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Why is the borrowing of inflectional morphology dispreferred?

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1. Introduction

It has often been pointed out that bound morphology and especially inflectional morphology is more rarely borrowed than unbound morphemes, be they lexical or grammatical. Among the explanations offered is the 'paradigmaticity' of bound morphemes (van Hoot & Muysken 1994) as well as their more abstract semantic value (Moravcsik 1978; Field 2002) and the assumption that speakers are somehow less conscious of morphology (Mithun 2012: 15). While these traits may well be characteristic of structural material that is less prone to borrowing, they do not offer a direct *explanation* as to why they should make morphemes more resistant to change in language contact situations.

In order to address this question we must firstly establish what it is that motivates grammatical borrowing in the first place. I will therefore begin by sketching the main principles of a user-oriented theory of borrowing (Section 2) that is outlined in more detail in Matras (2009). I then review the borrowing of various categories of bound morphology and attempt to link borrowing patterns with speakers' motivation to borrow. I understand 'motivation to borrow' as bilingual speakers' motivation to blur the demarcation boundaries between different portions of their overall repertoire of linguistic structures and to generalise a form or structure across this repertoire as a whole and use it irrespective of setting, addressee, topic and so on. This – control over the multilingual repertoire – is, I propose, at the heart of the process that may ultimately lead to contact-induced language change. The choices that bilinguals make in using their repertoire of structures are ultimately responsible for the possible spread of elements from one speech community into another, which is what we identify in historical-diachronic perspective as 'borrowing'.

Below I cite some evidence that allows us to identify several types of morphological borrowing. The first involves replication of inflectional morphology patterns without actually any replication of formal structures. This kind of morphological convergence is illustrative of the efforts that speakers make in multilingual constellations to actually avoid the replication of bound inflectional morphemes from one language in another (Section 3). Next I look briefly at commonly attested morphological borrowing involving derivational morphology and the marking of nominal plurals (Section 4). I then examine what I call 'Morphological Analogy' – a process by which inflectional morphemes are replicated from a donor language on the basis of some kind of similarity that they show to native morphemes that are functionally related (Section 5). The final type involves what I call 'Morphological Compartmentalisation' (Section 6). Here, inflectional morphology is replicated along with lexical word forms from another language in situations in which speakers embrace and flag a bilingual identity. These are exceptional processes, which are very much confined, as far as we can tell, to a small number of communities in which a rather radical process of identity re-negotiation is or has been underway. They are the exceptions that prove the rule.

Even in cases of morphological compartmentalisation, the role of 'borrowed' inflectional morphology is, I argue, to authenticate the replication of lexical words forms and phrases from a donor or contact language. Diffusion of inflectional morphology into inherited or native lexical material is usually blocked here too.

Cases of morphological compartmentalisation are sometimes cited as examples that there are no constraints on borrowing and that 'anything goes'. However, even these cases show that bilingual speakers are in fact quite uneasy about lifting the demarcation boundaries among languages in their repertoire when it comes to inflectional morphology. As a result we can conclude that the borrowing of inflectional morphology is certainly dis-preferred. The reasons for this are primarily, in my view, not structural, but functional. Inflectional morphology serves as the carrier for initiating and anchoring the predication (on the verb and its auxiliaries) and for identifying the predicate's argument structure (on the noun and its attributes). In a multilingual communication setting, the choice of 'language' amounts to the choice of structures used to anchor the predication and its arguments (verb-inflectional morphology such as person, tense, modality and aspect). The choice of, for example, lexical material, modifiers, or prosody is less crucial in this respect, and so these are more easily 'transferrable' from one language to another; or, in a formulation that is consistent with the functional, usage-based model followed here, they are more easily generalised by bilinguals across their repertoire of structures irrespective of setting, context, or addressee.

The predication and its argument structure may therefore function as the last resort through which speakers identify and flag language choice. It allows speakers to maintain some kind of mental boundary between 'languages' and consequently a social boundary between sets of interaction contexts – which is what the demarcation of languages represents. This boundary is only compromised in exceptional circumstances, where a speaker community embraces its diverse (plurilingual) repertoire of structures, forms and interaction settings as one single whole, and where language 'choices' therefore become less instrumental in negotiating social identity.

2. Toward a usage-based model of borrowing

Descriptive and historical linguistics have traditionally viewed 'contact' as a useful metaphor through which to depict the circumstances under which languages change by absorbing influences from other languages. Although Weinreich (1953), the pioneer of language contact studies, had remarked that the true locus of language contact is the bilingual individual, most contemporary research in the field is based on the assumption that linguistic 'systems' influence one another in contact situations. Consequently, constraints are sought in the shape and nature of systems in order to explain or predict borrowing patterns (cf. Moravcsik 1978; Field 2002). Thomason & Kaufman's (1988) well-cited borrowing scale emphasises the relevance of the intensity of cultural contacts to the level of structural borrowing, re-focusing on the socio-cultural dimension as a necessary angle in the assessment of contact. Nevertheless, the scale lacks an explanation as to why some categories – function words, for example – should be easier to borrow through shallower cultural contacts, while others – such as word order – require prolonged and more intense contact.

I propose an alternative approach to language contact (see Matras 2009 for more detail). It is based first of all on a view of language as the practice of communicative interaction and of grammatical categories as triggers and operators

of language processing tasks that are involved in communication. According to this approach, the selection of structures by a speaker is not arbitrary, but directly derived from the linguistic task-schema that the speaker wishes to carry out. This, in turn, is subordinated to the goal-oriented activity that the speaker pursues by means of verbal communication, organised at the level of discourse. Such a view of language is compatible with a wide range of theoretical approaches to communication and discourse (e.g. Sacks, Schegloff, & Jefferson 1974; Rehbein 1977; Gumperz 1980; Ehlich 2007) as well as to speech production (e.g. Green 1998; Paradis 2004).

Next, the model followed here presupposes that 'borrowing', even in the less controversial sense of the term (for discussions of the codeswitching-borrowing distinction see e.g. Myers-Scotton 1993, 2002, Backus 1996, Muysken 2000; for the codeswitching-borrowing continuum see Matras 2009: 110ff.), begins in situations in which speakers of a language must communicate in certain contexts in which their own 'native' language does not constitute a fully adequate means of communication. In order to do this, speakers must extend their repertoire of linguistic structures, even if only in a rudimentary way. Becoming 'bilingual' is therefore, even in the most basic sense, an extension of an individual's settings of communicative interaction, and as a result, an extension of that individual's repertoire of communicative structures. This does not necessarily mean that borrowing is always deliberate or conscious, but it does mean that it is purposeful and functional. Becoming bilingual from infancy means early exposure to a complex repertoire. This requires gradually sorting out the sets of contexts and contextual conditions under which various sets of structures from within this repertoire are considered appropriate. Thus, even bilinguals-from-birth do not acquire two language 'systems'. Rather, they acquire a repertoire of linguistic structures and forms and are left to gradually master the rules on appropriate context-bound selection of one form over another as part of a process of linguistic socialisation (see Lanza 1997; Matras 2009, Ch. 2).

Following from this assumption, I propose that bilinguals – even 'full', 'fluent' or 'balanced' bilinguals – do not, in fact, organise their communication in the form of two 'languages' or 'linguistic systems' (for more detail and a discussion of the empirical basis of this proposal see Matras 2009, 2012a). Rather, bilinguals have an enriched and extended repertoire of linguistic structures. As part of their linguistic socialisation, they learn when to select which word-form, construction, or prosody pattern as appropriate in a given setting or context of interaction. Some settings or contexts allow greater flexibility of choices. This is where bilinguals may make most effective use of their full repertoire, exploiting nuances as well as contrasts between variants of equivalent or near-equivalent meaning. Other interaction contexts are more exclusive. The existence of selection rules that are part of the bilingual's communicative competence triggers a series of associations between a particular subset of structures and interaction context set A, between another and interaction context B, and so on. This association is what we identify as our socially constructed notion of a 'language' or a 'language system'. It is thanks to this socially-broadcast notion that bilingual children learn, around the age of 3, that they speak two 'languages'; until then, their use of word-forms and constructions is governed by a prolonged process of trial and error, usually unaccompanied by any explicit analytical labelling or other overt classification of the elements of their repertoire.

It is important to note that such clear association between structure and set of interaction contexts does not necessarily exist for each and every element of the linguistic repertoire. German-English bilinguals, for example, have only one single word-form for concepts such as INTERNET, DOWNLOAD, COMPUTER or even BABY (subjected of course to embedding in different phonological and morphosyntactic environments). By the same token, speakers of numerous Romani varieties have only one operator word-form in their repertoire that represents the function of the contrastive conjunction 'but' and often of other discourse particles and connectors (see Matras 1998), and speakers of Jerusalem Domari have an entire inventory of conjunctions, prepositions, comparative adjectives, most higher numerals, modality markers and more are shared with their principal contact language, Arabic (see Matras 2012b).

