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Maria Mazzoli and Eeva Sippola

Mixed languages: From core to fringe

1 Introduction

Mixed languages present an intriguing type of language contact. They arise in bilingual settings, often as markers of identity or as secret languages, and they combine parts from different language families or branches, showing unique splits that challenge theories of genetic classification and contact-induced change. Thomason and Kaufman (1988) identified mixed languages as a type of contact language in its own right, and since then, research on mixed languages has grown into a subfield of contact linguistics (Bakker and Mous 1994; Matras and Bakker 2003). So far, around forty languages from diverse backgrounds have been identified as “mixed” (Meakins 2013: 161–164). However, the status of many varieties is unclear. This volume examines the current state of the theoretical and empirical debate on mixed languages and presents new descriptive advances from a diverse set of mixed language varieties. These cover well-known mixed languages, such as Media Lengua, Michif, and Kallawaya, and varieties whose classification is still debated, such as Barranquenho, Cité Duits, Jopara, and Wutun.

Split ancestry, change by deliberation, bilingualism, stability as a language and the degree of mixing have been proposed as defining factors for mixed languages. However, the debate on the existence of the category of “mixed languages” still continues today and centers around two questions (Auer 2014; Versteegh 2017). Should mixed languages be seen as a distinct category of unmixed languages with types of mixing that differ from ordinary cases of borrowing? Or are they extreme cases on a continuum where mixed languages are at one end and ordinary borrowing is at the other? The distinctiveness take on these issues sees mixed languages as a distinct category with structural mixing patterns and social contexts that differ from code-switching or ordinary borrowing (Bakker 1997, 2003: 142). The continuum view (e.g. Auer 1999, 2014; Croft 2003; Myers-Scotton 2003; Meakins 2011) posits no clear boundary between mixed languages and other languages and sees the question of distinctiveness as an issue of gradience and conventionalization of code-switching patterns. Cases where the path from code-mixing to a stable mixed language has been

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documented are Gurindji Kriol (McConvell and Meakins 2005) and Light Warlpiri (O'Shannessy 2011).

A motivation for maintaining mixed languages as a typological category is that it captures some exceptional features of these languages, and therefore is of functional value for theories of language contact. Matras (2000, 2003) defined this exceptional character as the tendency for the new variety to acquire wholesale lexical items pertaining to a specific category (e.g. all stems, all nouns), and consequently, as the ability to borrow grammatical features otherwise highly resistant to borrowing, while Bakker (2003) places the emphasis on the quantity of borrowed items.

In this introduction, we want to clarify how to classify mixed languages within their category based on sociohistorical and typological definitions. We also want to explore how established cases differ from borderline cases, and how these differences inform the debate on gradience vs. distinctiveness. To answer these questions, we will offer an integrated typology of mixed languages based on sociohistorical and structural factors and present the issues that the chapters in this volume shed further light on. These include both structural and social factors conditioning mixing and cases at the fringe of the category of mixed languages, special cases of borrowing, and the mixing of closely related varieties.

2 Classification of mixed languages: Towards an integrated typology

2.1 Sociohistorical classification

Mixed languages are born in different sociohistorical circumstances. They are a product of the social situations of their speakers, and there is a general consensus that a severe social upheaval is an important factor in their formation. They typically emerge in situations of community bilingualism, for in-group communication 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. Children of mixed marriages (Bakker 1997, 2017; Croft 2000) are a special case where a new cultural and linguistic identity is born. In these cases, men from one linguistic and cultural group and women from another come together, and their children form their own distinct identity in the mixed language. A well-known case is that of Michif (Bakker 1997) where children of Canadian French-speaking men and Algonquian women

stabilized the mixed code. Another typical social situation is that of nomadic populations, where mixed languages are used to express a group feeling or an ethnic identity in special situations (Matras et al. 2007; Bakker 2017). In these cases, the mixed language rarely has full functional use, but is tightly connected to the language of the wider community. Recognized cases are those of the Para-Romani varieties.

Since information on the sociohistorical background of mixed languages has become more widely available, it became clear that there are two distinct groups of mixed languages. The first group is a result of (completed or interrupted) community *language shift* to a non-ancestral language,¹ as in the case of Angloromani, Ma'á, Oschideutsch, Mednyj Aleut, Gurindji Kriol, Old Helsinki Slang, and Light Warlpiri. In all these cases, the defining and diagnostic feature is that the language that the populations shifted to is the language providing the backbone structure, the matrix for the language mixing (Myers-Scotton 2002), also defined by Matras (2003) as the language providing the finite verbal inflection (INFL-language or predication grammar). In this group, the greater part of the lexicon, especially nominal, is provided by the heritage language of the community, or of a subgroup of the community. In these cases, the borrowing is happening from the ancestral language into the newly adopted language, although this may seem counterintuitive in some cases.

The second group includes languages that are the result of the *introduction of a non-ancestral language* into the repertoire of a community, but without a shift taking place, namely without the introduced language becoming the matrix language for the mixed variety. This is the case of Media Lengua, Michif, Bilingual Navajo, Okrika Igbo, and Kallawaya. In all these cases, the defining and diagnostic feature is that the language that provides the backbone structure is the ancestral language, while the bulk of the lexicon, especially nominal, comes from the introduced language. These cases where a non-ancestral language is introduced are similar to heavy borrowing. Clearly, languages with heavy borrowing are not the result of language shift, but rather of a contact situation where shift did not take place. For instance, in the case of Chamorro, the speakers borrowed elements of a colonial language into their Chamorro, and thus the language's structural profile has remained Austronesian while the Spanish (and today English) elements mostly concern items that have a prominent pragmatic role (e.g. Stolz 2003).

