An activity-oriented approach to contact-induced language change

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1. Introduction

Mechanisms of language change have usually been categorized in terms of either their structural or their societal properties. At the structural level, a well-established distinction is that between loans or transfers of concrete phonological shapes (or linguistic matter), and restructuring, replication, or calques of form-meaning alignments, constructions, or patterns (see Weinreich 1953; Haugen 1956; Heath 1984; Matras and Sakel 2007). Drawing on earlier work (Haase 1991; Nau 1995; Matras 1998b), Heine and Kuteva (2005) point out that pattern-replication or grammatical calques can often be analyzed as cases of language-internal grammaticalization triggered or inspired by a model construction in the contact language. This suggests a two-dimensional process: the first dimension involves the creative formation of new structures and categories, while the second involves the motivation to set such creative processes in motion. In much of the literature on language change, these two dimensions are understood as “language-internal” and “language-external” respectively.

A further point of interest to structural approaches is the relative likelihood of borrowing of individual structural forms and categories (see for example Moravcsik 1978; Thomason and Kaufman 1988; van Hout and Muysken 1994; Field 2002). Particular attention has been given to the status of bound and unbound morphemes, to inflectional and agglutinative morphology, and to paradigmaticity as factors that may facilitate or

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1. Earlier versions of this paper were presented at the workshop on “Language contact and morphosyntactic variation and change” in Paris, and as seminar presentations at the Research Centre for Linguistic Typology at La Trobe University, Melbourne; Australian National University, Canberra; University of Sydney; the Hebrew University of Jerusalem; and Charles University, Prague. I am grateful to the participants and audiences for inspiring questions and comments. For a full discussion of the argument and some of the examples see also Matras (2009).
constrain borrowing. It has been suggested that ease of formal integration will contribute to the likelihood of borrowing. More recently, sample-based surveys have attributed a semantic-pragmatic motivation to borrowability and have postulated meaningful hierarchies among paradigm values that are susceptible to borrowing (cf. Matras 1998a, 2007).

Social mechanisms of contact-induced change are often described along the lines of Thomason’s (2001) typology of interference mechanisms. A distinction is made between language shift and language maintenance, language learning, and deliberate language creation (cf. Thomason and Kaufman 1988; see also Winford 2003). Social settings seem crucial to the definition of at least some types of contact phenomena. One example is pidginization, which is widely understood as being rooted in restricted communication, drawing selectively on the lexical structures of a superstrate language or lingua franca in a multiethnic setting. The result is described variably as the use of a superstrate lexicon either with substrate grammar or with makeshift grammar. Bakker’s (1996, 1997) notion of “language intertwining” also relies on a particular kind of social context, one in which ethnic identity is being negotiated in a situation of linguistico-ethnic hybridity. For such situations, Bakker predicts an outcome in the form of a mixed language that draws its lexicon from one source and its grammar from another. More generally, it has been suggested that prolonged, reciprocal bilingualism, or language “equilibrium,” is likely to lead to the emergence of pattern-similarities among languages, while diglossia and dominance are more likely to result in the borrowing of word-forms (cf. Aikhenvald 2002: 265ff.).

However, it is not always obvious that a direct correlation can be drawn between the type of social setting and the structural outcomes of contact. It may be the case that in the lexical domain, items such as place-names, field-names, and agricultural terms are more likely to be carried over from a substrate to a superstrate language during language shift, while lexical transfers from a superstrate language will tend to cover technical innovations and trade vocabulary. Low German in East Friesland, for example, contains (substrate) Frisian terms connected with agriculture, the sea, dikes, and drainage, and (superstrate) Dutch vocabulary for trade, commerce, and engineering (cf. Remmers 1997). But the loss of a definite article is common both to Russian learners’ varieties of English and to language maintenance in Romani in contact with (superstrate) Russian, while the emergence of a new definite article is common both to language maintenance in Sorbian in contact language text of the

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2. Multilingualism

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contact with (superstrate) German and to convergence – possibly through language shift, perhaps through a prolonged “equilibrium” – in the context of the Balkan languages Romanian, Bulgarian, and Macedonian.

Two principal factors are often said to motivate contact-induced change: “gaps” in the recipient system, on the structural side, and the overall “social prestige” of the donor system, on the societal side. “Gaps” are understood as asymmetries in the structural representation of semantic-pragmatic functions in the two languages in contact. At the structural level, the notion of “gaps” implies that multilingual speakers aim at availing themselves of a uniform system of form-function mapping across their various languages. This does not, however, provide a direct explanation for the borrowing of word-forms to replace forms that had already existed in the language prior to contact, as in the wholesale replacement of the system of discourse markers (see Matras 1998a; Salmons 1990). The “prestige” assumption in turn fails to explain why some structural categories, such as connectors, are more likely to be borrowed than others, such as personal pronouns. If a language is generally “prestigious,” why should its prestige be more easily flagged through connectors than through personal pronouns?

“Prestige” is therefore better understood as a license to employ forms and structures from a language which, as a result of unidirectional bilingualism, is more widely used in the community and which, thanks to institutional support and its role in the public domain, is subject to tighter normative control. The language of a monolingual majority that is used in the public domain and is protected by institutions (such as literacy) will often be regarded as the “dominant” language. The non-dominant, smaller, or minority language is less likely to enjoy institutional protection and literacy. Its speakers are therefore less likely to be aware of norms and rules and to enforce them; in fact, they are more likely to be multilingual and tolerant of structural variation. Asymmetry in the social roles of the languages (that is, in their “prestige”) may therefore determine the direction of change, but it does not necessarily explain the motivation for structural change. With these considerations in mind, we are left with the question of how best to explore the link between social reality and the role of structural factors in contact-induced change.

2. Multilingual conversation as repertoire negotiation

The answer lies, I propose, in understanding the communicative acts that multilingual speakers engage in, and in examining the value that particular
linguistic constructions have in allowing speakers to achieve their communicative goals.

Like any other process of language change, contact-induced change begins with innovations introduced by an individual speaker as part of communicative interaction. My assumption is that such innovations are not arbitrary, but follow goal-oriented tasks. This 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 involved in communication. According to this approach, the selection of structures by the speaker is not random, but defined by the linguistic task-schema that the speaker wishes to carry out. This, in turn, is subordinate to the goal-oriented activity that the speaker pursues by means of verbal communication, organized at the level of discourse.3

Becoming "bilingual" is an extension of an individual's contexts of interaction, as a result of that individual's repertoire of communicative structures. Multilingualism from infancy means 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" natively; 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 socialization (see Lanza 1997). Some contexts allow greater flexibility of choices – what Grosjean (2001, 2008) termed the "bilingual mode." These are the contexts in which bilinguals can make the most effective use of their full repertoire, exploiting nuances as well as contrasts between variants of equivalent or near-equivalent meaning. Other sets of contexts are more exclusive of the selection of items and groups of items within the repertoire.

The existence of selection rules as 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 three, the set of forms and error, usually an overt class.