Such category-specific inseparability among the subsets in a bilingual's repertoire is part of the definition of 'borrowing' that I pursue in this paper. How does borrowing come about? And how is it linked to other contact phenomena? Language contact phenomena are seen in the model outlined here as the outcome of function-driven choices through which speakers license themselves, while interacting in a context of type B, to select a structure (word-form, construction, meaning, phonological features, etc.), despite its association primarily with interaction context set A. When claiming that choices are function-driven, I am not suggesting that selection of A-structures in B-contexts is necessarily always conscious, deliberate, or strategic. In fact, I propose that contact phenomena are arranged on a continuum, from those that are in fact not at all voluntary, indeed even counter-strategic in their origin, to those that are conscious and deliberate (for a detailed discussion see Matras 2009). All, however, are *functional* in the sense that they are the product of language processing in goal-oriented communicative interaction. The susceptibility of certain structural categories to contact-related change is therefore not accidental, but inherently bound to the function that those categories have and the way they support language processing in discourse. Contact phenomena must in this respect be seen as *enabling* rather than as *interfering* with communicative activity.

In the centre of the approach that I follow is thus the assumption that it is not languages that borrow structural material, but rather bilingual speakers that license themselves to employ the same or similar sets of structures in different communicative settings, thereby allowing sub-sets of their linguistic repertoire to undergo fusion, i.e. to be generalised irrespective of the choice of 'language' in a given interaction setting. The key to understand borrowing is to understand bilingual speakers' motivations to allow such fusion of sub-sets within their repertoire. Different motivations may affect different functional categories in different ways. A detailed mapping of borrowing motivations to categories is beyond the scope of this paper (but see Matras 2007, 2009 for details) and I will instead limit myself to just a few generalisations. Let us begin with the borrowing of vocabulary. The Loanword Typology project (Haspelmath & Tadmor 2009) delivers an interesting dataset that allows us to identify the hierarchical nature of lexical borrowing in cross-linguistic perspective. Loanwords have traditionally been explained as motivated by cultural innovations, by taboos (against the use of established words), and otherwise by the prestige of the donor or source language. But for those borrowings that are replacements of existing concepts rather than labels for new concepts, no explanation is offered as to why prestige should motivate loans in one domain but not in another, or why certain semantic constraints should work to resist borrowing.

Loanwords are bilingual speakers' way of adjusting their overall repertoire of lexical words and re-negotiating the constraints on the selective use of words in certain settings, or with certain interlocutors. The data provided in the contributions to the Loanword Typology volume (Haspelmath & Tadmor 2009) provide us with an opportunity to explore how this process of re-negotiating the bilingual lexical repertoire is related to the conceptualisation of reality. It appears that 'uniform' lexical material (i.e. lexical items that are generalised throughout the bilingual's repertoire and used irrespective of interaction setting or interlocutor, i.e. 'borrowed') is symbolic primarily of activities that are shared with another, neighbouring linguistic community: These may include commerce, religion, administration, and technology (whether the concepts are new, or established but replaced by loanwords). By contrast, personal and family experiences (body, emotions, space) remain conceptually protected and individualised, and this is reflected in the enduring separation of language-specific sets of relevant linguistic expressions within the bilingual repertoire, i.e. in the low rate of borrowing for these domains.

The borrowing of grammatical structures is representative of a somewhat similar conceptualisation of contrasts, as can be inferred from the cross-linguistic sample presented in the contributions to Matras & Sakel (2007; see discussion in Matras 2007, 2009) as well as from other samples (e.g. Elšík & Matras 2006). Functions that serve to negotiate attitudes among the participants in the interaction and which convey evaluations, assessments, the processing of presuppositions, or emotions, are particularly prone to borrowing: This includes information structuring at the level of the discourse and clause, the expression of modality and evidentiality in the verb and verb phrase, indefiniteness in the noun phrase domain, prosody in phonetics and phonology, discourse particles and phasal adverbs in lexical morphology, and comparative and superlative marking in attributes – all of which are hierarchically more susceptible to contact-induced structural change within their respective grammatical categories or paradigms. They represent bilingual speakers' need to align the emotional and presupposition-oriented side of negotiating communicative interaction across interaction settings.

This need is, of course, constrained by the social norms of communication in the speech community and the extent to which innovations may be licensed and consequently propagated. Invariably, a community whose bilingualism is unidirectional and which uses an in-group language primarily in informal and private or domestic settings, is more likely to adopt a more lax attitude toward contact-induced innovations. The frequently cited notions of 'prestige' or 'dominance' capture this realisation. Macro-level social constraints are thus crucial to determining whether individual innovations will lead to language change. But they are only of secondary relevance when it comes to predicting and explaining *which* innovations are likely to occur in the casual speech of bilinguals, and so which changes stand a chance of being propagated in the first place. The hierarchical nature of contact-induced change in both lexicon and grammar (cf. Matras 2009, chapters 7-8, Matras 2011) reveals that the motivation for innovation is functional in the first instance, and that it is driven by the role that categories play in triggering mental processing tasks in communicative interaction. In the lexicon, borrowing represents the fusion of structural material that represents shared concepts and values. In grammar, borrowing represents in the first instance fusion of the operational procedures through which speaker and hearer gauge attitudes to propositional content and monitor and control participant roles in interaction. It is thus around the more gesture-like, evaluative and cooperative aspects of communication that bilingual

speakers find themselves most tempted to eliminate the burden of having to select among structures in different interaction settings – in other words, to maintain a separation of 'languages' – and where fusion or uniformity of form-function representation seems most beneficial.

3. Alternatives to the borrowing of morphemes

In light of this view of contact-related language change, we must consider what functional roles are played by morphological paradigms, and what motivations speakers in bilingual situations may have to allow the sub-sets of their repertoire of structures – their 'languages' – to undergo fusion in the morphological domain. The mere import of lexical material does not necessitate the replication of morphological 'matter' (for the distinction between 'matter' and 'pattern' replication see Matras 2009), as borrowed lexical items are most commonly morphologically integrated. Indeed, morphological integration has famously been proposed as a key indicator of borrowing (Poplack, Sankoff & Miller 1988), while other approaches view language mixing as inherently constrained by a separation of lexical content words and grammatical or 'system' morphemes that are said to be resistant to mixing (Myers-Scotton 1993, 2002). Thus, English often assigns its own inherited adverb derivation procedure to French-derived adjectives and nouns: *common-ly*, *care-fully*, *comfortabl-y*. Creative morpho-syntactic procedures may also be applied to borrowed lexical material. Thus, the Hebrew equivalent of 'intelligently' is *be-ófen inteligénti*, literally 'in an intelligent manner'. Maltese and Lovari Romani, on the other hand, tend to rely on borrowing (i.e. matter-replication) of full adverbial word-forms from the respective contact language rather than apply creative word-class derivation processes: Maltese has *-ment* in Italian loans such as *verament* 'truly', *speċjalment* 'especially', while Lovari Romani has *-no/-nje* in Slavic loans like *specijalno* 'especially', *sistematičnje* 'systematically', and *objektivno* 'objectively'.

Domari offers a somewhat extreme but interesting case of 'bilingual suppletion' that is employed as an alternative to the productive borrowing (matter replication) of derivational morphology expressing degree (comparative and superlative) in adjectives. Its contact language, Arabic, employs a morpho-phonological template *áCCaC* to derive comparative/superlative forms from consonantal roots: *kbīr* 'big', *ákbar* 'bigger'; *zġīr* 'small', *ázġar* 'smaller'. This template cannot easily be isolated or integrated into the agglutinative-inflectional morphology structure of Domari, nor is it simple or even possible to break down Domari adjectives such as *tilla* 'big' or *kištota* 'small' into tri-consonantal roots for insertion into the Arabic-based derivation template. The solution adopted by Domari speakers is to borrow the full Arabic word-form for all comparative/superlative forms, resulting in complete borrowing-based suppletion of the inventory of adjectives: *tilla* 'big', *ákbar* 'bigger'; *kištota* 'small', *ázġar* 'smaller'. Structural factors relating to the transparency and analysability of morphemes thus play a role in constraining the productive transfer of morphemes from one language to another in this case. However, at the same time speakers adopt an alternative solution that serves the same purpose. The motivation to syncretise operational procedures that are carried by morphological structures across languages can thus be satisfied in ways other than a direct import of productive morphemes.

This principle is nicely illustrated by the prominence of morphological pattern replication, meaning the matching of pivotal functions of semantic

constructions to corresponding morphemes across languages (see Matras 2009). Morphological pattern replication rests on the role of morphological features in structuring and delivering constructions. In terms of motivation, it is a by-product of the trend to syncretise the inventory of constructions across the languages in a bilingual's repertoire. In structural and functional terms, pattern replication facilitates the generalisation of constructions across the repertoire while maintaining the overt separation of form. It thus allows speakers to continue to conform to and to flag the separation of language-specific interaction contexts and settings.