¹ There are different possible ways of defining the languages involved. These might highlight chronological differentiation (ancestral vs. introduced), identity aspects of the community or place (ethnic vs. non-ethnic; local vs. non-local), or language dominance at an individual or community level (L1 vs. L2).

These two sociohistorical profiles (“shift” and “massive introduction”) correspond to two different directionalities of the borrowing process with respect to the ancestral and non-ancestral languages. Also, when discussing different types of language shift, it is important to clarify that we are dealing with a continuum where the shift away from the ancestral language does not necessarily take place in the whole community. In fact, at a certain point in time, the community shift may take the form of frequent and increasingly conventionalized practices of code-switching. Taking another perspective, the shift can be seen as the introduction of a non-ancestral language from a synchronic, situated perspective (cf. Adamou, this volume). However, in reconstructing the sociohistorical background of an autonomous mixed language or for the purpose of interpreting the mixing processes that shaped its synchronic make-up, it should always be possible to determine whether or not a shift took place in the community, or at least what language the community adopted as a matrix for the mixed variety. It should also be possible to connect this piece of sociohistorical information with the observed structures of the mixed variety.

2.2 Structural classification

From the structural point of view, the languages that have been traditionally labeled as mixed present a typological variation that cannot be predicted from the sociohistorical contexts in which they emerged or continue to be spoken (Matras 2000). The structural classifications proposed by Bakker (2003, 2017) and Muysken (2008: 211–226) show as well that languages from both sociohistorical profiles conform to one general structural typology (cf. also Meakins and Stewart forthcoming). The structural typology differentiates two groups, (a) languages presenting a Grammar-Lexicon (G-L) split, also called a lexical/functional split or “intertwined” (Bakker 1994); and (b) mixed lexicon (with mixed structure) languages that present a variation of Noun-Verb (N-V) splits. We will now present the structural and sociohistorical profiles of four languages that serve as prototypical examples in our classification.

Mixed languages with a *G-L split* have grammatical morphemes and a general predication structure from one language, and stems or free lexical morphemes from a different language. Examples of this group include Ma’á and Angloromani pertaining to the socio-historical group of languages that have undergone shift, and Media Lengua and Bilingual Navajo from the group of massive introduction.

Ma’á is the language of the Ma’á or Mbugu people, in the Usambara mountains in Tanzania. Ma’á, also known as Inner Mbugu, is essentially a manipulated variety of Normal Mbugu, a Bantu language very similar to Pare. Mous (2003: 1)

considers Normal and Inner Mbugu to be one language with two parallel lexicons. The Ma'á or Mbugu people are culturally and physically different from the other Bantu populations of the region, as they are the descendants of a Southern Cushitic-speaking group who migrated to the Usambara mountains and shifted to a Bantu language (probably Pare). Ma'á uses a lexical reservoir from the ancestral Cushitic language, developed in order to reverse language shift and resist assimilation to the Bantu language. The mixed variety shows a grammar using Bantu patterns and matter (in boldface), while the lexical roots are mainly Southern Cushitic, with elements from Pare and some from Maasai. The lexical manipulation found in Ma'á is similar to that found in Angloromani and to that of many urban youth languages and jargons (e.g. Old Helsinki Slang).

- (1) *hé-ló mw-agirú é-sé-we kimwéri dilaó w-a* (Ma'á)
hé-na m-zima é-tang-we kimwéri m-fumwa w-a (Mbugu)
 16-have 1-elder 1-call-PST.PF Kimweri king 1-CON
yá i-dí l-á lusótó (Ma'á)
i-i i-sanga l-á lusótó (Mbugu)
 this 5-land 5-CON Lushoto
 'There was an elder called Kimweri, king of this land Lushoto' (Mous 2003: 9)

Media Lengua is spoken in Highland Ecuador. It probably arose in relation to an expression of hybrid identity as Indigenous populations did not fully identify with either their ancestral language, Quichua, nor the introduced language, Spanish. It was formed quickly and deliberately by Quichua-Spanish bilinguals. Today, it is spoken by bilinguals alongside Quichua and/or Spanish. Media Lengua's make-up is rather unique: it reproduces the structure of the ancestral language and makes use of Quichua's bound functional morphemes (in boldface), over 90% of its lexical roots are from the introduced language Spanish.

- (2) *Mujer-ka maderata casa-man lleva-n* (Media Lengua)
Warmi-ka kaspi-ta wasi-man apa-n (Quichua)
 woman-TOP wood-ACC house-to take-3SG
La mujer lleva la madera a casa. (Spanish)
 'The woman is carrying the wood home' (Deibel, this volume)

In comparison, languages with a mixed lexicon present a *N-V split* or other structural dichotomies. Examples include Mednyj Aleut and Gurindji Kriol (3) from the socio-historical group of languages that have undergone shift, and Okrika-Igbo and Michif (4) from the group of massive introduction.

Gurindji Kriol in northern Australia originated from contact between Aboriginal Gurindji people and new settlers. The mixed language represents an attempt to maintain an ancestral language under severe cultural pressure from Kriol, given that most Aboriginal groups in the region have completely shifted to Kriol. Gurindji Kriol arose from the crystallization of code-switching insertional practices of ancestral Gurindji noun phrases in a predication structure based on Kriol, the introduced language. One original feature of Gurindji Kriol is the productivity of both the Kriol-derived verbal morphology and the Gurindji-based nominal morphology. In (3), the Gurindji ergative marker *-tu* combines with an English noun, and TMA markers of Kriol origin combine with a lexical verb of Gurindji origin, which are both rather common possibilities in the language.