Such an approach to the literature does not necessarily contain a computer (or morphosyntactic) view of two linguistic monolinguals' borrowing to those of monolinguals in a new situation of monolingualism. German "I.

How do bilinguals know what to borrow in a product of their repertoire or loan set of norm, if the repertoire irrespective is determined by communicative actions?

When learners of a new language become bilingual, they usually receive input that is not employed in the conversation. Communicating with the conversational language with gual speaking of the communicative repertoire a
of three, 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 labeling or other 
over classification of the elements of their repertoire.

Such an 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, accept that their repertoire 
contains only one single word-form for concepts such as internet, download, 
computer (subjected of course to embedding in different phonological and 
morphosyntactic environments). Such category-specific inseparability of the 
two linguistic subsets in a bilingual's repertoire is part of the definition of 
"borrowing" which I pursue in this paper. The definition can be extended to 
those constellations where a structure continues to diffuse, reaching a 
monolingual population that has never experienced the need to interact 
in a new set of contexts. While this aspect of borrowing – diffusion to 
monolinguals – is a property of some borrowing situations, such as the 
German 'Internet,' 'Computer,' it is not necessarily typical of all.

How does borrowing come about? And how is it linked to other 
contact phenomena? Communication in a language contact setting is the 
product of the interplay of two primary factors (Figure 1): loyalty to a 
set of norms that regulate the context-bound selection of elements from 
the repertoire, and a wish to be able to exploit the repertoire in its entirety 
irrespective of situational constraints. The balance between these two factors 
is determined by a need to remove hurdles that stand in the way of efficient 
communication.

When loyalty prevails in a strict manner, then "interference" or com-
promises are likely to be minimal. But when the wish to exploit the full 
repertoire is given some leeway, then strict context-bound separation of 
repertoire components might be compromised. Individual words that are 
usually reserved for interaction in context set A might, for example, be 
employed ("inserted") also in interaction in context set B. Second-language 
learners might draw on the phonology of their native language while com-
municating in a second language, bilingual children might employ construc-
tions from one language that are not usually used in the chosen language of 
conversation, and adult bilinguals might insert discourse markers from one 
language when communicating in another. All this suggests that multilin-
gual speakers do not "block" or "switch off" one of their languages when 
communicating in another, but that they have the full, complex linguistic 
repertoire at their disposal at all times.
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, and so on), 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. Instead, 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. 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 up with the function that those categories have and the way they support language processing in discourse. Contact phenomena are in this respect seen as enabling rather than interfering with communicative activity.
My principal claim in this article, then, is that innovative strategies occur in pursuit of specific communicative goals. The challenge that I take on is to identify the connection between spontaneous innovations in discourse, through to the emergence of stable variants in communication in multilingual settings, and on to processes of language change. I will focus on four principal types of innovation: the insertion of lexical wordforms and lexical borrowing, replication of patterns or constructions, fusion of grammatical operators, and playful or “theatral” mixing. The compilation of data from a trilingual child, from adult bilingual speech, from stable multilingual settings, and from cases of contact-induced language change will illustrate the close affinity between spontaneous innovations and long-term change, and show that all types of innovation strategies are already available to the very young bilingual in the very early steps of managing a complex linguistic repertoire in a multilingual setting.

3. From lexical insertions to lexical borrowing

Consider an example from the speech of a trilingual from infancy, whose home languages are German (with the mother) and Hebrew (with the father), while English is the language of the environment, including school (from Matras 2009):

(1) German; age 7:6, when reminded of a past event

\[
\text{Da war ich noch in year one}
\]

Deich was.1sg I still in

'I was still in year one then.'

In example (1), the child is using events from school life as points of reference. The school is an English-speaking environment, key elements of which are treated as unique referents, or what Backus (1996) calls “specific” entities. Although the child is in principle able to translate or paraphrase the concept \text{year one}, use of the English form amounts to an activation of the world of associations represented by the original term. The insertion of the English term thus acts as a discourse device that supports the transposition of imagery of the original setting into the ongoing conversation. The uniqueness of the English term as part of the regulated vocabulary associated with the English-speaking school environment gives \text{year one} the status of institutional terminology, for which translations are not appreciated as equivalents because they are dissociated from the original setting.
Institutional terminology is commonly involved in bilingual insertions in the speech of adults too. There is, in other words, nothing specific to the child acquisition context that promotes the insertion of institutional terminology. Consider example (2), from the speech of a (Lovari) Romani-German bilingual (Matras, fieldwork):

(2) Romani (Lovari)-German bilingual; biographical narration

Aj akana, obwohl kadka meres ke muljas tute
and now although here die.2SG because died.3SG. 2SG.DAT
varekon, hačares, du bist total fertig, tu si te
somebody understand.2SG you are totally devastated 2SG is COMP
žas inke te des tu gindo kaj te praxov
GO.2SG still comp give.2SG 2SG thought where COMP bury.1SG
les, kudka si te žav, Bestattungsinstitut, ehm/ pa/ pa/ pa
3SG.OBL here is comp go.1SG funeral home on on on

Meldeamt, eh Geb/ Sterbeurkunde,
registration office bir death certificate

‘And now, although you’re dying here because one of your people died, you understand, you’re totally devastated, you still have to go and think about where should I bury him. I have to go there, funeral home, ehm/ to/ to/ to the registration office, eh birth/ death certificate.’

The speaker inserts German terminology to describe institutions and institutional activities associated with the burial of a relative in Germany, where she lives. From a strictly formal perspective one might regard these insertions as gap-fillers, since they have no Romani equivalent. However, it is precisely the fact that no Romani equivalent is created by speakers that demands our attention. Speakers could calque or paraphrase or otherwise create compounds or terms that would allow them to describe the relevant concepts without having to resort to word-forms that are derived from a non-Romani interaction context. But in this case, the effect of the association evoked precisely with the non-Romani interaction context is purposeful and fills a function. It is a powerful discourse-level tool in emphasizing the contrast between the intimate feeling of mourning and distress, which engulfs the individual and her family following the death of a loved one, and the anonymity of bureaucratic errands carried out in an indifferent and potentially hostile environment. The replication of the original German terminology is thus not only a matter of convenience, it is also instrumental to the overall message conveyed by the speaker.

Lexica to operate the insertions with demarcation and the entire action, an action, an action.

This speaker becomes a different kind of celebrity in the English and institutional context as living who use the example (3) for the example and association.

(3) German

Ich ne

‘I have’

The discovery and extension of typical instrumental instruments borrowed an example

4. See the calculation
Lexical insertions of the types illustrated in these two examples appear to operate precisely on the ambiguity of the context-separation of sub-components of the speaker’s overall linguistic repertoire. On the one hand, the insertion of words from a different “language” appears to defy the demarcation of sub-components of the speaker’s overall linguistic repertoire and so to suggest that the speaker is at liberty to make full use of the entire repertoire irrespective of any situational or contextual constraints. On the other hand, it is precisely the association of these particular insertions with another set of interaction settings – that belonging to the public and institutional domain, outside the home, and so on – that creates a special effect in the ongoing discourse, that of authentication and contrast with the more intimate sphere of the chosen language of the ongoing interaction, an effect the speaker exploits for stylistic purposes.