Khuzistani Arabic is a good example. It develops a remote past (pluperfect), a construction that is not inherited from Arabic, by calquing the use in the contact language Persian of an auxiliary 'was' (Matras & Shabibi 2007):

(1) a. Khuzistani Arabic:
         mən rəħ-ət   lə-l-bīet,   huwwa mā-rāyəħ   čān
         when went-1SG to-DEF-home he   NEG-going.SG.M was.3SG.M
     b. Persian:
         vaɣti raft-am   xūne, ūn na-rafte   būd
         when went-1SG home he NEG-gone was.3SG.M
         'When I went home, he had not [yet] gone away'

Northeastern Romani dialects – especially Russian, Lithuanian and Latvian Romani – have developed a construction that mirrors the distribution of functions among nominal cases in Russian. It is often found alongside the more conservative, inherited Romani construction (cf. also Tenser 2008):

(2) a. Northeastern Romani (conservative/inherited):
         me   na somas khere
         1SG.NOM NEG was.1SG home
     b. Northeastern Romani (convergent):
         man   na sys   khere
         1SG.OBL NEG was.3SG home
     c. Russian:
         menya   ne bылo   doma
         1SG.ACC/GEN NEG was.3SG.NEUTR home
         'I was not at home'

Heine & Kuteva (2005) identify contact-induced grammaticalisation as one of the major processes of historical change in language contact situations. Contact-induced grammaticalisation is understood as a change in distribution patterns and extension of meaning and functional environment, which replicate the features of a model construction in another language, which is the target of imitation (Heine & Kuteva 2005: 80). The above examples show precisely this kind of process for the extension of the Khuzistani Arabic copula-auxiliary *čān* 'was' as a pluperfect marker and for the appearance of the Northeastern Romani oblique pronoun *man* 'me' and the impersonal copula *sys* 'was.3SG' in the past-tense locative construction.

Pattern-replication may, however, give rise also to new structures of bound morphology. Bakker (2006) discusses the parallel grammaticalisation of location expressions into nominal case affixes in Sri Lankan Portuguese and Sri Lankan Malay. Kurdish and Neo-Aramaic, two contiguous languages of Mesopotamia, have

both developed split verb alignment structures that distinguish between transitive and intransitive agreement morphology in the past tense. This distinction can still be seen in some dialects of the respective languages, such as Kurmanji Kurdish of the northern Kurdish regions and the Jewish Neo-Aramaic dialect of Saqqez in Iran (own fieldwork):

(3)   a.   Kurmanji:
               ez   rabû-*m*   û   min   derî vekir
               1SG.NOM stood.up-1SG and 1SG.OBL door opened.ø
       b.   Saqqez Neo-Aramaic:
               qīm-*na*,   tara-kē   plix-*li*
               stood.up-1SG.ITR door-the opened-1SG.TR
               'I stood up and opened the door'

Here, both languages make use of a person-morpheme derived from the historical present-tense copula form – Kurmanji 1SG –*m*, Aramaic 1SG.M –*na* – to indicate subject agreement on the past-tense intransitive verb. At the same time, both languages develop distinct structures to indicate the subject of the past-tense transitive verb, each derived from a structure that encodes the oblique or non-nominative agent. In Kurmanji, the form is the independent oblique pronoun *min*. In Aramaic, it is the historical person-inflected dative preposition *l-i* *'for-me', which is now synthesised to the verb to express the agent of the transitive verb. The corresponding constructions in Kurmanji and Neo-Aramaic are thus not iso-morphemic. Rather, they share the mapping of pivotal functions onto morphemes that have related meanings and which are exploited for the purpose of syncretising the formal organisation of a semantic unit.

     The Mesopotamian (Kurdish and Aramaic) example shows that the process can lead not only to changes in the distribution and semantic meaning of forms, as seen in the cases of Khuzistani Arabic and Northeastern Romani, but also to the emergence of new inflectional morphemes. Mithun (2012: 35) explains similarities in the morpho-syntactic organisation of patterns across neighbouring languages in Northern California by referring to the sociolinguistic setting that was characterised by widespread multilingualism and flexibility in the choice of language, and the absence of strong differences in prestige among the languages of the area. Under these circumstances, the choice of speaking a particular language was manifested primarily in the lexicon, while abstract patterns of expressions are said to have been less likely to be under conscious control. This kind of scenario is well in line with the model outlined in the previous section. However, it does not explain specifically why certain inflectional morphemes are not borrowed if speakers are, as Mithun (2012: 15) asserts, "rarely conscious of bound morphemes".

     Clearly, there is a difference between the roles played in language processing by more abstract constructions, on the one hand, and by individual morphemes, especially inflectional morphemes, on the other. Speakers' ability to control the selection of items within a repertoire therefore differs. The selection of inflectional morphology seems to be very much a part of speakers' conscious choice in favour of one language or another in a given interaction context, even if one might argue that individual bound morphemes, unlike lexical items, are not consciously identified and selected on a one-by-one basis. Consider the following examples from Domari – both transcriptions of natural speech – along with the equivalent translations into the

contact language, colloquial Palestinian Arabic (for a discussion of data sources see Matras 2012b):

(4)   a.   Domari:

aktar	min	talātīn	xamsa	ū	talātīn	sana
more	from	thirty	five	and	thirty	year

ma	*lak-ed-om-is*
NEG	see-PAST-1SG-3SG.OBL

      b   Arabic:

aktar	min	talātīn	xamsa	ū	talātīn	sana
more	from	thirty	five	and	thirty	year

ma	*šuf-t-hā*
NEG	see.PAST-1SG-3SG.F

       'It has been more than thirty, thirty five years since **I've seen her**.'

(5)   a.   Domari:

hāda/	kān	ʕumr-*om*	yimkin	sitte	snīn
this	was.3SG.M	age-1SG	maybe	six	years

sabʕa	snīn
seven	years

      b.   Arabic:

hāda/	kān	ʕumr-*ī*	yimkin	sitte	snīn
this	was.3SG.M	age-1SG	maybe	six	years

sabʕa	snīn
seven	years

      'This/ **I** was maybe six or seven years old.'

Domari borrows a massive amount of lexical material, function words, morpho-syntactic organisation patterns and phonological features from Arabic. The density of shared material can clearly be seen by the comparison of the Domari data with the (constructed) Arabic translations in (4)-(5). The respective utterances are nearly identical. Yet Domari speakers, who are all bilingual, have no hesitation in identifying segments (4a) and (5a) as Domari, rather than Arabic. At the same time, they have no alternative way of expressing these sentences in Domari without drawing on Arabic-derived material. The similarities between the two languages in these two examples are therefore inherent to the (shared) structures of the two languages (through borrowing), rather than the product of context-bound stylistic choices (code-switches).

     What, then, does the choice of Domari as the language of the utterance rest upon in these two examples? In example (4a) it is limited to a single lexical item, *lah-* 'to see', which is accompanied by Domari (i.e. Indic, inherited) inflectional morphology indicating tense and subject and object agreement. In a way, this example is in line with Mithun's (2012) assertion that lexical choice may provide the more obvious manifestation of language choice, but with the caveat that all other lexical material in this particular utterance is actually shared with Arabic and therefore not in itself distinctively constitutive of speaking 'Domari'. Rather, it is the inflectional morphology indicating tense and person agreement that is uniquely and distinctively Domari and which carries the full weight of indicating language choice in this utterance. This is even more clearly visible in example (5), where the two segments with equivalent meaning, the Domari original and its Arabic translation,

differ solely in the choice of 1SG possessive marker on the word *ʕumr-* 'age', which is *-om* in Domari but *-ī* in Arabic.

This shows that there is a functional motivation to avoid the blurring of boundaries around inflectional morphology, as long as there is a motivation to maintain some sense of language separation in distinct interaction settings and contexts. As I stated in my opening remarks, inflectional morphology serves as the carrier for anchoring the predication and for identifying the predicate's argument structure. It is thus the backbone of the delivery mode (rather than the propositional content) of the utterance. As such, it lends the utterance its identity in regard to the multilingual speaker's efforts to accommodate to the expectations of language choice in a given communicative setting. The integrity of inflectional morphology, along with, to be sure, the preservation of some basic, distinctive lexicon, is the key to flagging language distinctness and thus the key to maintaining separation between distinct sets of communicative interaction settings, for example group-internal and group-external. In the case of Domari, a moribund language that is not being passed on to the next generation, it also distinguishes generation-internal from cross-generation communication. Meaning extension and grammaticalisation of morphemes, leading in some cases to the emergence of new bound morphology, enable speakers to maintain language separation while achieving maximum cross-language syncretisation among syntactic-semantic constructions. Much like the maintenance of basic lexicon, the preservation of morphemes serves to flag language loyalty. Having established that, I shall now devote the remainder of the discussion to the motivations and circumstances under which we do find substance or 'matter' borrowing of bound morphology.