- (3) *man(-tu) i bin jarrwaj (im) dat guana karnti-yawung*
 man-ERG 3SG PST spear 3SG the goanna stick-PROP
 ‘the man speared the goanna with a stick’ (Meakins and O’Shannessy 2010: 1697)

Michif is also a N-V mixed language with a mixed grammar. It has its roots in the mixed marriages between Indigenous women that were speakers of Algonquian languages and French-Canadian fur traders. Notwithstanding the European ancestry, the Metis communities identified as Indigenous. The mixed variety emerged as an affirmation of original identity and power, during the long political struggle between the Indigenous populations of the North American Plains and the British/Canadian settlers. Today Michif is spoken as an autonomous language, and most of its speakers are not fluent in either Metis French or Cree. The following example of Michif illustrates a prototypical N-V mixed language, where the complex noun phrases from the introduced language Metis French are inserted into the structure derived from the ancestral language Plains Cree (in boldface):

- (4) *Maaka li darie zhornii, anima la*
 but DEF.M.SG last day.M.INAN that.INAN DEF.F.SG
maezooñ kaa-kii-li-rent-ii-yaan, ma klee
 house.F.INAN CNJ-PST-the-rent-AI-CNJ.1S POSS key.F.INAN
gii-doo-meek-in kiihtwam
 1.PST-go-give.AI-IND.1SG again
 ‘But the last day, that house I rented, I went there again to give back my key’ (Mazzoli 2019: 113)

2.3 An integrated typology

The combined sociohistorical and structural classification can be represented as a four-cell table (Table 1) that corresponds to the classification proposed by Muysken (2008: 212). The presence of prototypical cases defines poles in a continuum of mixing practices. Here, languages are described as non-prototypical if their splits are less clearly defined or because the sociohistorical background of shift or maintenance is less straightforward.

Table 1: An integrated typology of sociohistorical and structural features in mixed languages.

Sociohistorical type		
	Shift	Massive introduction
Structural type	G-L Ma'á	Media Lengua
	<i>Angloromani, Caló Català, Kallawaya, Lekoudesch, Old Helsinki Slang, Oschideutsch, Shelta</i>	<i>Bilingual Navajo, Chindo, Javindo, Petjo</i>
	N-V Gurindji Kriol	Michif
	<i>Light Warlpiri, Mednyj Aleut, Reo Rapa</i>	<i>New Tiwi, Okrika Igbo</i>

The type “G-L shift” includes languages that have an entire matrix (i.e. form and function of both noun phrase [NP] and verb phrase [VP] inflection [INFL]) from the introduced language, as in Ma'á. They result from the wholesale manipulation of lexical roots taken from the ancestral language. Typical examples of this class are ex-nomadic varieties (e.g. Shelta), lexical reservoir registers of an ancestral language in the process of attrition (Angloromani, Caló Català, Oschideutsch), secret languages (Kallawaya) and urban jargons (Old Helsinki Slang). The great majority of the so-far known mixed languages can be classified under this class. Most of them are spoken as a register of their matrix source language. When this is the case, diachronically, G-L shift languages may emerge from a gradual corrosion of available functional elements and grammatically productive morphemes from the ancestral language (cf. Adiego 2012 for Caló Català; Matras et al. 2007: 14, 25 for Angloromani).

The type “N-V shift” includes languages that have VP INFL from the introduced language that the community has shifted to, like in Gurindji Kriol. The NP INFL is borrowed from the ancestral language. Typical examples are mixed varieties that emerged in situations of interrupted shift to an introduced language to avoid language loss (Mednyj Aleut, Reo Rapa), or emergence of new identities that do not match the introduced or the ancestral language (Light Warlpiri). In

the prototypical scenario, the community has shifted to the introduced language and speak it alongside the mixed variety (Gurindji Kriol), but non-prototypical scenarios include non-concluded or interrupted shift to the introduced language (e.g. Light Warlpiri, O'Shannessy 2006). This class presents more diversity in terms of patterns of grammatical and lexical mixing, and the source of lexical verbs and nouns may or may not align to the source of the respective inflection. For example, Gurindji Kriol and Light Warlpiri differ in that verbs and verbal inflection are almost always derived from Aboriginal English/Kriol in Light Warlpiri, while VP-internal mixing is common in Gurindji Kriol (i.e. Gurindji stems and Kriol TMA marking, as in [3]). Furthermore, some languages in this class present less prototypical N-V INFL splits. For example, Reo Rapa resulted from an interrupted shift to Tahitian and has verbal inflection from both Tahitian and Old Rapa, based on the phonological shape of the stem (Walworth 2017). Moreover, although prototypically VP and NP INFL coincide with these aspects of the source languages in both form and function, some mixed languages depart from this picture. In Mednyj Aleut finite verbal morphology differs considerably from that of Russian as a result of a simplification of the verbal inflectional paradigm (Sekerina 1994: 27).

The type “G-L massive introduction” includes languages that have an entire matrix (i.e. form and function of both NP and VP INFL) from the ancestral language, like in *Media Lengua*. They are the mirror image of what found in the G-L shift type. They result from the wholesale manipulation of lexical roots taken from the introduced language. There are rather few attested examples of this class, and they probably have the most intriguing and unusual triggering factors at the sociolinguistic level, being in many cases fully deliberate creations. Bilingual Navajo can be included in this class, although it represents a less prototypical case, as not all the Navajo stems are replaced by the English ones. In addition, it seems that Ilokano-Spanish (Sippola, this volume) and the Indonesian varieties *Petjo* (Malay grammar with Dutch lexicon), *Javindo* (Javanese grammar with Dutch lexicon), *Chindo* or *Peranakan Chinese* (Javanese grammar with Malay lexicon) would fall within this class.