This special effect of lexical insertions may become eroded when a word becomes a regular part of the language into which it is inserted, or when it is adopted in monolingual contexts and the contrast of associations with different interaction settings is thus lost. Nonetheless, special effects may arguably still be detected even following the stabilization of loan vocabulary. The diglossic origin of the contrast among the famous English lexical pairs *pig-pork*, *sheep-mutton*, *cow-beef*, *chicken-poultry* in peasant (Saxon) English and aristocratic French is still apparent in their domain specialization as livestock versus culinary dishes. Likewise, most German speakers who use English loans in domains such as computer technology, as in example (3), media, and management are aware of their English origins and associations with international communication settings:

(3) German: Lexical borrowing

Ich muss es vom Internet downloaden
I must it from the internet.

The discourse-strategic insertion of lexical items pertaining to institutional and other cultural or social domain-specific terminology fits nicely, of course, with the overall picture of lexical borrowing. At the top of the list of typical lexical borrowings we find terms for institutions, specialized instruments, culture-specific practices, and innovations. Most of those are represented by nouns, which appear universally to be the most frequently borrowed word class. Statistics for Japanese (4) and Romani (5) provide an example.4

4. See the two sources cited here for details on the corpora and the mode of calculation.
(4) Percentage of English loans in Japanese by selected, specialized semantic domains (from Loveday 1996):

- computer (99%) > broadcasting (82%) > journalism, marketing (75%) > engineering (67%) > flowers (52%) > vegetables (35%) > animals (24%) > colors (9%)

(5) Percentage of loanwords by semantic domain in Selice Romani (Elšík 2009):

- household, modern world, agriculture (over 90%) > clothing, warfare (over 80%) > animals, social and political relations, the physical world (over 70%) > religion and belief, speech and language, law, technology, food and drink (over 60%) > time, the body, motion, perception, emotion, cognition, values (over 50%) > spatial relations (over 40%) > quantity, kinship (over 30%)

Examining both the synchronic, discourse-based behavior of bilinguals and diachronic data on contact-induced language change in an integrated approach, we are in a position to explain both some structural facts of lexical borrowing – the predominance of nouns among borrowed word classes – and the semantic distribution of lexical borrowings: The roots of lexical borrowings are in bilinguals’ attempts to integrate into an ongoing interaction concepts associated primarily with an environment in which a different language is spoken. The need to do so arises in particular with reference to unique structures of that environment, such as specific practices or names of specific institutions that are not replicated in the activity domain or community in which the language of the ongoing interaction is spoken. The liberty to draw on such insertions is given in turn only in those interaction settings where the speaker may resort to the bilingual mode, that is, where the other participants are also bilingual and where the language of the interaction is not tightly regulated but at least some flexibility is allowed for. In situations of unidirectional bilingualism, this limits the opportunities for using insertions to interactions among members of the bilingual group only. The insertion serves to activate knowledge of the original set of interaction contexts in which the word is normally used. As such, it has a strategic effect on the structuring of the discourse, apart from facilitating the speaker’s access to concepts by licensing the activation of words and terms from the entire repertoire, irrespective of the interaction context in which they originally appear. In due course, some bilingual insertions may find their way into a monolingual population, carried by the child. Consider: child. (Aron 1975) – German – du bist der sitzende, du bist der stehende form of 3PL agrees with second person, the child’s acquisition requires this, whereas the children of the shop, while they are speaking about older children, refer to another child’s acquisition restricted to the politeness morality of the regular slot which now generalizes the game.

By acquiring communicative than suggesting familiar with, the only this us for communication, spending time is the context.

(6) a. Here is a bag of vegetables. (ex.)

b. What did you eat for lunch? (imp.)
carried by a group of innovators whose terms, concepts, or simply stylistic choices are being adopted by others in the speech community.

4. Replication of patterns / constructions

Convergence of form-function mapping, semantic meaning representation, constructions, or “patterns” is sometimes regarded as a prolonged process involving not just gradual dissemination within the speech community but also gradual evolution or grammaticalization of the construction itself. In fact, while there is no disputing that a time factor is crucial to the propagation of an innovation throughout the speech community, the emergence of an innovation may certainly be a spontaneous act.

Consider the following example, from the German-Hebrew bilingual child. Around the age of four, the child acquires a new construction in German – the politeness term of address Sie. The German second-person polite form Sie is identical to the 3PL pronoun sie, and carries the same 3PL agreement marker on the verb. The context in which the child acquires this construction is a game which he plays with his mother, in which the child is a storekeeper and the mother is a customer coming to the shop, who addresses the shopkeeper in the polite form when inquiring about certain products (haben Sie X? ‘do you.polite have X?’). The child’s acquaintance with the German politeness form is, at this stage, limited to this particular context. Strictly speaking, he does not acquire a politeness marker as such, but a construction that is employed in a particular slot within the predefined pattern of speech activities that characterizes the game “shop.”

By acquiring this new construction, the child has extended his overall communicative repertoire. In this case, this is a more accurate description than suggesting that he has learned a new “structure,” since he is already familiar with the form of the 3PL pronoun and agreement marker, and it is only this use of the structure to refer to the addressee under strictly-defined communicative circumstances that is novel to him. When the child is spending time with his father, a similar game is played in Hebrew. That is the context of example (6).

(6) a. Hebrew; age 4:1, during role-play as a customer addressing a grocer:

yeš lāhem tapūxim?
there.is to.3PL apples
[intended] ‘Do you have apples?’
[expressed] ‘Do they have apples?’
b. German model construction for polite form of address:

\[
\text{haben} \quad \text{Sie} \quad \text{Äpfel?}
\]

have.3PL you.POLITE/3PL apples

‘Do you have apples?’

Note that the “generic” shop-game, from the child’s perspective, is played with the mother, and that it is in her household (the parents live in two separate households) that the child has a range of accessories, including a toy counter and till, to facilitate the game. The shop-game in the father’s household is thus a “replica.” Having enriched his linguistic-communicative repertoire as part of mastering the shop-game, the child is eager to repeat the acquired pattern of activity associated with it. This repetition of the activity pattern may be regarded as the child’s communicative goal in the interaction (see Figure 2). It includes the organization of the question which the child, now playing the role of the customer, puts to the storekeeper, this time the Hebrew-speaking father. For this particular task within the overall interaction pattern, the child has recently acquired a specific task-effective construction. However, Hebrew lacks a politeness pronoun of the kind found in German; completion of the task or parts of it in German would be against the rules of compliance with the selection of context-appropriate (Hebrew) word-forms (and might therefore be rejected by the interlocutor, or interpreted as an attempt to create a special conversational effect).