4. Common morphological borrowings

The functional constraint on the borrowing of inflectional morphology – a reluctance to blur the fundamental way of distinguishing between languages in a situation of bilingualism – does not hold for bound morphology that is derivational in nature and which serves primarily to modify semantic meaning. Recent studies of morphological borrowing – e.g. Chamoreau (2012) on Spanish diminutive markers in Mesoamerican languages such as Yukatec Maya, Tosco (2012) on a French agentive marker in Piedmontese – add to a large pool of evidence of the borrowability especially of nominal derivation morphemes such as agentives and diminutives. Colloquial Modern Hebrew, for example, has adopted a series of agentive and diminutive suffixes from Yiddish. They include *-ist* (*bitsu'íst* 'doer', from *bitsúa* 'implementation'), *-er* (*širyon-er* 'tankist', from *širyon* 'armour'), and *-le* (*xamúdale, xamúdile* 'sweety (F/M)', from *xamud/á* 'sweet/cute'), as well as markers that had been borrowed into Yiddish from its Slavic contact languages, such as *-nik* (*kibútsnik* 'member of a Kibbutz') and *-čik* (*baxúrčik* 'a [nice, adorable] young man', from *baxúr* 'young man'). Hebrew is an interesting case due to its particular history as a language that has been re-vernacularised initially as the second language of the first generation of speakers in the early 1900s. Borrowed derivational markers are common in colloquial speech, but less so in formal, written styles of Modern Hebrew. The first generation of speakers of Modern Hebrew licensed themselves to make full use of certain word-derivational resources of their multilingual repertoires irrespective of interaction context; when speaking Hebrew they continued to draw on the same procedures as in their native languages.

The prominence of agentive and diminutive markers among borrowed bound morphemes can be attributed to the saliency of meaning differentiation in nouns, which in turn is connected to the prominent role of nouns as signifiers of topical entities, in particular of animate topics. But the borrowing of other derivational morphemes, for example those that are responsible for word-class changing derivation, is also well attested. Many Romani dialects show the suffix *-(i)mos* from Greek, which derives abstract nouns from Romani verbs and adjectives, e.g. *sastimos* 'health' from *sasto* healthy, *marimos* 'struggle' from *mar-* 'to fight'. Another suffix of Greek origin in Romani, *-to* (from Greek *-tos*, which also derives adjectives from verbs), derives ordinal numerals from cardinal numerals: *dujto* 'second', from *duj* 'two'. Both affixes are productive with the pre-European (Indic or Asian) lexical component of the language. The English suffixes *-able* and *-(e)ous*, both of Romance origin, are used to derive adjectives from nouns and verbs within both the Romance and Germanic lexical components: *feasible* alongside *loveable*; *courteous* alongside *righteous*, while *-ment* derives nouns from verbs, as in both *argument*, and Germanic-based *bereavement*.

The borrowing of a more subtle meaning derivation procedure is attested in the central and eastern European dialects of Romani, which adopt so-called Slavic Aspect markers and apply them to pre-European Romani verbal roots. This is modelled on the derivational procedures that are applied to the corresponding verb roots with equivalent meaning in the contact languages such as Polish, Slovak, and Russian: Polish Romani *za-pindžkirel* 'to introduce' from *pindžkirel* 'to recognise' (Polish *za-poznać* and *poznać*), *do-resel* 'to obtain' from *resel* 'to arrive' (Polish *do-stąpić* and *stąpić*), *pše-džal* 'to cross, climb over' from *džal* 'to go' (Polish *prze-chodzić* and *chodzić*). Here we have a wholesale adoption of the structural procedures of meaning derivation and a fusion of the two languages in contact in this domain, without disturbance to the inflectional morphology and so while maintaining the coherence and integrity of the verbal predication.

In other areas we come across morphological borrowing in the domain of meaning derivation that does, however, have potential implications for syntactic processes such as agreement marking in the clause, and which thus infringes on the role of inflectional morphology. Vietnamese, Korean and Japanese have all borrowed nominal classifiers from Chinese. Rose (2012) reports on the borrowing of Cariban markers of plurality and collective number into Tupi-Guarani languages. Some Neo-Aramaic dialects borrow the Kurdish indefinite article, and some Romani dialects borrow indefinites articles from their respective contact languages Italian and Albanian. Plurality markers on the noun are probably the most frequently attested inflectional morphemes that are borrowed (cf. Gardani 2012). While in English plurals like *phenomena* and *fungi* are limited to a marginal inventory of borrowed lexemes (cf. discussion in Kossmann 2010), in Vlax Romani the Romanian-derived plural form *-uri* is productive and accompanies loans from subsequent contact languages, while in Jordanian Domari the Arabic derived feminine plural ending *-āt* diffuses into inherited material, irrespective of gender: *lāčiy-āt* 'girls', *putr-āt* 'boys' (see Matras 2012: 17).

Plural markers belong to the class of grammatical markers that Myers-Scotton & Jake (2000) define as 'early system morphemes'. It is hypothesised that they emerge 'earlier' in the production process of the utterance and that they therefore occupy an intermediate position between lexical meaning ('content morphemes') and sentence-level inflectional morphology ('late system morphemes'). The nomenclature does not offer an obvious explanation for the tendency of plurality

markers (as well as other number markers and classifiers, and markers of definiteness) to be more prone to borrowing than, for instance, case or person morphology. But if we consider the information value of number and definiteness, we can regard them as categories that modify the content meaning of a lexical item – independently, potentially, of that item's role in the predication as a whole. Fusion of meaning modification procedures across languages does not, as we have established, interfere with the language-specific integrity of the predication. One piece of evidence in support of this impression is the treatment of plurals as part of the lexical stem (rather than as an inflectional ending) in borrowed words. Jerusalem Domari adds its own inherited plural formation to Arabic-derived plural nouns: singular *zálame* 'man' (Arabic singular *zálame),* plural *zlām-é* (Arabic plural *zlām*). Simango (2000:494) reports on a similar reinforcement of English plural forms through native plural affixes in Chichewa: *ma-refugee-s* 'refugees'. A similar phenomenon is the doubling of definite articles in Spanish loanwords from Arabic: Spanish *el arroz* 'the rice' (Arabic *ar-ruzz* 'the rice').

A case can be made therefore that inflectional morphology is more likely to be borrowed if it is re-interpreted as derivational, i.e. as modifying meaning rather than syntactic role. An excellent example is provided by the adoption of Greek tense-aspect markers into Romani. The Greek system distinguishes, for individual inflection classes, between a present and a past or aorist stem of the verb: Greek *jir-íz-o* 'I return', *jír-is-a* 'I returned'. This stem distinction is carried over into Romani, where, however, it is reinforced by inherited (Indic) Romani tense-aspect morphology, which similarly distinguishes a present stem (by default, through the absence of any stem modification) and a past or perfective stem (represented by a past or perfective marker, often *-d-*, *-l-* or *-j-* depending on inflection class and dialect). The Romani rendering of the Greek-derived loan verb 'to return' is thus *jir-iz-av* 'I return', *jir-is-áj-l-om* 'I returned'. It preserves the Greek tense-aspect distinction in the stem (*-iz-/-is-*). It then adds to it Romani subject agreement markers (1SG present tense *-av*, 1SG past tense *-om*) and, in the past tense, a past-perfective marker *-l-* that attaches to what appears to have served as a light verb integration strategy for loan verbs, based on the verb *-a(v)-* 'to come/to become' (for details see Matras 2002, Ch. 6). This strategy appears to have emerged during the Early Romani period, in contact with Byzantine Greek. It is still found in the dialects of Romani that are spoken in Greece (by those who have been settled in the country continuously), such as the Romani dialect of Parakalamos: *vojt-iz-av* 'I help', *vojt-is-áj-l-om* 'I helped'. But it was also retained in other regions of the Balkans following the fall of the Byzantine Empire and the shift to other contact languages. The dialects of some of the Muslim Romani groups in Bulgaria, such as the Kalajdži and Kalburdžu, use this same Greek-derived template to adopt past-tense stems of Turkish verbs into the Romani inflectional paradigm: *anlad-iz-av* 'I understand', *anlad-is-áj-l-om* 'I understood'. Some of the Romani dialects of southeastern Romania, such as the Spoitori, use it to integrate Romanian-derived verbs, as in *konduč-iz-av* 'I drive', *konduč-is-áj-l-om* 'I drove', while in some of the Macedonian Romani dialects, like Kovački of Skopje, it is used for Macedonian-derived verbs, as in *piš-iz-ava* 'I write', *piš-is-áj-(l)-um* 'I wrote'. Other Romani dialects, including those that are spoken outside the Balkans, either preserve a similar system, drawing on the same or other Greek-derived tense-aspect markers (often present-tense *-in-*), or simplify the system, usually maintaining some derivational morpheme that indicates the adaptation of a loan verb stem into the

language and which mediates between that stem and the inherited Romani tense-aspect and person inflection.