The type “N-V massive introduction” includes languages that have an VP INFL from the ancestral language, like in *Michif*. The NP INFL is borrowed from the introduced language. Typical examples of this type are mixed varieties related to the emergence of a new identity. *Michif* is prototypical in this class because introduced (Metis French) NP INFL is used with introduced noun roots, while ancestral (Plains Cree) VP INFL is used mostly with ancestral stems (although Mazzoli, Bakker and DeMontigny [this volume] analyze occurrences of verb stems from Metis French, the introduced language). Other languages in this class have less prototypical splits. For example, in *New Tiwi*, Tiwi-derived

verb inflection is partly reduced and innovative with respect to Traditional Tiwi, and the majority of verb stems are from English (cf. Bakker, this volume). Okrika Igbo can also be seen as less-prototypical case in this class, despite some difficulties in establishing the sociohistorical background and the source of its nominal grammar. Finally, languages like Chamorro, Tetun Dili and other heavy borrowers could be classified within this class if they had borrowed more grammar from the introduced language.

One of the defining criteria for mixed languages is that they have an evident split in the source of their morphemes' form. Prototypical mixed languages are those which combine typologically distant varieties, where the split is immediately visible. Non-prototypical cases include languages with two closely related varieties as their source, like Barranquenho (Clements, Amaral, and Garrett, this volume) and Cité Duits (Pecht, this volume). In these cases, it is often difficult to distinguish the origin of many lexical roots and functional morphemes and to define a matrix from one specific source variety. Clements, Amaral, and Garrett (this volume) present data from Barranquenho spoken in a predominantly Portuguese-speaking area with mainly Portuguese lexicon and multiple Spanish-derived morphosyntactic features. This analysis would place Barranquenho among G-L mixed languages resulting from massive introduction (of Portuguese lexicon into a Spanish matrix). Moreover, the sociolinguistic factors determining the mixing support classifying Barranquenho as a mixed language: the motivation for retaining prominent morphosyntactic features from Spanish was not lack of access to Portuguese but rather a deliberate affirmation of hybrid identity.

"Converted languages" present a special case, where the "mixing occurs below the level of the form" (Meakins 2013: 216). Bakker (2017: 221) labels them Frame-Root (F-R) mixed languages because they adopt the typological frame (F) from one source language, but all the lexical and/or functional roots (R) from another source language (cf. the distinction between pattern and matter, Matras and Sakel 2007). In the attested cases, this is the result of a long-lasting process of convergence, called "metatypy" (Ross 1996), that is the restructuring of a language's typological configuration in intense, prolonged contact situations. Known examples of converted languages are Sri Lanka Malay, Sri Lanka Portuguese, Takia (Meakins 2013: 164; Bakker 2017: 222), and Wutun (Sandman, this volume). Sociohistorically, converted languages emerge when the ancestral language maintains its lexicon but its morphosyntax undergoes restructuring due to contact with an introduced language. They are not the product of language shift, but rather of gradual convergence and community bilingualism. It is unclear to what degree converted languages conform to the criteria used for defining mixed language creation. Their mixing occurs below the level of the

form, and several sources can be identified for their structural make-up, but it is debatable whether they are conscious, deliberate creations. Sandman (this volume) offers important insights on Wutun from a mixed language perspective.

3 Lexical manipulation and phrase insertion

Mixing processes responsible for the formation of mixed languages can be divided into lexical manipulation and phrase insertion. Lexical manipulation creates mixed languages of the G-L structural type and phrase insertion (or insertional code-mixing) originates the N-V structural type.

Lexical manipulation plays a role in language mixing especially after shift to a new language. It does not require full bilingualism and can occur when knowledge of one of the languages is limited. In mixed language formation, it means the wholesale manipulation of content-full stems. Therefore, in cases involving lexical manipulation, the creation of G-L mixed language is indeed a matter of quantity in the number of the manipulated items. This is the typical case of most mixed languages, e.g. G-L split secret languages, such as Kallawaya, or G-L split due to retention of ethnic lexicon after shift, such as Para-Romani varieties, Oschideutsch, and Ma'á. Matras (2000) uses the term “lexical re-orientation” when the ancestral language anchors the predication and the introduced language is the source for the lexical manipulation, as in the case of Media Lengua and Bilingual Navajo, and the term “selective replication” to refer to cases where the socially dominant language anchors the predication and a parallel lexical reservoir from the ancestral language is used for the mixed variety, as in Angloromani or Ma'á.

Especially in the case of retention of an ethnic lexicon after shift, borrowed forms carrying inflection marking can trigger the borrowing of certain grammatical categories or morphemes, which become productive in the mixed variety either at the level of the language system (psychological availability of the grammatical morphemes), or even in production of new coinages. However, in many cases, the productivity of the alleged borrowed grammatical forms is uncertain (e.g. some Romani morphology in Angloromani or Caló Català), or unlikely due to the typology of the languages involved (e.g. Okrika Igbo, given the absence of segmentally-realized bound morphology in the Okrika noun phrase borrowed into the Igbo frame). This also opens to a continuum between lexical manipulation and phrase insertion.

Phrase insertion is conventionalized and stable intra-sentential code-switching. In mixed language formation, phrase insertion triggers the borrowing of grammatical features from the embedded language into the structural frame of

the matrix language (e.g. the productive use of the feminine gender in coding borrowed English nouns in Michif, Sammons 2019: 231–234). In mixed language formation, as well as in less extreme contact situations, the borrowing of lexical or phrasal material from the non-matrix language concerns first of all content-full items. In the case of a “massive introduction” from a non-matrix language without intention to shift, the borrowing of lexical items or phrases concerns primarily nouns, as in other borrowing situations (cf. section 5). Here the status of “mixed” depends on the degree of productivity, or on the amount of available, nominal grammar from the introduced language. Grammatical borrowing and the productive use of inflection from the non-matrix language determine a “matrix ambiguity” in the fused lect, which determines how structures are mixed. In the context of balanced bilingualism, mixed language creation by phrase insertion may involve “a transitional period of ambiguity in the default construction of the utterance” (Matras et al. 2007: 143). This ambiguity is a pivotal stage in the formation of mixed languages presenting a variation of the N-V split, and it has been connected to sociohistorical circumstances determining a matrix language turnover (Myers-Scotton 1998).