Aware of the constraints on the interaction context in the father’s household, namely the need to choose overt word-forms that conform with the context – or “Hebrew” word-forms – the child is keen to comply by selecting a construction that is contextually appropriate. At the same time, the child is keen to communicate most effectively and to exploit the functionality of new constructions in his overall linguistic repertoire. The two seemingly conflicting motivations are reconciled through a creative procedure. The child picks up a single – albeit “pivotal” – feature of the German construction, namely the use of the 3PL. He matches this feature to a counterpart structure in Hebrew, replicating the German construction by employing a Hebrew possessive construction in the 3PL (Figure 2). The combination renders the construction both contextually appropriate and seemingly effective for the communicative task that has been selected.

Its actual effectiveness will of course depend on the ability and willingness of the interlocutor to understand and accept the meaning of the new construction. Its chances of becoming propagated within the speech community and so to lead to language change will in turn depend on the inno-
The communicative goal is played out in two phases: the first, including a task, where the father's role as a communicative agent is to repeat and reinforce a selection of the communicative goal in the act of interaction. The question raised is whether or not the storehouse of linguistic forms for particular task situations is acquired a priori and, if so, how. The Politeness Construction, in particular, requires parts of the communicative act that can therefore be described as having a special status.

The innovator's housekeeping functions then result in the acquisition of linguistic forms, which are then mapped onto the communicative goal. The two stages of the communicative process, namely the selection of the communicative goal and its transformation into a construction (Figure 2). The goal is then mapped onto a context-appropriate and context-effective construction.

The innovator's potential to influence others, on the degree of normative control on language that is exercised in the speech community, and of course on the existence of a community of interlocutors. In the case of the present example, the construction may be understood by the interlocutor, but there are no Hebrew-speaking peers among whom the innovation can be propagated, and parental intervention in the child's speech is regular and is likely to prevent even the innovator himself from adopting the construction on a regular basis. Nevertheless, while the propagation chances will vary considerably among speech communities, the creative process by which pattern-replication first appears and the discourse-functional motivation behind it can be regarded as similar in principle.

Constructions are selected as advantageous and worthy of replication through pivot-matching when they are perceived as particularly task-effective. We saw this in example (6), where the child's selection of the "politeness construction" was motivated by a recently acquired rule to use the "politeness marker" in a particular position of the interaction scheme of the role-play "shop." But task-effectiveness can also be associated with simple task routines where the selection of a particular construction is motivated primarily by the fact that it is the most readily available, or in the
absence of secure knowledge about an alternative appropriate construction. Example (7) shows how an adult native speaker of German, whose English is considered fluent, resorts to pattern-replication to activate German construction patterns while giving a formal interview to British television.

(7) German/English bilingual, in a British television interview:

At the border in England, were by the custom/ They have investigated this car very very eh/ eh/ thoroughly and they have removed the panels from the doors, the panels from the luggage room.

So-called subject-verb inversion following an occupied first constituent position in the sentence is replicated in English by following the same word order. It is a specialized word order pattern, applied in German when a constituent other than the subject is employed to create the perspective of the sentence. The speaker is over-differentiating a semantic-syntactic context here, attempting to select a very specialized construction for a very specific task. In what follows, verbs appear in the perfect tense with have auxiliaries, as they would in German in the description of simple events whose outcome does not necessarily extend into the present. Finally, the construction of the lexical term luggage room for boot or trunk is a replication of German Kofferraum. Like the child’s pattern replication in (6), these examples too are spontaneous, triggered by an appreciation of task-effective constructions for the given communicative tasks, coupled with (or constrained by) an appreciation of the need to comply with the selection of word-forms from a particular inventory or sub-component of the linguistic repertoire, word-forms that would be understood and accepted by the interlocutor in the ongoing interaction context. Here too, the potential for these makeshift replica constructions to become propagated and stabilized within a larger speech community is small, indeed minimal; but one might just imagine the potential in a community consisting to a large degree of second-language learners for whom the target language becomes the language of choice, in situations of ongoing language shift.

There are also numerous observable cases of pattern-replication in smaller or minority languages, brought about by bilinguals imitating constructions from the neighboring dominant language. Here we have, in other words, not a situation of language learning nor one of language shift, but one of maintenance of a community language; nor do we have a linguistic equilibrium, but a case of clear diglossia and dominance. And yet the outcome is the replication of patterns or constructions, sometimes on a mass scale, more or less.

In this situation, which is a common one, a new situation may be described as follows: In a situation where language innovation is widespread, the first task to do is an interlocutor in a larger speech community is small, indeed minimal; but one might just imagine the potential in a community consisting to a large degree of second-language learners for whom the target language becomes the language of choice, in situations of ongoing language shift.

A process found in the Khuzistan, the domino and Shabir (or nominalive constructions,

(9) a. “One would ...
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on a massive scale. Domari, for instance, the archaic Indo-Aryan language spoken by a tiny ethnic minority in the Old City of Jerusalem, is in the process of generalizing a new possessive construction, modeled on the one found in colloquial Palestinian Arabic, its principal contact language.

(8) a. “Canonical” Domari
   bəy-im kuri
   father-1SG house

   b. Palestinian Arabic:
   bêt-o la-ʔabū-y
   house-3SG.M.POSS to-father-1SG

   c. New Domari construction:
   kury-os bəy-im-ki
   house-3SG.POSS father-1SG-ABL
   ‘my father’s house’

In this situation, a variant construction has emerged which has now become stabilized as a regular option, probably even the preferred option, by most speakers. We can assume that its roots were in a spontaneous innovation of the type seen in examples (6) and (7). The motivation for such an innovation will have been the frequency of use of the Arabic construction in interaction outside the Domari-speaking household. The need for tight control in producing correct Arabic constructions among Arab interlocutors will have contrasted with the relatively lenient attitude that speakers of the now moribund Domari have toward their own language, in which variation, flexibility, and mixture with Arabic are commonplace, adding yet another factor in the perception of the Arabic-based construction as more task-effective.

A process of language change that has come to its conclusion can be found in the dialect of Gulf Arabic spoken in the Iranian province of Khuzistan, especially in urban communities, where Persian has become the dominant language of institutions and the public domain (cf. Matras and Shabibi 2007). Here, the attributive construction involving nominals (or nominal-possessive construction) has fused with the adjectival attributive construction, following the Persian model.

(9) a. “Canonical” Arabic
   ʔabaqa-t il-mustaʃfa ʔiθ-θāniyya
   floor-CONSTR.F DEF-hospital DEF-second.F
b. Persian
\[ \text{tabāya-ye dovom-e būmarestān} \]
floor-ATTR second-ATTR hospital

The second floor of the hospital building

Note that the canonical Arabic construction expresses nominal attribution by attaching a so-called construct ending (with feminine nouns only) to the head, and by attaching a definite article to the following possessor noun. Adjectival attribution is expressed by the postpositioning of the adjective and its agreement with the head in gender, number, and definiteness (a head that is determined through nominal attribution in the possessive construction being considered as definite). In Persian, both types of attribution are represented by the positioning of an attributive particle -(y)e between the head and the attribute (whether nominal or adjectival). Khuzestani adopts the Persian model, and generalizes one single attributive construction to both nominal and adjectival attributes. Moreover, it draws on the linear combination of a construct state ending (with feminine nouns) on the head and the definite article of the following dependent attribute and equates those with the Persian attributive marker, which in Persian is arguably the pivotal feature of the attributive construction. This combination is then transferred to the Khuzestani adjectival construction as well. The result is a one-to-one or isomorphic correspondence between the Persian and the Khuzestani Arabic constructions.