How can we explain the Romani patterns in terms of our usage-based model of language contact and contact-induced language change? The integration of borrowed verb forms into the inherited Romani tense-aspect and person agreement paradigm indicates that even in a situation of intense bilingualism in a geographically dispersed minority language (spoken by a population with no political power, few institutional resources, and low social prestige), flagging language identity through the choice of predication grammar was sufficiently important to maintain the inherited inflectional morphology with such loans. The adoption of Greek-derived tense-aspect marking and its continuing productivity long after contact with Greek was interrupted suggests that Greek tense-aspect morphology was associated with the context-bound meaning of the verb, rather than with the initiation procedure of the predication itself. Subsequently it began to serve as an integration template, bridging between the lexical content of borrowed verb roots and the language's predication grammar. What began in Greek as an extension of the verb that identified both inflection class and was itself a carrier of tense-aspect inflection, was adopted into Romani purely as a derivational marker that identified the Greek (and later European) origin of the verb root. Although the markers continue to be sensitive to tense-aspect, at least in some Romani dialects, they are always reinforced by inherited Romani tense-aspect markers, and so their original inflectional potential is lost.

5. Cross-language morphological analogy

Few cases of borrowed inflectional morphology are convincingly attested in the literature. This is not to say that there are no exceptions. Having now established why speakers are less motivated to borrow inflectional morphology (compared to their motivation to borrow other, emotional-attitudinal categories of language), and why speakers are, in addition, inhibited to borrow inflectional morphemes (seeking to avoid ambiguity in the identity of the predication, which in a bilingual situation is both symbolic and constitutive of language choice), I now turn to the more exceptional cases. Exceptions do not question the validity of the generalisations made above about borrowing. Rather, they confront us with cases that merit special investigation with a view toward identifying the special factors that might override what are common, function-oriented constraints and principles, or which might facilitate borrowing even in structural environments that are normally less susceptible to contact-induced change.

One such factor is the coincidental similarity between the form-structure of functionally corresponding elements in the two languages, and a perception, arising from this similarity, that these corresponding forms are in fact identical or near identical. Bilinguals' spontaneous choices are sometimes influenced by formal similarities among functionally related elements in their languages. This can be illustrated by the following examples (from own fieldwork):

(6)   German (spoken by an English-dominant child, 7 years old)
        Er   ist   grösser denn   mir
        he   is   bigger PART   me.DAT
        'He is bigger than me'

(7)   Hebrew (spoken by a child with frequent exposure to Arabic, 5 years old)
        ra'íti   et   ha-xayá   ha-zot
        saw.1SG   ACC   the-animal   the-this
        'I saw this snake'

In (6), the child (who speaks German to his mother in what is otherwise an English-speaking environment) uses the words *denn mir* for 'than me' instead of German *als ich*. The choice is facilitated, of course, by a lack of confidence in German grammar and lack of exposure to the specific task-routine in German, which requires this particular German construction. In his attempt to replicate the English construction in German, the child draws on functionally related elements in German that have a similar formal shape: the discourse particle *denn* (which in spoken German has primarily prompting functions), and the dative pronoun *mir*. In (7), the child is a native speaker of Hebrew who attends an Arabic-speaking nursery. He is referring to a snake (Arabic *ħayya*), but selecting the formally similar Hebrew word *xaya* 'animal'. In both examples, the corresponding pairs are formally similar but also semantically or functionally related in some way (and in each of the language pairs also etymologically related).

Formal similarities among functionally related inflectional morphemes may trigger similar analogies that can facilitate borrowing. In Maltese, adjectives that are borrowed from Italian are generally adopted into the inherited (Semitic) inflection patterns and retain gender and number agreement with borrowed Italian nouns. Maltese adjectives follow the noun, as they normally do in the principal contact language, Italian (and Sicilian). Like Italian, Maltese too has two genders. Borrowed adjectives that end in a consonant take the inherited (Semitic) inflection pattern, in which the M.SG is treated as default and has no identifiable vocalic ending, while the F.SG ends in -*a*:

(8)   a.   Maltese:
                f'kuntest modern
                in context modern.M
        b.   Italian:
                in un contesto modern-o
                in a context.M modern-M
                'in a modern context'
(9)   a.   Maltese:
                poeżija modern-a
                poetry modern-F
        b.   Italian
                poesia modern-a
                poetry modern-F
                'modern poetry'

Both the form and the position of the Maltese feminine singular adjective happen to agree with the form and position of the feminine singular adjective in Italian. This triggers an analogy with the plural, where the Italian inflectional ending -*i* (Italian M.PL) is preserved on adjectives that are borrowed from Italian: *toroq modern-i* 'modern roads' (*toroq* being a Semitic noun). Stolz (2012) discusses the case of Spanish loan adjectives in Chamorro. Here too, there is no indication that bound

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inflectional morphemes from Spanish are diffused 'backwards' into the inherited Austronesian vocabulary. While no obvious analogy is at work in the Chamorro cases, the retention of adjective inflection on Spanish loans is a case of morphological compartmentalisation (see below).

Third person pronouns in some Romani dialects adopt the plural inflection markers of the contact languages, a process that is triggered by the coincidental similarity between the form of the inherited pronoun in Romani and the respective pronominal forms of the contact languages Hungarian, Slovene, and Turkish, which are all unrelated either to one another or to Romani. The original Romani third person pronouns are *ov/oj* 'he/she', and *on* 'they'; they appear in most Romani dialects, sometimes with minor phonological stem modifications. The form of the third person plural pronoun in some varieties of Hungarian Romani (Romungro) is *on-k*, which replicates the plural ending of the Hungarian third person pronoun (singular *ő*, plural *ő-k*). In Slovenian Romani (Dolenjski), the form is *on-i*, replicating the pronominal form in Slovene (singular *on*, plural *on-i*), and in some varieties of Thracian Romani that are or were in contact with Turkish (Kalburdžu, Xoraxane and others) the form is *on-nar*, replicating the Turkish structure (singular nominative *o*, singular oblique *on-*, plural *on-lar*). It is noteworthy that in all three contact languages, the ending that is used to indicate plurality on the pronoun is also the ending that is used to indicate plurality on nouns. It is thus arguably situated in the intermediate domain between meaning-derivational and inflectional morphology in the sense discussed above. A comparable case might be Asia Minor Greek (Dawkins 1916: 59ff.), where the Turkish 2PL -*iniz*, which in Turkish is used to mark 2PL possession on nouns and 2PL in both the present copula and past-tense lexical verbs, is added to the Greek past-tense paradigm of inchoatives and medio-passives.

Another development in Romani dialects, found in Crimean Romani and in some of the Romani dialects of northern Bulgaria, shows the borrowing of parts of the person concord set from Turkish (cf. Elšík & Matras 2006: 136). This results from an analogy that is based on chance similarities between the inherited Romani and Turkish conjugations. The inherited Romani past-tense concord markers contain the consonant -*m* in the first person (singular -*om/-em/-im*, depending on dialect, plural -*am*) and a consonant -*n* in the second person (singular -*an*, plural -*en*). They resemble the corresponding Turkish singular forms 1SG -*Vm* and 2SG -*Vn* (with variation subject to vowel harmony). The Turkish plural pronouns are augmented forms of the singular morphemes: 1PL -*VmVz*, 2PL -*VnVz*. By analogy, these Romani dialects form a past-tense 1PL concord marker -*amus* and a past-tense 2PL marker -*enus*. Here too, the agglutinative marking of plurality in the contact language makes the marker -*us* analysable. It is replicated in Romani with inherited verbs, replacing the original marker (which is preserved in other dialects of the language). Slovene Romani (Dolenjski), too, shows this kind of process. Here, the original Romani past-tense 1PL marker -*am* has been replaced by the corresponding Slovene affix -*amo* on the basis of the formal resemblance between the two. The analogy is then extended to the Romani 2PL (originally -*an* or -*en*), for which the Slovene affix -*ate* is adopted (which has no formal resemblance to the original Romani form).

