatoes.’

In contrast to the intertwined languages, languages with a *mixed lexicon* have a split between the two codes in a Noun-Verb (N-V) dichotomy or another point of difference. Examples include Gurindji Kriol (17) and Michif (Bakker 1997; 2013), among others.

Gurindji Kriol is a mixture of Gurindji, a Pama-Nyungan language, and Kriol, an English-lexified creole language. It represents an attempt to preserve the ancestral language while under the pressure of shifting to Kriol (Meakins 2013b: 174). The verbal grammar is from Kriol, while Gurindji supplies most of the nominal structure, as in (17). In this clause, we find nouns both from Gurindji and Kriol, while the verb phrase *git bait* ‘get bitten’, which shows the loss of the transitive marker from the main verb, is from Kriol. The agent also loses ergative case marking as an adjunct and acquires ablative case instead.

17. Gurindji Kriol (Meakins 2013a: 135)

Man i _____ bin git bait warlaku-nginyi watan-ta.

man 3SG.SBJ PST get bite dog-ABL hand-LOC

‘The man got bitten by a dog on the hand.’

It is relatively easy to identify the source languages of the lexical and grammatical items in Gurindji Kriol. However, Gurindji Kriol does not simply reproduce the features of the source languages, but shows innovative uses. For example, ergative marking is obligatory in Gurindji, but optional in Gurindji Kriol, because the main means of marking arguments is word order, as in Kriol. The ergative marker has acquired new functions in Gurindji Kriol, where it now marks prominence and agentivity (Meakins 2013b: 175).

The group of *converted languages* (also sometimes called form-structure [F-S] or frame-roots [F-R] mixed languages) can be further added to this structural classification. In place of a G-L split, these languages draw the general frame (word order, general typology, morpheme functions) from

one language, and the roots come from another. Some languages of this type include Sri Lanka Malay (Nordhoff 2009) and Wutun (Sandman 2016) (Bakker 2017: 222).

Wutun is spoken in Qinghai Province in China by a minority group which is bilingual in Amdo Tibetan and also self-identifies as Tibetan. Its lexicon and morphemes derive mainly from Mandarin Chinese, while the structure is largely Amdo Tibetan and Bonan (Sandman 2016: 2-3). Example (18) shows clausal converb structures typical of Amdo Tibetan. The verb is nominalised by means of the nominaliser *de*, together with the use of the comitative-instrumental case marker - *liangge*:

18. Wutun (Sandman forthcoming)

dak jhan-lio-de-liangge

tiger see-PFV-NMLZ-SOC

ren yidaze haipa-gu-liao ze-li

person all (be) afraid-COMPL-PFV EXEC-SEN.INF

‘Because of seeing a tiger, all the people were frightened.’

7. CONCLUDING REMARKS

Code-mixing patterns are determined by both structural and extralinguistic factors that constrain the mixing process in diverse multilingual settings. The relationship between code-mixing and borrowing can be understood as a matter of perspective, where the latter could be seen as a diachronic outcome of the former, but both are still conditioned by the same factors that affect language contact in general. The role of code-mixing as a stage leading towards a stable mixed language is uncontroversial for some languages, while it is disputed for others. In general, studies

on code-mixing shed light on contact patterns and the extralinguistic factors that condition them on a more general level, adding to our understanding of the mechanisms of language contact and the origins of new languages.

FURTHER READING

Gardner-Chloros, Penelope. 2009. *Code-switching*. Cambridge: Cambridge University Press.

This book introduces students to code-switching (CS) and the different ways it is understood and operationalised in different research traditions, such as structural linguistics, psycholinguistics, and sociolinguistics.

Matras, Yaron. 2009. *Language Contact*. Cambridge University Press.

This introduction to language contact explains the effects of multilingualism on society and language policy, as well as the consequences that long-term bilingualism within communities can have for the structure of languages. The book analyses phenomena such as language convergence, grammatical borrowing, code-mixing, and mixed languages.

Mazzoli, Maria & Eeva Sippola (eds.) forthcoming (2020). *New Perspectives on Mixed Languages: from Core to Fringe*. Berlin: De Gruyter.

This volume examines the current state of the debate on mixed languages and presents new advances from a diverse set of mixed language varieties. The contributions deal with different aspects of mixed languages, including descriptive approaches to their current status and origins, theoretical discussions on the language contact processes in them, and analysis of different types of language mixing practices.

Muysken, Pieter. 2000. *Bilingual Speech. A typology of code-mixing*. Cambridge: Cambridge University Press.

This book focuses on the grammar and structure of code-mixing, bringing together a variety of language pairs from different communities and social contexts. It presents in depth Muysken's three-way classification of code-mixing phenomena: insertion, alternation, and congruent lexicalization.

RELATED TOPICS

borrowing, transfer, interference, pragmatics in contact situations, multiethnolects, diglossia

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ABBREVIATIONS (not included in the Leipzig glossing rules)

AFF affirmative

CIS cislocative (near or toward the speaker)

EXEC executive auxiliary

H hesitation

SEN.INF sensory inferential

SOC sociative

ⁱ Examples of urban youth slangs include, e.g., Engsh and Sheng (Barasa & Mous 2017) or Old Helsinki Slang (Jarva & Mikkonen 2018).

ⁱⁱ For a different view on language shift among Puerto Ricans and other Spanish-speaking groups in the US, see e.g. Torres (2010).