Finally, Macedonian Turkish has undergone a series of radical changes to its overall typology of clause linking, which have given rise to devices linking finite clauses of the type that is common in the languages of Europe in general and surrounding languages of the Balkans, Macedonian, Albanian, and Greek in particular (cf. Matras 2004; Matras and Tufan 2007).

(10) Macedonian Turkish relative clause
\[ \text{adam ne gel-di} \]
\[ \text{man rel come-3sg.past} \]
The man who came

The language has developed postposed, finite relative clauses as well as a relativizer, modeled on the interrogative ne ‘what,’ much like its Macedonian counterparts:

5. Selection

Above it was shown that the entire repertoire of relative clauses and every other selection possibility used in other languages is present in Macedonian, albeit in the most basic form. In this example a relative clause is used to express a selection marker.

In this example, however, the selection marker is not as young as in the examples above. It is a relatively old device that is still employed in Macedonian today.

(11) Hebrew
\[ \text{hebreah be-em-kaf} \]
\[ \text{ba-yit house} \]
\[ \text{a snail} \]
\[ \text{A small} \]

Clearly, whether the Hebrew construction is a relative clause or a device as such, it is still a selection marker. The content word that modifies its function as a relativizer has developed into a relativizer with its own identity, and it is this identity that makes it possible to use it as a relativizer.
donian counterpart što; and it has done away with Turkish gerundial constructions of the type gel-en adam ‘the man who came.’

5. Selection malfunctions

Above it was proposed that bilingual speakers do not “switch off” one of their language “systems” during monolingual conversation, but that the entire repertoire of linguistic structures remains available to them in each and every communicative interaction setting. Following Green (1998) and others we might assume that the production of both lexemes and constructions undergoes a monitoring procedure as part of which those structures that comply with the constraints on context-appropriateness (structures that are expected and so are likely to be accepted and understood by the interlocutor) are selected, while those that are not deemed contextually appropriate are blocked. Example (11) below shows how this control and selection mechanism, which is already operational in a multilingual child as young as two, may occasionally malfunction. As a result, a structure is produced that is functionally correct in terms of its semantic-pragmatic value, but contextually inappropriate as it belongs to the “wrong language.”

In this example, the child is known to have mastered the production of a series of different clause combining structures in both Hebrew and German, including the contrastive combination with elements equivalent to English but. But in (11), following a three-week holiday in which German was the only everyday language of interaction, he produces the German conjunction aber during an interaction in Hebrew:

(11) Hebrew; age 2:3, first few days in the father’s care after returning from a three-week holiday in Germany; inspecting the shell of a snail in the garden:

báyit šel xilazón aber éyn xilazón bijnim
house of snail but is-no snail inside
‘A snail-shell, but there is no snail inside.’

Clearly, whatever difficulty the child is having in retrieving the correct Hebrew conjunction is not affecting the semantics of the clause linking device as such, which is correctly produced drawing on the German equivalent, nor is it affecting the retrieval of other Hebrew structures, be they content words or grammatical items. The absence of any hesitation of correction indicates that the child is not aware of the “error” in the choice
of word, and indeed the interlocutor in this case does not intervene but accepts the construction in its entirety; the construction is thus viable from a communicative viewpoint, at least in this instance.

What is the motivation behind the child’s selective failure, around the contrastive conjunction, to control and select the appropriate word-form? Confusion on the basis of the structural similarity between the two conjunctions – German aber and Hebrewavl – cannot be ruled out entirely, although the difference in prosody appears to make the distinction between the two quite salient. More likely, the source of the malfunction can be attributed to the specific semantic-pragmatic value of the connector. The function of the contrastive conjunction is to signal a break in the expected propositional causal chain (Rudolph 1996). It is inserted by the speaker in anticipation of a disharmony between the expectations of the interlocutor about the subsequent course of the proposition and the speaker’s own intentions concerning the exposition of the proposition. Moreover, it constitutes a direct intervention by the speaker with the interlocutor’s ongoing processing of the proposition. The clash of expectations and the speaker’s effort to intervene and redirect the listener’s processing constitute a tense moment in the interaction, one during which the speaker’s authority is at stake and a concentrated effort on the part of the speaker is called for in order to maintain the listener’s confidence and possibly even the floor. Elsewhere (Matras 1998a, 2000) I have argued that the mental effort that is required in order to solve this tension comes at the expense of the effort that is directed toward the smooth and continuous operation of the selection and inhibition mechanism, which controls the selection of context-appropriate forms from the multilingual repertoire. There is therefore a direct correlation between “high-tension” mental processing operations such as contrast and other argumentative connectors, and the likelihood of malfunction of the selection and inhibition mechanism, and therefore a direct correlation between such operations and bilingual speech production errors where the functionally correct form is selected, but from the “wrong language” (that is, from the contextually non-appropriate component of the linguistic repertoire). When such malfunctions occur, they tend to be directed towards a language that has recently been activated on a routine basis and therefore constitutes the default fall-back option for routine task-management of the relevant processing operation. For the young bilingual child who has just returned from a three-week stay in Germany, this “pragmatically dominant language” is German.

Not just children are prone to selection malfunctions of this kind. Consider the following examples, all recorded from bilingual adults in a multi-

lingual set-

ting of Hebrew approached from the genera-


tive con-

}
lingual setting, all involving a similar class of operators. In (12), a group of Hebrew-English bilinguals is speaking Hebrew at a restaurant. They are approached by the waiter, who takes their order in English. One person from the group then adds an item to the order, choosing the Hebrew contrastive connector instead of English but.

(12) Hebrew/English bilingual at a (Chinese) restaurant in England:

... and one Won Ton soup avá|eh/ the vegetarian one.

but

The hesitation and seeming self-repair that follows indicates that the speaker has become aware of her production of an incorrect form and, moreover, that the form that had been produced was indeed not intended. Selection malfunctions are counter-strategic; they do not serve a goal in shaping or influencing the message key for any stylistic special effect. They are nevertheless functional in the sense that they are non-random in their distribution and direction; in other words, they can be systematically accounted for and explained through a model of multilingual language processing and speech production, as attempted above.

The important thing to note here is that malfunctions are not motivated by “gaps,” either in the system itself or necessarily in the speaker’s command of the system; nor are they motivated by “prestige,” as there is no prestige gain to the speaker who confronts a Chinese waiter in England with a Hebrew conjunction, nor to the young child who fails to conform consistently with the selection constraints that operate in the context of his interactions with his father. (In the latter case a gap can be excluded when there is evidence that the child has used the appropriate Hebrew word or construction on previous occasions.) The fact that malfunctions tend to defy prestige constraints is perhaps best exemplified by (13), where a trained diplomat slips into his native language, Arabic, during a formal television interview.