6. Morphological compartmentalisation

Above I defined language contact as the conventionalisation of bilingual practices through which bilingual speakers generalise a structure or an entire category of structures across their linguistic repertoire, leading to 'fusion' or the inseparability of languages around that particular structure or category. The motivation behind the process is to syncretise language processing procedures in the bilingual's languages, in other words, to reduce the need to select between competing sets of functionally equivalent or near-equivalent structures in different interaction settings or contexts. From a user perspective, fusion is thus functionally motivated. The motivation to syncretise procedures across languages is balanced off and constrained by a sense of language loyalty, which, at the same time, motivates bilingual speakers to maintain adequate means of separating their languages as a way of flagging accommodation to distinct interaction settings. I have argued that inflectional morphology plays a central role in flagging such separation. It encodes the predication and its arguments and so it serves as the delivery mode for the proposition as a whole. It is the predication that reflects, represents and indeed which verbally constructs an interaction setting as flavoured in particular way. Where alternational codeswitching is involved, it is the predication that flags an utterance as set against the contextual expectations – what Gumperz (1980) has called 'metaphorical juxtaposition of languages', and what Myers-Scotton (1993, 2002) refers to as 'marked' language choices. The borrowing of inflectional morphology is constrained due to the role that inflectional morphology plays in maintaining language differentiation in bilingual situations.

My final point concerns a further exception to this norm: the compartmentalisation of inflectional morphology. I begin with examples from Jerusalem Domari. Here, extensive borrowing from Arabic leads to the wholesale adoption into Domari of, among other structures, almost all the forms that participate in indicating modality and 'relevance' (in the sense discussed by Blakemore 2002). One can therefore speak of a fusion of the procedures for marking modality in Domari and Arabic. From the point of view of the pragmatics of communication, 'Domari' speech is characterised and is identifiable through the choice of various structures, but these do not include modality markers; much like for a German-English bilingual, the distinction between the languages is manifested by the choices made around numerous grammatical and lexical structures, but not around the words *internet* or *baby*, which are identical in the two languages. What is remarkable (though not unparalleled) is that Domari adopts Arabic modal expressions along with their Arabic inflectional morphology, which remains fully productive in Domari (data from Matras 2012b; Arabic-derived modal elements are italicised):

(10) ama   *bidd-ī*   dža-m   kurya-ta
      I   want-1SG   go-1SG   house-DAT
      'I want to go home'

(11) putr-or   *ḍall-o*   fumn-ar-i   ben-im
      son-2SG   remain-3SG.M   hit-3SG-PRG   sister-1SG.OBL
      'Your son keeps beating my sister.'

(12) *ṣār-u*   fēr-and-i   baʕḍ   baʕd-ē-san   waṭ-an-ma
      began-3PL   hit-3PL-PRG   REFL   REFL-PL-3PL   stone-OBL.PL-LOC

'They started to throw stones at one another'

The Arabic person-agreement markers 1SG -*ī* , 3SG.M -*o*, and 3PL -*u* accompany the nominal modal expressions *bidd-* 'want' and *ḍall-* 'keep' and the verb *ṣār-* 'to begin', respectively. Their antecedents are all part of the Domari utterance or conversation context, and in examples (10) and (11) they are even verbalised explicitly through inherited (Indic) Domari expressions (*ama* 'I' and *putror* 'your son', respectively). The wholesale borrowing of Arabic modal and auxiliary expressions also extends to the marker of habitual aspect, which, as in Arabic, draws on the inflected Arabic past-tense copula *kān-* 'was':

(13) pandži *kān-at*   awa-ri   nkī-s   kull   yōm
      3SG   was-3SG.F   come-3SG   at-3SG every day
      'She used to arrive at his house every day'

Note that the auxiliary form *kān-at* in (13) agrees with the third person pronoun subject *pandži* in both number and gender. However, Domari *pandži* does not encode gender. The adoption of Arabic inflection patterns in the copula thus introduces a gender agreement pattern into Domari which otherwise would not be encoded in the language.

Since the full inflection patterns are adopted from Arabic – including person agreement and tense (full modal verbs such as *ṣār-* 'to begin' are also inflected for tense) –, Domari has, in effect, a split in its verb inflection paradigms. Lexical verbs, whether inherited (pre-Arabic) or borrowed from Arabic, draw on the paradigms of one of several pre-Arabic (Indic) verb inflection classes. Modal expressions (with the exception of inherited *sak-* 'to be able to') draw on one of two principal Arabic inflectional paradigms, verbal or nominal. The language thus exhibits morphological compartmentalisation. Nonetheless, even in this particular case it would be a simplification to speak of the 'borrowing' of Arabic inflectional morphology into Domari, since the plain term 'borrowing' does not quite capture the extent to which speakers rely on their Domari-Arabic bilingualism when using these forms: From a communicative perspective, what Domari speakers are doing is failing or avoiding differentiation between the procedures for indicating modality in their two languages. In their bilingual repertoire there exists only a single format for marking modality (for all semantic relations except for 'to be able to'). Arabic inflectional morphology remains confined strictly to this function: it anchors modal and aspectual auxiliaries in relation to the lexical predication. The morphological marking of the lexical predication (verb inflection) and its arguments (nominal inflection) continues to be carried exclusively by the coherent set of inherited (Indic) inflectional morphology.

Domari is not the only language in contact that adopts modal expressions along with their inflection. The Romani dialect of Parakalamos in the northwestern Greek province of Epirus shows a similar tendency. Here, however, the split in morphological paradigms is being extended through the incipient use of Greek

inflection also with Greek-derived lexical verbs (items carrying Greek inflection are italicised):[1]

(14) na *bor-o* te *diavaz-o* soske *prepi* te vojt-iz-av
      NEG can-1SG COMP study-1SG because must   COMP help-LOAN-1SG
      me   daj-a
      my.OBL mother-OBL
      'I cannot study because I have to help my mother'

Parakalamos Romani thus resembles Jerusalem Domari in that procedures that modify lexical predications – modals – are fused with the contact language. In examples (14) this included the impersonal *prepi* 'must' and the modal verb *bor-* 'to be able to', which takes productive Greek verb inflection. The treatment of Greek-derived lexical verbs is mixed. Some, like *vojt-iz-av* 'I help', are integrated into the inherited (Indic) Romani inflection paradigm. Others, in this example *diavaz-o* 'I study', retain their Greek inflection. This appears to indicate an incipient breakup of the integrity of the Romani predication and a blurring of the distinction between interaction settings and their mapping onto 'languages' in the bilingual community's repertoire. This is very much in line with the community's self-presentation in narrative interviews and informal conversations, where their Romani identity is strongly aligned with their identity as settled Greek musicians (cf. Theodosiou 2004). The community has few links to other Romani populations, and indeed members tend to distance themselves from the segregated Romani minority. They regards themselves as integrated into the local Greek village community, and loyalty to their group language does stand in contradiction to this view. The discretion that speakers appear to be using in the domain of constructing the predication – allowing Greek predications to be mixed with Romani predications for no obvious stylistic effect – seems to be both a product and a symbolic token of this language ecology (see Matras 2008).

The long-term effect of this kind of process can be seen in other Romani dialects of the Balkans, notably the dialects of Muslim Roms who have been living amongst Turkic-speaking minorities (see Matras 2002 and 2008, Adamou 2012). In these varieties, bilingual speakers regularly draw on Turkish verb inflection when using Turkish-derived lexical verbs. Unlike the Parakalamos example, in the dialects of the Muslim Roms of the Balkans this pattern is highly conventionalised and is not subject to speakers' choices. It is not, as in Parakalamos Romani, merely a token of the relaxation of the rules on the integrity of the predication and boundaries of 'languages', but an integral part of the structure of their Romani dialect. Turkish verb inflection is formalised with all Turkish-derived lexical verbs. The following examples (cf. Matras 2008) come from the Kalburdžu Romani dialect of Sindel in Northeastern Bulgaria (Turkish-derived inflected verbs are italicised):

(15) teara   kan   *bittir-iim*   adaja buki o zaman
      tomorrow   FUT   finish-1SG   this   work then
      bitaa kan   dža-v   an   e   ga-ete

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[1] Data on Romani dialects are taken from the Romani Morpho-Syntax Database:

http://romani.humanities.manchester.ac.uk/rms

again FUT go-1SG in the village-LOC
'Tomorrow I will finish this job. Then I will go back to the village.'

(16) pandž-e daka-en-da sona *bašla-də* te konušu-i
five-OBL minute-OBL.PL-ABL after began-3SG comp talk-3SG
'After five minutes he started to talk.'

(17) ana *etišt-im* othe dikhl-em ani naj khere
when arrived-1SG there saw-1SG that is.not home
'When I got there, I saw that s/he wasn't home.'

The Turkish-derived *bittir-* 'to finish', *bašla-* 'to begin' and *etiš-* 'to arrive (punctually)' carry (dialectal) Turkish person inflection (1SG –*im*, 3SG -*ə*) as well as Turkish tense-aspect inflection (past tense –*t-/-d-*). The Turkish verbs in (15) and (16) are both part of the extended domain of modal auxiliaries, yet their morphological inflection pattern in the Romani dialect is Turkish-derived, just like that of all Turkish-derived lexical verbs such as *etiš-* 'to arrive (punctually)'.