4 The matrix language

Different criteria can be used to identify a matrix language in a multilingual production. Matras (2000) identifies the matrix with the language that provides the finite verbal inflection. McConvell and Meakins (2005: 18–19), in their analysis of the code-switching practices in the formation of Gurindji Kriol, identify the matrix as the language that supplies a clause’s TMA markers or inflection morphology, auxiliaries, and pronominal enclitics. However, Myers-Scotton (2002) attributes the inflection morphology marking agreement in both the verb and the noun phrases to the matrix language, as these phrases establish the relationship between an argument and a verb. In Myers-Scotton’s model, pronouns also belong to the matrix, but other types of morphemes, such as plurals or nominal classification morphology, are often predicted to belong to the non-dominant, embedded language. Prolonged bilingualism brings about a deeper interaction between the matrix and the embedded language. Within the embedded noun phrase, this may lead to the extensive use of functional elements, such as articles, and outcomes not in line with the matrix in the case of feature clashes, as in the case of gender assignment (Fuller and Lehnert 2000).

In most mixed languages, it is possible to identify a coherent matrix language. It is straightforward for the G-L languages whether or not they result from a shift. On the other hand, identifying a matrix can be more difficult for the N-V languages, as they show a greater degree of structural mixing. Although this holds for the whole group of N-V languages, the degree of matrix ambiguity appears greater in those languages that resulted from shift and in conditions of more balanced bilingualism. This reflects an extraordinary tension between shift and maintenance, and/or specific identity claims. The following analysis explains the continuum of grammatical mixing among the known mixed languages presented by Meakins (2013: 179).

In mixed languages, a single matrix language seems to be the source of finite verb inflection, word order, and pronouns (cf. Tables 2–5 presenting linguistic aspects related to an ideal matrix language for 12 mixed languages). These features thus constitute a coherent definition and diagnostic for identifying a matrix language in mixed languages, even if information on the social history is not available. This holds true for the less structurally mixed languages (G-L), like Media Lengua (Quichua matrix), but also for more structurally mixed languages. Predictably, nominal inflections, demonstratives, and determiners often come from the embedded language, especially in N-V mixed languages after shift, like in Gurindji Kriol and Light Warlpiri. Mixed language formation often happens in situations of maintenance of an ancestral language after shift, and the social factors pushing in the direction of reclaiming an ancestral identity are often strong enough to motivate the retention of ancestral

Table 2: Grammar-Lexicon languages after massive introduction.

	Media Lengua	Bilingual Navajo
<i>Verb inflection or TMA marking</i>	Quichua	Navajo
<i>Word order</i>	Quichua (main source)	Navajo
<i>Personal pronouns or markers</i>	Spanish	Navajo
<i>Negation</i>	Quichua and Spanish	Navajo
<i>Demonstratives</i>	Spanish	–
<i>Noun inflection</i>	Quichua	Navajo
<i>Articles and other determiners</i>	Spanish	–
<i>Phonology</i>	Quichua	Navajo
source	(Deibel, this volume; Stewart 2011)	(Schaengold 2004)

Table 3: Grammar-Lexicon languages after shift.

	Angloromani	Ma'á	Old Helsinki Slang	Kallawaya
<i>Verb inflection or TMA marking</i>	English	Pare	Finnish	Quichua
<i>Word order</i>	English	Pare	Finnish (?)	Quichua
<i>Personal pronouns or markers</i>	English (replaced Romani ones)	Cushitic	Finnish	Quichua
<i>Negation</i>	Romani	Pare	Finnish	Opaque and Quichua
<i>Demonstratives</i>	Romani	Cushitic (vague resemblance)	Finnish	Opaque (but not Quichua)
<i>Noun inflection</i>	English and Romani	Pare	Finnish	Quichua
<i>Articles and other determiners</i>	English (replaced Romani determiners)	Cushitic (possessive)	Finnish	Quichua (Pukina)
<i>Phonology</i>	English (convergence is documented)	Pare	Finnish and Finland Swedish consonants and phonotactics, Finnish vowels	Quichua
source	(Matras et al. 2007)	(Mous 2003)	(Jarva 2008)	(K. Hannß p.c.)

Table 4: Noun-Verb languages after massive introduction.

	Michif	New Tiwi	Okrika Igbo
<i>Verb inflection or TMA marking</i>	Plains Cree	Tiwi	Igbo
<i>Word order</i>	Plains Cree	Innovative (restructured typology)	Igbo
<i>Personal pronouns or markers</i>	Plains Cree	Tiwi	Igbo

Table 4 (continued)

	Michif	New Tiwi	Okrika Igbo
<i>Negation</i>	Plains Cree	?	?
<i>Demonstratives</i>	Plains Cree	Tiwi	Igbo
<i>Noun inflection</i>	Metis French	?	Okrika (but mixed prepositional phrases)
<i>Articles and other determiners</i>	Metis French (but mixed possessive forms)	?	No articles as in Igbo
<i>Phonology</i>	Plains Cree	?	Mixed
source		(Lee 1987; McConvell 2008)	(Wakama 1999)

Table 5: Noun-Verb languages after shift.