(13) Saudi Ambassador to the UK during a television interview:

I would beg to say that ya$ní/ the Kingdom is a very big territory.

The slip is the failure to control the production of the Arabic discourse marker ya$ní, which might be translated as ‘I mean’ or even ‘you see,’ and whose function is to grab the interlocutor’s attention and to make sure that it continues to be focused on the speaker’s turn and propositional content. Thus, ya$ní has a somewhat similar tension potential to the contrastive marker, allowing the speaker to regulate roles in the interaction and intervene directly in the hearer-side processing of the ongoing discourse.
The following examples indicate the volatility in principle of the directionality of selection malfunctions. Above I referred to the "pragmatically dominant language" (see Matras 1998a) as the fall-back option for routine task constructions. In the previous two examples, the lapse in selection control happens to favor the speakers’ respective native languages. However, in (14) the speaker is a Polish native speaker residing in Germany. She is speaking German to two friends she is meeting up with in London, during her stay there on a three-week language course.

(14) Polish/German bilingual, on "language holiday" in England:

... bis auf] bis auf die Tischdecken, because] eh weil sie ...  
‘... except/ except for the tablecloth, because/ uh because it ...’

The selection of English because during a portion of German conversation targets the language toward which the speaker has been directing her uppermost intellectual attention during the past weeks. Once again, we are dealing with an argumentative connector, one that is inserted in order to intervene with and influence the hearer’s course of processing propositions and deriving conclusions from them, and at the same time a connector that operates at the interactional level, announcing the speaker’s justification of a preceding statement; thus, because captures the speaker yet again in a position of potential vulnerability on the interaction plane.

Example (15), from a German/Hebrew bilingual residing in England, underlines yet again the relevance of the pragmatically dominant language – the language in which routine tasks have most recently been handled – as the fall-back option.

(15) German/Hebrew bilingual living in England:

ani xoševet še ze lo knesiya any more  
I think.sg.f that this NEG church

‘I think that this is no longer a church.’

Here the selection malfunction targets an indefinite expression, which operates at the level of established presuppositions. At the pragmatic level of the interaction, indefinites serve to delegate to the listener the task of supplementing relevant information based on shared presuppositions. In the case of (15), the discontinuity signaled by the speaker through any more (in a negated phrase) presupposes the availability of information on an earlier state of affairs that is being discontinued. This information is not made explicit, however, and the hearer is expected to retrieve it from the context. By explicitly delegating to the listener this procedure of mentally supplementing hearer-side information to the retention of vulgarity, therefore facilitating interaction of the speaker and intentionally add...
supplementing information, the speaker is once again intervening with hearer-side processing (beyond the mere default routine of supplying information to the listener). In so doing, the speaker puts him/herself in a position of vulnerability with respect to the listener’s potential discontent. We therefore find, once again, a link between high-tension constructions, distraction of the mental processing effort, and weakening of the selection and inhibition mechanism, and as a consequence the selection of a functionally adequate but contextually non-appropriate structure.

Finally, example (16) shows how a speaker of Ladino (Judeo-Spanish) living in Israel falls back on the pragmatically dominant language – here, Hebrew, the principal language of interaction outside the home – during a connectivity construction linking events into a consequential chain.

(16) Judezmo (Ladino)/ Hebrew bilingual:

   the uh locals the locals were relations better
   de los yrexos ke vinieron de la turkia.
   from the Greeks who came from Turkey

b. Por *ke los* ke vinieron de *Turkia* eran ublixados
   because those who came from Turkey were obliged
   de tomar lavoros de los eh/ sitadinos/ siudadinos, si.
   to take jobs from the uh citizens citizens yes

c. H: Mhm, mhm.

d. S: *Az* eh es/ enteresas empezò la/ la kel/ la enemistad
   so-then uh so-then began the the that the rivalry
   la más grande.
   the most great

   a. S: ‘[With] The uh/ locals, the locals, relations were better than
      [with] the Greeks who came from Turkey.

   b. Because those who came from Turkey were obliged to take
      jobs from the uh/ citizens/ citizens, yes.

   c. H: Mhm, mhm.

   d. S: *So then/ uh/ th/ then the/ uh/ the greatest rivalry emerged.’

Note the speaker’s self-repair in segment d., which follows the slip into Hebrew (both Hebrew *az* and Ladino *enteresas* have both a temporal-sequential and a consequential meaning), confirming that the speaker is
not trying to avail himself of the contrast of languages for any stylistic purposes or other special effect, but that he has genuinely lost control over the speech production mechanism around the relevant expression.

What is the meaning of self-repairs of this kind? At first glance we might at the very least dismiss any chances of further repetition, let alone propagation, of this one-off error, and so any chance of its stabilization as an integral part of the speaker’s inventory of expressions, forms, and constructions potentially selected during conversation in Ladino. However, Berk-Seligson (1986) in fact documents the exact same Hebrew-derived feature – az ‘and then,’ ‘and so’ – in the speech of other Israeli Ladino-speakers. It is quite clear that some selection malfunctions, such as those represented in examples (12)–(15), are unlikely to become propagated throughout a speech community and lead to language change even if they do happen to be repeated by the speaker, or even by another speaker. In all these settings the potential for a sector within the speech community to find the innovation advantageous for communication is virtually non-existent. Nonetheless, this is not to say that the act, or rather event, of selection malfunction itself cannot lead to language change. Given a sector of individuals with similar bilingual skills and a similar repertoire, frequent occurrence of selection malfunctions targeting similar expressions or even sets of expressions, and lax normative control over performance in the relevant (recipient) language and tolerance of change, the targets of selection malfunctions may indeed become stabilized within a speech community. A prerequisite seems to be the established status of the pragmatically dominant language as a powerful contact language that is both widely understood and widely accepted. Consider the following example, from a speaker of Low German, originating in Schleswig-Holstein in northern Germany, who was recorded in the United States some 30-odd years after his emigration to that country:

(17) Low German speaker, 35 years in USA

\[\text{Dat weer'\textquoteright \textipa{\text{Unnericht \fuer s\textipa{\text{stein Stunnen, but ik hef bloos}}}}\]
\[\text{that was a lesson for sixteen hours but I have only}\]
\[\text{acht Stunnen m\textipa{\text{a}\ddot{e}}k t\textipa{\text{e}}ber dor hef ik uk nix leert.}\]
\[\text{eight hours made but there have I also nothing learned}\]
\[\text{'That was a sixteen-hour class, but I only did eight, but I also didn't learn anything there.'}\]

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5. I am grateful to Dörte Hansen-Jaax for sharing this material with me.
Two variants for the connector ‘but’ – Low German aber and English but – appear in this person’s speech alongside one another; the short excerpt reproduced here is typical of longer stretches of discourse documented for the speaker, which show that both variants have become an established part of his Low German speech. We can attribute this to repeated selection malfunctions that have gone unrepaird and uncorrected, and have finally become an accepted and integral feature of the speaker’s idiolect. The following example illustrates the adoption into Lovari Romani of German discourse particles by a speaker who belongs to the first generation in her family to be raised in Germany.