Kalburdžu Romani thus displays consistent compartmentalisation in its verb inflection morphology. Turkish inflection is used consistently with Turkish-derived verbs, but it is contained within this particular group of verbs and does not infiltrate the inherited domain of pre-European (or even Slavic- or Greek-derived) lexical items. These carry inherited Romani (Indic) inflection. Note that Kalburdžu Romani retains, by and large, the normal word order of Balkan Romani dialects, and does not adopt verb-final order from Turkish. What might motivate speakers to adopt Turkish verb inflection despite the constraints discussed above on maintaining predication integrity in bilingual situations? It appears that the key to the process is the acceptance of Romani-Turkish bilingualism as a constituting aspect of group identity. Both languages are spoken interchangeably in the home as well as within the immediate community. When asked in the majority language, Bulgarian, to answer a question in *ciganski* (i.e.'the Gypsy language'), consultants working with fieldworkers of the Romani Project in Manchester (http://romani.humanities.manchester.ac.uk) often responded in Turkish rather than in Romani.

This full acceptance of bilingualism and the fact that there is, effectively, no domain separation and no contextual demarcation between Romani and Turkish in community-internal interaction, blurs the boundaries within the bilingual repertoire. It grants speakers a license to initiate the predication at least in group-internal communication in either language, regardless of any stylistic affect or accommodation-driven goal. When choosing a particular lexical verb, speakers are thus at liberty to employ the finite verb inflection system that is most easily associated with that verb. Full bilingual proficiency throughout the community supports these choices and helps to maintain a 'double' system, at least for a certain period. In the Romani dialect of Ajia Varvara in Greece (Igla 1996), Turkish verbs retain Turkish inflection several generations after emigration from Turkey and loss of competence in Turkish. However, the number of verbs conjugated in this way remains small. This is also the case in Crimean Romani, which had been influenced by another Turkic language, Tatar.

Even these rather exceptional cases do not exemplify the diffusion of borrowed morphological inflection markers into the inherited component of a recipient language. Instead, what we have here is a compartmentalisation within the

language's morphology with borrowed morphology being incorporated on a wholesale rather than selective basis, but at the same time limited to just a particular set of lexical items, namely those that are themselves borrowed. Full community bilingualism and a strong sense of a hybrid identity – as 'local Greek Gypsy musicians', and as 'Turkish Gypsies', respectively – are the sociolinguistic triggers and apparently also the pre-conditions for the relaxation of the constraints that usually prevent any significant compromise on the integrity of inflectional morphology in the predication.

Romani shows at least two other noteworthy cases of borrowed inflectional morphology. All Romani dialects use the Greek-derived nominal ending *-o(s)* and some also *-i(s)* with Greek-derived masculine nouns as well as with masculine loan nouns that are borrowed from subsequent European contact languages (through contacts that followed the dispersion of Romani populations from Byzantium around the late fourteenth century), e.g. *prezidentos* 'president'. Some Romani dialects replicate the Greek third person singular conjugation ending *-i* with borrowed verbs, in a similar fashion. The adoption of the borrowed markers for use with borrowed vocabulary from new contact languages testifies to their productivity in the language. Nonetheless, in both cases they serve to maintain the compartmentalisation of the language's lexical components. In this way, somewhat paradoxically, the blurring of the boundaries between Romani and its earlier contact language Greek (which enabled the borrowing of these Greek markers) now actually serves to sustain the boundary between Romani and its subsequent contact languages by identifying non-inherited vocabulary as belonging to a distinct inflectional class (cf. the Korlai Portuguese case discussed by Clements & Luís, this volume).

My final example concerns another type of morphological compartmentalisation. It resembles the first, exemplified by the Romani dialects of the Balkans (examples 15-17), in two aspects. Firstly, here too borrowed morphology is used on a wholesale basis by adopting a full morphological paradigm rather than just individual inflectional markers. Second, here too borrowed morphemes appear in very strict distribution, accompanying only borrowed lexical items. The examples are a sub-set of what is now commonly referred to as 'Mixed Languages' (cf. Bakker & Mous 1994; Bakker & Matras 2003). The candidates are a number of small community languages from the Canadian Prairies (Michif), the North Pacific (Copper Island Aleut), and Australia's Northern Territory (Gurindji Kriol and Light Walpiri). Unlike the cases of the Romani dialects of the Balkans, these languages show a tendency toward an etymological compartmentalisation of inflectional morphology among word classes and not just among lexical items within the same verb class. In all four cases the division is between nominal and verbal inflectional morphology. In Michif (Bakker 1997), lexical verbs and verb inflection derive from Cree, while lexical nouns and nominal inflection derive from French. In Copper Island Aleut (Golovko & Vakhtin 1990), the speakers' stronger language appears to be Russian, but in their in-group variety they integrate Aleut nouns and nominal constructions along with their Aleut nominal inflection. Gurindji Kriol (McConvell & Meakins 2005; Meaking, this volume) and Light Walpiri (O'Shannessy 2005) both employ verbs and verb inflection from Kriol, an English-based Australian creole, but they integrate nouns and nominal constructions along with their nominal inflection markers from the respective Australian Aboriginal languages, Gurindji and Walpiri.

Before discussing examples for this kind of compartmentalisation we need to briefly review what Mixed Languages are and how they come about. One of the

varieties often cited in the literature as a Mixed Language is so-called 'Angloromani' (users usually refer to this form of speech as 'Romanes', 'Romani', or 'English Romanes'). Structural compartmentalisation in Angloromani is quite straightforward (cf. Matras 2010): Grammatical structures are exclusively based on English. The exceptions are occasional relaxation of some of the rules of English morpho-syntax, in particular omission of definite articles and of the present-tense copula in short utterances that convey mostly warnings or directives, and use of an independent negator *kek* in pre-verbal position without the auxiliary 'do' (*kek jins* 'doesn't know', literally 'no knows'). The principal characteristic feature of Angloromani is the insertion of Romani-derived lexical vocabulary into English utterances:

(18)   Maw rokker, let mandi rokker, til ya chib!
       'Don't talk, let me talk, cut your tongue!'

(19)   We call a bad rakya what likes loads of mushes a 'chikla luvni'
       'We called a bad girl what likes loads of men a 'dirty whore'.'

(20)   Jel cause mandi's gonna del dobba akai!
       'Go away cause I'm gonna hit this one here!'

Thomason & Kaufman (1988: 103) had described Anglo-Romani as a case of "inherited vocabulary, borrowed grammar", where "the entire grammar has been borrowed (in effect) from English" (ibid., 7). This depiction can only be supported if under 'borrowed' we were to understand a process by which a population maintains its ethnic identity but loses its ethnic community language. Thus the English Gypsies, who until the second half of the nineteenth century spoke Romani as their community language in domestic contexts, but then shifted to English, would be described as having 'borrowed' English (but maintained sporadic use of Romani-derived vocabulary). This definition is tricky. If followed consistently, it could lead us to characterise the population of Ireland as having 'borrowed English grammar and vocabulary' but maintained Irish prosody and some elements of Irish information structure, along with individual vocabulary items from Irish. The more attractive way to understand Angloromani is as a case of language shift. There is no evidence of any wholesale borrowing of English grammar into English Romani. Documentation of inflected Romani in Britain from before the mid-nineteenth century shows borrowing of English lexicon, some derivational morphology, a few semi-bound morphemes such as genitive *-s* as well as the noun plural ending *–s* (see Matras 2010). This extent of grammatical borrowing is well attested in other Romani dialects as well.

Angloromani emerged when Romani was abandoned by a younger generation of speakers. These speakers retained a selection of Romani vocabulary as a stylistic device. (Individual middle-aged users now know on average around 350-450 vocabulary items.) It is used as a kind of group-internal emotive mode of speech, sometimes but not exclusively in order to conceal the content of the conversation from non-Romani bystanders. Most importantly, users of Angloromani employ Romani-derived lexical items by choice and at their discretion within their English discourse. Angloromani is therefore not a case of wholesale grammatical borrowing from English. It is rather a case of occasional and selective insertion from among an

inventory of special vocabulary items, derived largely from Romani, into English conversation.

We might interpret the emergence of other so-called Mixed Languages along similar lines. The younger generation has adopted the language of the surrounding speech community as its principal everyday language, but retains some knowledge of the heritage language used by the older generation. Younger speakers develop a mode of speech through which they flag their loyalty to their community heritage, inserting lexical items from this language into their default everyday language. These items are accompanied by inflectional morphology that is replicated from the source language.