	Gurindji Kriol	Light Warlpiri	Mednyj Aleut
<i>Verb inflection or TMA marking</i>	Kriol	Kriol	Russian (but simplified)
<i>Word order</i>	Kriol	Kriol	Innovative
<i>Personal pronouns or markers</i>	Kriol	Kriol and Warlpiri	Russian
<i>Negation</i>	Kriol	Kriol	Aleut and Russian
<i>Demonstratives</i>	Gurindji and Kriol	Warlpiri	Aleut and Russian
<i>Noun inflection</i>	Gurindji and Kriol	Warlpiri	Aleut
<i>Articles and other determiners</i>	Kriol	–	Aleut and Russian (mixed forms in possessives)
<i>Phonology</i>	Gurindji	Mixed?	Mixed (contradictory evidence on reciprocal assimilation)
source	(McConvell and Meakins 2005; Meakins and O'Shannessy 2010; Meakins 2011; Stewart and Meakins, this volume)	(O'Shannessy 2006, 2011)	(Golovko and Vakhtin 1990; Sekerina 1994)

grammar and for using it productively. Full bilingualism and access to the ancestral language permit the insertion of full phrases, but attrition in the ancestral language results in cases of lexical manipulation. Instead, when N-V mixed languages emerge by massive borrowing from an introduced language, like in Michif, the social factors that push mixing are often tied to the birth of a new identity. This factor is less common among the known mixed languages and apparently less likely to trigger productive grammatical borrowing from the introduced language.

On top of the triad of verb inflection, word order, and pronouns, other structural features and functional elements, such as discourse markers and conjunctions, contribute to determining a clear language matrix, even in extreme cases of language mixing. Alignment of negation and phonology with the matrix is contradictory (Table 2–5). Irrespective of the type of mixed language, negation can pattern against the matrix frame, as in *Media Lengua*, *Angloromani* and *Mednyj Aleut*, but also in *Kumzari* (Anonby 2014) and *Javindo* (Winford 2013: 377). Matras (2003: 156) notes that negators, as well as existentials, have high referential value and propositional saliency, which is why they pattern against the matrix, especially if the mixed code serves as a secret register. Many non-experimental accounts of the phonology of mixed languages argue for a mixed phonology, stratified according to the source languages of the lexemes (e.g. Wakama 1999: 42 for *Okrika Igbo*; Sekerina 1994 for *Mednyj Aleut*; Papen 2017 and van Gijn 2009 for *Michif*). Stewart and Meakins (this volume) present experimental evidence in support of the fact that the phonology of mixed languages is fundamentally based on that of the ancestral languages, irrespective of the source of the matrix. This applies to *Michif* (N-V massive introduction), *Gurindji Kriol* (N-V shift), and to *Media Lengua* (G-L massive introduction). In the case of *Michif* and *Media Lengua*, the phonology aligns with the matrix, but not in the case of *Gurindji Kriol*. Interestingly, known cases of G-L shift mixed languages like *Angloromani* have a phonology based on the introduced language, in alignment with the matrix (cf. Matras et al 2007: 20). Therefore, the mismatch between the matrix and the phonology in *Gurindji Kriol* may have to do with the level of access to the introduced language the community has shifted to. Further analysis of N-V mixed languages that emerged after shift may contribute to our understanding of social factors shaping mixed language formation, especially in relation to the mixed language phonology.

From superficial observation of linguistic evidence alone, it has been difficult to draw the line between an incomplete shift to a new language and a massive introduction of lexicon and structure from an introduced language. By combining the sociolinguistic information available and the structural cues expected to point to a matrix language (source of verb inflection, TMA marking in

the verb phrase, personal pronouns, and word order, cf. Matras 2000), we are able to reconstruct in what direction the borrowing took place.

5 Structural borrowing and mixed languages

In mixed languages, borrowing processes are often extreme: in addition to structural elements that come with lexical insertions and free functional elements, rare cases of borrowing are also attested (Matras 2003). In general, typological factors conditioning the mixing of specific language pairs are connected to the structural properties and the typological distance between the languages in question (McConvell and Meakins 2005; Winford 2010).

The borrowing of structural items is also known from heavy borrowing languages. However, both in mixed and other languages, the productivity of the alleged borrowed grammatical forms, such as inflectional affixes (Seifart 2015), and structural categories is often uncertain (cf. some Romani morphology in Angloromani or Caló Català; Romance items in Chamorro and Tetun Dili, Stolz 2003). In addition, the difference between heavy borrowing and mixed languages can be observed in that mixed languages also borrow grammatical (nominal) features, including contextual inflection, from the embedded language (cf. Gurindji case marking in Gurindji Kriol, French sex-based gender in Michif), exhibit structural features that are innovative with respect to both source languages (cf. Media Lengua negation strategies, Stewart 2011; Michif mixed possessive forms, Rosen and Souter 2009: 60), and/or exhibit features of wholesale manipulation of the content-full items (cf. Media Lengua, Kallaway).

Structural borrowing is constrained by factors related to the degree of integration, abstract semantic value and transparency (Moravcsik 1978; van Hoot and Muysken 1994; Field 2002; Mithun 2012). In general, thus, nouns and other open-class items are more amenable to borrowing than closed-class items, derivational morphology is borrowed more easily than inflectional morphology (Singh 1982; Muysken 2000), and inherent inflection is borrowed more frequently than contextual, syntactically relevant inflection, e.g. agreement (Gardani 2008). For example, Bakker (this volume) and Mazzoli, Bakker and DeMontigny (this volume) show that the indivisibility of the verb or the noun have an effect on the structural outcome of some N-V mixed languages. If a functional item is tightly connected to its main root (e.g. indivisible morphology, cohesion as to tone and vowel harmony), and thus less available for separation and replacement, it can be retained even if the overall structural setup seems to point towards a different matrix language. Although these principles seem to apply for languages in general, some of

the accommodation strategies are typologically rare, even when looking at other contact languages. It has also been proposed that speakers of head-marking verb-coding languages retain the verbal elements from their first language, while speakers of dependent-marking noun-coding languages retain the nominal elements (McConvell 2008: 200). Bakker (this volume) points out that these processes seem to include simplification as well, at least in the case of New Tiwi.