(18) Lovari Romani, born in Poland, first generation in Germany:

Laki familija sas also kesave sar te phenav, artisturi, na?
her family were पURT such how COMP say.1SG artists पURT
‘Her family were like such how shall I say, showpeople, right?’

The speaker in (18) licenses herself to freely integrate German discourse particles, thereby accepting on a wholesale basis situations in which German operators of this class slip into her speech in an involuntary and unplanned manner; in other words, she compromises the selection and inhibition mechanism entirely for a complete class of functional operators, ridding herself of the burden of having to engage in suppressing “wrong language” choices in positions of high interactional tension and intense mental effort to monitor and direct the hearer-side processing of the discourse. In earlier work (Matras 1998, 2000) I have referred to this process as “fusion,” as a way of capturing the resulting wholesale, category-specific merger of forms in one language (here Romani) with those of the contact language (here German).

Naturally, long-term fusion of this kind presupposes the acceptance by a relevant sector of the Romani speech community of regular insertions of German word-forms into Romani discourse. Significantly, although Romani speakers may be said to operate by default in the bilingual mode (since bilingualism is the rule, and lexical insertions such as those discussed in Section 3 are frequent), this acceptance does not amount to a wholesale license to randomly insert just any German word. Rather, it applies specifically to the extended class of discourse operators, indefinites, particles, and connectors – or “utterance modifiers” (see Matras 1998). It is this kind of scenario that one can postulate as the background for language change and the borrowing of an entire class of operators, as is the case in Domari discussed above. In this language all connectors, most
focus and modal particles, and most indefinites have been borrowed from the contact language, Palestinian Arabic. The systems of monitoring and directing the interaction are thus identical or almost identical in the two languages. For Domari speakers, speaking their native language is therefore characterized by employing a particular set of vocabulary items and inflections, but not by employing a particular system of clause linking or interaction-level directing. Much like those German-English bilinguals who have only a single word-form for internet, computer, design, and so on, Domari bilinguals have but one system of clause linking and utterance modifying.

(19) Domari: Fusion of clause linking devices
(Arabic-derived forms are italicized):

\[ \begin{align*}
\text{ā dā'īman/ ya'īnī/ kunt ama kury-a-m-ēk wala} \\
\text{and always that.is was.1SG I house-OBL-LOC-PRED.F and not} \\
\text{kil-šamī wala aw-amī. wala waddīk-ar-m-i maḥall-ak} \\
\text{exit-1SG and.not come-1SG and.not bring-3SG-1SG-PRES place-INDEF} \\
\text{ya par-ar-m-i wās-is kamk-am, ā par-ar-i} \\
\text{or take-3SG-1SG-PRES with-3SG work-1SG.SUBJ and take-3SG-PRES} \\
\text{plē-m. ā gištanē-san kānu ya'īnī Šamilk-ad-m-a} \\
\text{money-1SG and all-3PL was.3PL that.is treat-3PL-1SG-REM} \\
\text{mišš ghāy kury-am-a bass kānat dāy-os} \\
\text{NEG good house-OBL-LOC but was.3SG.F mother-NOM.3SG} \\
\text{ḥayyat-ē-ki ghāy wās-im. pandžī rabbik-ed-os-im.} \\
\text{OBL-ABL good with-1SG she bring.up-PERF-NOM.3SG-OBL.1SG} \\
\text{ya'īnī lamma kānat ḥayyāt far-m-a wila 'īšī} \\
\text{that.is when was.3SG.F hit-1SG-REM or something} \\
\text{kānat ḥazzirk-ar-s-a.} \\
\text{was.3SG.F warm-3SG-3SG-REM}
\end{align*} \]

'And I was always/ I mean/ at home, not going out nor coming nor did she take me anywhere. Or else she used to take me with her to work, and she used to take my money. And they all used to treat me badly at home. But Hayyat's mother was nice to me. She brought me up. I mean, whenever Hayyat used to beat me or anything she used to tell her off.'

With relatively high frequency, discourse markers are subjected to language selection errors or malfunctions of the type illustrated above. They are also frequently of bilingual They are frequent languages at an intermediate stage in its bilingual language, and are often employed by bilingual monolingual interactional malfunctioning bilingual sociolinguistic.

As argued for the direction of "social pre-out the process of and comm or category"

Let me base the above on related_str settings (the mode in so constructio linguistic rep inhibit thos tion and in proficiency, partially, disrupt dysfunction, or fatigue, another), a usually dem speaker. Direction of demanding forms that around oth in (20)--(25) patterns an an"
frequently adopted from a contact language into the regular, stable idiolect of bilingual speakers (see for example Maschler 1994, 1997; Poplack 1980). They are frequently borrowed by “smaller” or “weaker” languages, that is, languages whose population tends to be bilingual or was bilingual at some stage in its history. The source of the forms in such cases is a “dominant” language, a language that was used in the public domain, often supported by institutions and literacy, and often spoken by a large population of monolinguals. All this allows us to postulate a direct link between selection malfunctions, their acceptability and stabilization in certain kinds of bilingual settings, and long-term language change (again, under certain sociolinguistic conditions).

As argued already in the opening remarks of this article, I disagree with the direction of research that simply attributes borrowing of this kind to “social pressure,” “prestige,” or “social circumstances,” without spelling out the precise link between the social setting, conversational pressure and communicative intent, and the specific functional role of the structure or category in question.

Let me therefore summarize the case, again, for an integrated, activity-based approach to the borrowability of the class of discourse markers and related structures. Bilingual speakers are under pressure to conform to monolingual rules on discourse formation, at least in some interaction settings (though a bilingual mode may well be the default conversational mode in some communities). This requires them to select those structures, constructions, word-forms, and so on from within their multilingual linguistic repertoire that are contextually appropriate, and to suppress or inhibit those that are not (cf. Green 1998; Paradis 2004). While this selection and inhibition mechanism is a normal and integral part of bilingual proficiency, it is not immune to occasional malfunctions. Being, essentially, disruptions in the mental processing procedure of language, these malfunctions are more likely to occur under circumstances of distress, fatigue, or confusion (such as a recent move from one environment to another), as well as around interaction management tasks that are particularly demanding and require increased mental effort on the part of the speaker. Direct intervention in the listener’s processing of language and direction of the listener’s participation in the discourse belong to these demanding tasks. Selection malfunctions around the structures, and word-forms that trigger the relevant operations, are more likely to occur than around other structures. This explains the borrowing hierarchies presented in (20)–(25), which are based on examinations of frequency of borrowing patterns and the correlation between the borrowing of individual paradigm values, based on a sample of over 80 dialects of Romani in contact
with various languages (Elšík and Matras 2006), as well as on a cross-linguistic sample of languages in contact (Matras 2007):

(20) contrast > disjunction > addition (‘but’ > ‘or’ > ‘and’; ‘only’ > ‘too’; concessive > most other subordination markers; ‘except,’ ‘without,’ ‘instead of’ > most other adpositions)