Nouns appear to be, as stable referents, more attractive targets for regular emblematic insertions of this kind. They are accompanied by nominal morphology, which eventually, becomes the conventionalised grammatical feature of the mixed variety:

(21) Light Walpiri (O'Shannessy 2005: 49-50) (Walpiri-derived items are italicised):
fence-*rla* yu-*rra* shat-im-ap *ngula-j*
fence-LOC 2SG-NFUT shut-TR-up ANAPH-FOC
'Lock *that one* up *inside* the fence.'

(22) Gurindji Kriol (McConvell & Meakins 2005: 11) (Gurindji-derived items are italicised):
nyawa-ma wan *karu* bin plei-bat pak-*ta* *nyanuny warlaku-ywaung-ma*
this-TOP one child PAST play-CONT park-LOC 3SG.DAT dog-HAVING-TOP
'*This* one *kid* was playing *at* the park *with his dog.*'

Where speakers have access to the inflectional morphology of the 'older' heritage language, its use allows them to authenticate lexical insertions from that language. In Copper Island Aleut, the effort to flag selective replication of the heritage language in a situation of language shift is characterised by an additional social feature, namely the gender split in the parent generation (the mothers are Aleut-speakers, the fathers are Russian). The founder generation of Michif speakers based their utterances on Cree, the language of their mothers, for verbal predications, while selectively replicating nominal lexicon from French, the language of their fathers. This French lexicon was authenticated by French-derived nominal morphology. In Michif this compartmentalised mode of speech was eventually conventionalised and exceptionally transmitted further across several generations.

While the sociolinguistic profiles vary, in all these cases of morphological compartmentalisation based on word class, it is the nominal or argument morphology that is replicated from the 'weaker' language, while the verb or predication morphology appears consistently in the 'stronger' language: Gurindji Kriol and Light Walpiri represent cases of language shift from the 'old' heritage language to a 'new' community language, Kriol, formed during the process of socio-cultural immersion and a partial erosion of traditional ethnic community structures. Copper Island Aleut represents the adoption of Russian colonial culture in the region. Michif represents the prevalence of a first nation identity in a community that absorbed a small population of French settlers. Angloromani, of course, matches this pattern, too: Verb inflection is consistently English, the target of language shift.

The question arises why, in those cases where morphological compartmentalisation occurs, is it specifically nominal morphology that is incorporated from the 'weaker' language? The answer lies, in my view, once again in the role of the predication as the carrier of the propositional content of the utterance. The language of the predication is the language of the utterance. When multilingual speakers are under pressure to make a choice rather than maintain stable bilingualism, they flag that choice through the grammar of the predication. The predication language flags their preferred sense of belonging in the subtle hierarchy of competing identities. We find compartmentalised inflectional morphology in a few communities in which language practices symbolise speakers' reluctance to renounce their hybrid identity entirely. Loyalty toward a second heritage language is flagged by authenticating lexical insertions through inflectional morphology in a way that does not rupture the integrity of the predication. Remarkably, there is no known Mixed Language that shows an etymological split among tenses, persons, aspects or other features of the grammar of lexical predications, or where verbal and nominal inflection paradigms are not compartmentalised but randomly mixed from both etymological sources (some Mixed Languages, like Angloromani, Media Lengua, and Maa, are of course consistent in showing inflectional morphology from just one source language and derive just their lexicon from another). Even the extraordinary structural profiles of Mixed Languages are therefore not random outcomes of 'lenient' attitudes toward language mixing, but products of constraints on language processing and the functional roles that structural categories have in communication. Given the motivation to align the grammar of the predication (represented by inflectional morphology on the verb) with the language that is gaining or maintaining stronger ground, speakers are left to draw on nominal inflectional morphology if they wish to consciously authenticate insertions as a way of flagging ethnic hybridity or split cultural loyalties. In the case of Angloromani, where a similar motivation may have been behind the emergence of a mixed code with English as the predicate language, the option of authenticating lexical insertions by drawing on Romani nominal inflection was not available, since English Romani had lost most of its nominal inflection even before Romani was abandoned as the default language of domestic interaction (cf. Matras 2010).

7. Concluding remarks

Straightforward examples of morphological borrowing are French-derived *-able* in English *loveable*, Yiddish-derived *-le* in Modern Hebrew *xamuda-le* 'sweety', Polish-derived *do-* in Polish Romani *do-resel* 'to obtain', Arabic-derived *-āt* in Jordanian Domari *lačiy-āt* 'girls', Greek-derived *-iz-* in Spoitori Romani *konduč-iz-av* 'I drive', and many more. All these examples involve either derivational affixes, or borderline affixes with both derivational meaning and inflectional function (as in the case of the Arabic plural marker in Domari), or affixes of inflectional origin but derivational function (as in the case of the Greek tense-aspect affix serving as loan-verb adaptation marker in Romani). Straightforward cases of borrowed inflectional morphemes are hard to find, and the examples discussed above are the exceptions that prove the rule. Borrowed inflectional morphemes are usually limited in their distribution to borrowed vocabulary and do not diffuse to inherited lexemes. Where diffusion of individual

borrowed morphemes to inherited lexemes is attested, it is due to a close structural similarity between the borrowed form and the corresponding inherited affix. In effect these are cases of structural modifications of inherited forms based on analogy, rather than actual adoptions and replications of borrowed morphemes. Usually, borrowed morphemes are employed on a wholesale basis either with a closed class of items (such as borrowed modal auxiliaries), or with a particular word class (such as nouns), or with borrowed lexemes belonging to a particular word class (e.g. borrowed lexical verbs or borrowed adjectives).

Many of the cases described above, especially those of Mixed Languages, have been discussed before and the structural facts of their morphological admixture are well described. But the implications remain controversial. The small class of 'Mixed Languages' has been given this label precisely because the languages involved display structural mixtures that are extraordinary. Yet even Mixed Languages do not offer examples of straightforward borrowing of inflectional morphemes. Rather than point to Mixed Languages and a modest number of other exceptional cases as proof that inflectional morphology can be borrowed, it seems more interesting and more challenging to try and explain why these cases are so exceptional and why even here we do not encounter the kind of borrowing behaviour that is attested for derivational morphology.

The sociolinguistic situation, language loyalty, and 'linguistic ecology' are often cited as key factors toward understanding the particular contact behaviour of some of the cases discussed above (e.g. Adamou 2012). There is no doubt that language attitudes and community norms license and regulate the structural choices that speakers make in conversation. This kind of approach was strongly supported above. Yet community attitudes and norms do not provide a sufficient explanation as to why derivational morphology should behave so differently from inflectional morphology. In order to answer this question we must consider the role of morphological paradigms in regulating language-processing tasks in communicative interaction. This, their 'inner' function, provides the only link between the social reality of communicative settings (and attitudes and norms that accompany them), and the structural changes that individual linguistic categories undergo.

Derivational morphology is a tool that modifies meaning and shapes lexical representations. Inflectional morphology plays a key role in initiating and anchoring the predication in the interaction context (in relation to the interaction role of participants and to presuppositions). In this way it also encodes and signals the language choices that bilingual speakers make in response to the interaction context: The choice of language is represented in the first instance through the choice of predication grammar. The need to protect the integrity of the predication grammar arises from the need to maintain clear language choices. Speakers may license themselves to abandon such boundaries and to flag a hybrid identity by authenticating lexical insertions. To this end, they may replicate inflectional morphology from the source language to accompany such insertions. But even in situations where boundaries are deliberately or consciously blurred, a hierarchical relationship is still maintained among the languages in the repertoire. This hierarchy is represented by the compartmentalisation of morphological components, which continues to protect the integrity of the predication grammar. The motivation to 'borrow' inflectional morphology is inherently linked to re-negotiating language boundaries, which in turn is part of a process of re-negotiating identity. Whereas the purpose of borrowed derivational morphology is to replicate procedures of meaning derivation from the source language in the recipient language, the purpose of

borrowed inflectional morphology is to re-draw social boundaries. The outcome of borrowing processes of inflectional morphology is therefore quite different from that of processes of borrowing that affect other structural categories, including the borrowing of non-inflectional (derivational) bound morphology. The principal distinction can be seen in the need to maintain a wholesale alignment between sets or paradigms of inflectional morphology and word classes or lexical sets. The borrowing of individual inflectional morphemes is, for this reason, strongly dis-preferred.

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Abbreviations

ABL	ablative
ACC	accusative
ANAPH-FOC	anaphora-focus
COMP	complementiser
CONT	continuous
DAT	dative
DEF	definite
F	feminine

FUT	future
GEN	genitive
ITR	intransitive
LOAN	loan verb marker
LOC	locative
M	masculine
NEG	negation
NEUTR	neuter
NFUT	near future
NOM	nominative
OBL	oblique
PART	particle
PAST	past tense marker
PL	plural
REFL	reflexive
SG	singular
TOP	topic
TR	transitive