The borrowing of inflectional morphology is generally limited to cases of dialect contact and close typological fit between the languages involved (Winford 2010: 176; Thomason 2015: 42). In addition, complete inflectional paradigm borrowing has been viewed as a defining feature of mixed languages (Thomason and Kaufman 1988; Matras and Bakker 2003), e.g. in the case of the entire English inflectional paradigm in Angloromani, as well as the Bantu grammatical frame in Ma'á, or the Russian-derived finite verbal paradigm in Mednyj Aleut (e.g. Golovko and Vakhtin 1990). However, considering these cases as examples of “borrowing” is misleading, as in all cases the shift has already happened. Vakhtin (1998) argues that in Mednyj Aleut specific mixing has emerged once the mixed community, who had shifted to Russian, re-introduced Aleut after it was partially lost (cf. also Auer 2014: 302). Russian being the language of the predicate structure, Aleut items are borrowed into Russian, and Russian-derived finite inflection can no longer be said to be borrowed or copied into Mednyj Aleut. Similarly, in Ma'á, a shift to Pare, a Bantu language providing verbal and nominal inflection in Ma'á, had already happened (Mous 2003). Here, a process of lexical manipulation re-introducing Cushitic lexicon into a Bantu frame is done to re-affirm a partially lost ancestral identity. Again, the Bantu grammar in Ma'á is not borrowed. Likewise, in Angloromani and other Para-Romani varieties English inflection is proof of a completed shift to English. In this case, Romani lexicon and variably productive nominal inflection are retained in an effort to reconnect to the Romani ethnic identity (Matras 2015: 72). Notwithstanding this solid evidence, mixed languages continue to be cited as rare cases of complete paradigm borrowing, associated to the formation of G-L or N-V mixed languages (Pakendorf 2009; Meakins 2011: 63; Gardani 2012: 75; Seifart 2013; Gardani, Arkadiev and Amiridze 2015: 11).

Also, interesting evidence regarding borrowed inflection is emerging from mixed languages. Gurindji Kriol shows borrowing of contextual inflection, the most uncommon case of grammatical borrowing (Meakins 2011). Clements and Luís (2015) illustrate a case of exceptional morphological borrowing in Korlai Indo-Portuguese, which borrowed a Marathi non-finite verb form to create a new inflectional class, specifically for integrating loan verbs. The Korlai case appears to be surprisingly similar to Michif, where the French infinitive marker *-er* accommodates English loans to form animate intransitive Michif verbs

(Mazzoli, Bakker and DeMontigny, this volume). In addition, in Greek Thrace Romani (Adamou and Granqvist 2015; Adamou, this volume), Muslim Roma speakers regularly draw on Turkish verb inflection when using Turkish-derived lexical verbs. Unintegrated inflected Turkish verbs are inserted into a Romani dominant speech where Romani verbs and nouns inflect with Romani inflection and the word order is Romani. The split in verbal morphology shows evidence of a typologically rare case of borrowing. However, in these cases inflectional morphology is replicated along with lexical word forms from the same language and the diffusion of inflection into other lexicon is blocked (cf. compartmentalization by Matras 2015: 67; parallel system borrowing by Kossmann 2010; paradigm transfer by Adamou 2012). Matras (2015) proposes that the borrowing of inflection is dispreferred in contact situations, since inflection anchors the predication to a coherent language frame and grants it integrity and stability (see Thomason 2015 for a different view in reference to mixed languages). The overviewed cases in the use of verbal inflection are motivated by special social conditions of mixed language formation, where communities are “re-negotiating language boundaries, which in turn is part of a process of re-negotiating identity” (Matras 2015: 76).

6 Sociolinguistic motivations

Of the sociolinguistic motivations in mixed language formation, new identity marking, recuperation of an ancestral connection, and a need for camouflage and secrecy are often mentioned (Meakins 2013: 181; Bakker 2017: 244). An act of identity (LePage and Tabouret-Keller 1985) is a useful concept when explaining some cases, such as Barranquenho, Ilokano-Spanish, Michif, Romani varieties, Cité Duits, and Media Lengua. A mixed group uses the mixed variety to signal a new ethnic identity or to differentiate themselves from the speakers of the ancestral and/or introduced language (cf. Muysken 1981; Bakker 1997; Croft 2003). However, the application of this factor to mixed languages spoken by Aboriginal groups, such as Light Warlpiri and Gurindji Kriol, is problematic, as their identity remains aligned with the Aboriginal identity (Meakins 2008; Bakker, this volume). The same could be argued for Wutun, whose speakers align with the Tibetan community (Sandman, this volume). In some cases, the new identity is born out of mixed marriages and reflect a gendered division between the languages (Bakker 1997 for Michif; Sandman, this volume for Wutun; Dudek Herring and Clements, this volume for Jopara), but this is not always the case (e.g. Romani varieties, Barranquenho, Kallawaya). The recuperation of an ancestral connection (cf. the U-turn hypothesis, Sasse 1992; Boretzky and Igla 1994;

Vakhtin 1998) happens in cases of shift towards an introduced language where the group deliberately attempts to reclaim its ancestral identity (e.g. Angloromani, Ma'á). Secrecy is a way of excluding outsiders from understanding, used especially for in-group communication and ritual and secret languages. In general, consciousness and deliberation are central in signaling a distinct identity or for creating secrecy for a code. All in all, the diversity of situations presents no single, cohesive sociolinguistic motivation for mixed language formation beyond motivations related to in-group communication and deliberation (Meakins 2013: 181; Thomason 2003) and responses to shift.

The level of access to the languages involved includes different degrees of bilingualism in situations of shift a new language and in language loss and attrition. The roles of the different languages that participate in the formation of mixed languages are sociolinguistically diverse, ranging from limited presence in the community to full bilingualism, and from language shift to language maintenance situations. Bilingualism is thus tightly connected to variation, as is not necessarily equal for the whole community, as also shown in Dudek Herring and Clements (this volume). These are thus necessary conditions, but they alone do not explain the outcome (Versteegh 2017: 222; Bakker, this volume). An integrated typology, as proposed here, combining both structural and sociolinguistic factors is needed to explore processes and factors of mixed language formation.

7 Conventionalization

The analysis of multilingual contexts in which some kind of conventionalized mixing already plays a role is of great interest with regard to social and structural motivations for mixed language formation. For example, Dudek Herring and Clements (this volume) show that the degree of conventionalization in Jopara differs according to one's communities of practice and can be sensitive to factors of register and style. The same could be said about Tetun Dili, although the overall degree of Portuguese borrowings is lower despite the diglossic situation involving both Tetun (Dili) and Portuguese. Regarding structural motivations, if code-switching is a common practice in a community, it might lead to a preference for code-switching in a certain structure. This specific pattern, be it insertional or alternational, will conventionalize with time and may start functioning as a way of inserting specific utterances that become automated (Backus 2003: 255). Conventionalization is thus a mechanism that is needed for code-switching or borrowing patterns to stabilize.

Adamou (this volume) shows with the Romani-Turkish example that fused lects represent a dynamic stage in the continuum from language mixing to stable mixed languages where certain mixing patterns have become conventionalized. Turkish Romani is characterized as a fused lect stage in mixed language formation (cf. Auer 1999). Structural exceptionality is shown in the fact that Muslim Roma from Greek Thrace insert unintegrated inflected verbs into Romani dominant speech. Experimental studies on Romani-Turkish mixing show no difference as to the processing costs of sentences that reflect the established patterns in the community – the mixing has thus become conventionalized. The socially dominant language in the community is Turkish, although the shift to Turkish contrasts with strong tendencies of Romani language maintenance in the community.

Light Warlpiri has probably been formed through a similar process (Meakins and O'Shannessy 2010; O'Shannessy 2012). In the Australian case intergenerational transmission permitted the formation of a stable mixed language, after adults consistently engaged in a baby talk register which included code-switching into English using English verbal structures. McConvell and Meakins (2005) describe a comparable scenario for the formation of Gurindji Kriol from code-switching practices involving Gurindji and Kriol. It is not clear if this scenario also applies to the formation of New Tiwi (Lee 1987: 355; Bakker, this volume), as suggested by Meakins (2014: note 10).

Conventionalization is not necessarily uniform but happens in different degrees and phases for different levels and compartments of the language system, according to the sociolinguistically conditioned language use in the community. This is shown, for example, by the experiments on compartmentalized Turkish verbs and the stable pronoun paradigm of *Cité Duits* with conventionalized forms (Adamou, this volume; Pecht, this volume). Similarly, although varieties of *Media Lengua* or *Jopara* show differing degrees of structural features from Spanish, this is not the case for the conservative *Imbabura* variety (Deibel, this volume) or rural varieties of *Jopara* (Dudek Herring and Clements, this volume). Especially in cases of larger communities, defining a variety as a mixed language or a code-switching variety should be carefully established for subsections of the community (Dudek Herring and Clements, this volume). In addition, variation in mixing patterns and their degree of conventionalization across a community can make it challenging to establish a variety or a sample clearly on a continuum from borrowing to code-switching of a mixed language. *Jopara* being a case in point from a larger community, while an example of a historical text is studied in the Ilokano-Spanish case (Sippola, this volume). If the mechanisms and processes involved in mixed languages are indeed similar to other language contact situations, this is not surprising.

8 Core to fringe

This volume presents studies on prototypical and non-prototypical mixed languages in our integrated typology. Of the uncontroversial cases, Media Lengua is an example of G-L massive introduction, Michif of N-V massive introduction, and Gurindji Kriol of N-V language after shift. In addition, Kallawaya is an example of G-L shift language, although its use is confined to a secret code. Less prototypical languages in the classification include Turkish Romani from the G-L shift group, Light Warlpiri and Mednyj Aleut from the N-V shift group, Ilo-kano-Spanish and Barranquenho from the G-L massive introduction and New Tiwi and Okrika Igbo from the group of N-V massive introduction. However, the splits in these languages do not show a perfect match with the prototypical case or their sociohistorical background is more complex. Some other cases are more difficult to classify. Wutun, for example, shows a high degree of structural mixing of at least three languages, without a clear split between the grammatical subsystems or between the lexical and the grammatical domains. It is here classified as a converted language and placed outside the typology. Similarly, Barranquenho and Cité Duits are born out of contact of closely related varieties, and due to the structural (and sometimes lexical) proximity of the languages in contact at the time of formation of the new variety, it is difficult to ascertain the origins of certain structures. For heavy borrowers, such as Chamorro and Tetun Dili, the degree of mixing is not sufficient.

This selection of studies highlights existing trends in mixed languages and relative implicatures which shed light on the linguistic and social forces at play in the emergence and development of mixed languages. The first chapters of the volume focus on the characteristics of mixed languages and the processes involved in their formation. The following chapters include case studies on particular varieties and the motivations behind their use and formation. Non-prototypical cases and different types of linguistic mixtures are also discussed. The final chapter proposes a performative account of mixed language formation. These themes shed light on the nature and characteristics of mixed languages, the social, grammatical, and cognitive mechanisms behind language mixing, and the role of mixed languages in the larger theorizing about language contact.

Abbreviations

3	third person
ACC	accusative
AI	animate intransitive
CNJ	conjunct
CONN	connective
DEF	definite
ERG	ergative
F	feminine
INAN	inanimate
INFL	inflection
IND	indicative
M	masculine
NP	noun phrase
PF	perfective
PROP	propriative
PST	past
SG	singular
TOP	topic
VP	verb phrase

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