(21) superlative > comparative
(22) discourse markers (including fillers, tags, interjections) > focus particles, phrasal adverbs > other function words
(23) indefinites > interrogatives > deixis, anaphora
(24) modality > aktionsart > future tense > other tense/aspect
(25) obligation > necessity > possibility > ability > desire

Contrast, and related semantic-pragmatic dimensions such as restriction (‘only’), exemption (‘except’), concession (‘even if,’ ‘although’), and substitution (‘instead’), are prone to tension and so to selection malfunctions due to the clash between the speaker’s communicative intentions and the listener’s expectations (based on shared contextual presuppositions). A similar contrast between an individual case and a set, and hence between the speaker’s chosen thematic focus point and an expected, presuppositional context, is conveyed by the superlative. Discourse markers and related operators participate in the management of interaction roles and the relations between speaker and listener, in particular by monitoring and directing the listener’s participation (for example tags, fillers, and hesitation markers), and are thus instrumental in processing (mental) clashes between speaker and hearer expectations. Indefinites delegate, as argued above, extensive processing work to the listener, risking the latter’s inability or refusal to cooperate and hence a breakdown in the effectiveness and efficiency of the communicative interaction. Modality conveys the speaker’s relative weak authority to guarantee the truth-value of a proposition and therefore opens a potential window, yet again, for the listener’s refusal to cooperate and a communication breakdown. Naturally, it is not suggested that speakers are in any way aware of these effects of functions such as indefiniteness and modality on the hearer, or that they pre-empt potential breakdown in the communication. Rather, the pragmatically outstanding function of these categories will lead to pressure in the processing procedure, which in turn may frequently trigger malfunctions. These malfunctions eventually become tolerated, in some speakers’ communities at least, and are no longer subjected to self-repair. At that
stage, they compete as variants with inherited forms, or they simply enrich the inventory of forms in these categories.

Note that of the tenses, the most prone to contact-induced change is the future tense, which due to its project of unverified events is itself close to modality (cf. Comrie 1989). Finally, the hierarchy of borrowing for modality categories themselves (25) reveals that the association of events and actions with external pressures, which are beyond the speaker’s control, is more likely to trigger borrowing (and the underlying process of disruptions of the selection mechanism) than those associated with internal attitudes or aptitude.

The susceptibility of linguistic operations triggering increased tension and mental effort to be subject to lapses in control over the language selection mechanism is thus directly reflected in the likelihood that categories representing these very same linguistic operations will undergo structural borrowing. How, then, can we connect what is an event affecting the individual speaker’s performance in discourse (selection malfunction and bilingual speech production error) with what is by necessity and definition a social process, namely an alteration to the permanent shape of a community’s language?

Many, perhaps even most, individual lapses will not lead to language change; they will either be self-repaired by the speaker, corrected by the listener, or ignored by the participants. But an effort will be made by the speaker to avoid them in order to avoid a breakdown in communication or simply to avoid the embarrassment of apparent ineptness. However, frequently occurring selection malfunctions may become stabilized in an individual’s idiolect as they are left uncommented upon and at the same time understood by a regular audience of interlocutors. Such a situation may arise in groups of bilinguals whose default conversation mode is bilingual, and where normative intervention in language use is not intense and flexibility in linguistic choices is tolerated. Normally, such a situation would tend to point toward a diglossic imbalance in the roles of the two languages, with one, the source of borrowings or donor language, being the more dominant and institutionally protected language of a monolingual community and of public life, and the other, the borrowing or recipient language, being limited to a bilingual minority, typically used in informal domestic situations and possibly confined to oral use only, and hence coupled with a low awareness of language structure and low motivation to intervene and consciously shape language use. If the same expressions become stabilized among a group of individuals in such a community, then the process of language change will have been set in motion.
6. Language manipulation (deliberate mixing)

In Section 3 I discussed lexical insertions. I mentioned their ambiguous status: they are quasi-violations of the rules on the selection of context-appropriate linguistic material, and thus effective triggers of special conversational emphasis or specific associations. At the same time they are understood by the interlocutors, and so are communicatively effective. They are also sanctioned by the availability of the bilingual mode (Grosjean 2001) as an option for structuring conversation among the group of interlocutors. My final section is devoted to an even more daring violation of the rules on contextual well-formedness (that is, monolingual selection), one that does not even enjoy the exemption that the bilingual mode is normally able to provide.

Consider example (26), from the same trilingual (Hebrew-German-English) child discussed above. The child’s default languages of interaction are German with the mother, Hebrew with the father, and English outside the home. As we saw earlier, lexical insertions are acceptable in a bilingual mode within the household, as long as the insertions represent concepts that trigger specific associations with the English-speaking (or other, as the case may be) environment. In (26), the child is addressing the father, but violating the normal pattern of language choice by using English. On top of that, he further violates even the norms of a hypothetical (reconstructed or imitated) English-speaking interaction setting by inserting into his utterance in (c.) everyday words from German that carry no individual special effect of their own; that is, unlike “normal” insertions, they do not represent concepts that are associated specifically with a German-speaking environment, and so are not intended to evoke such associations through some kind of original context-bound authenticity:

(26) (Hebrew); age 8:6, calling to his father from the bathroom when washing his face before going to bed in the evening (insertions in segment c. from German):

a. Child: Aba!
b. Father: Hmm.
c. Child: Where do I get a Lappen so I can wisch my Gesicht? wash-cloth wipe face

The German insertions are thus not selected individually because of their content. Rather, their purpose is to have a wholesale “humorous” effect on the utterance. This effect is brought about precisely by highlighting the deviational aspect. To this extent they deviate from utterances that might result in a more straightforward, less humorous. It requires a trained ear to notice them. Furtsequent speaking is experienced by the hearer as an amusing play on words. It may feel for the hearer as a humorous deviation from the likely responses of the hearer. Such deviations may result in a considerable degree of fun for the speaker.

It is not clear whether the child realizes this or not. It may be that a well-equipped playful speaker can improvise in this fashion. But it is clear that the child is not of deliberate meaning. The combination of the two languages is not meant to imitate an adult bilingual mode, but rather is an attempt to produce a more humorous effect. The use of German words in the utterance is a way of adding a playful twist to the conversation.

(27) Israel israel

ilu yod

if 1-

Neither of the languages is used in isolation, but this is natural strategy in mixed language situations. The implications of this potential playful use among children are not well understood, but they appear to be an important part of the development of language skills.
the deviation from the full range of any expected, norm-compliant utterance. To this end, the assembly of the utterance is being manipulated to deviate from the usual types of either monolingual or bilingual (mixed) utterances that might occur in interaction between the child and his father. Such a step requires a high degree of linguistic skill and linguistic awareness. It requires first of all an awareness of the full range of possible, permissible mixture types, in order to identify a type that is deviant from those. Furthermore, it requires the self-confidence of a skilful and competent speaker to experiment with a type of mixed utterance that is seldom experienced in everyday interaction, and for which there is hardly an existing model in either parental or peer speech. This in turn requires a subtle feel for the immediate context and setting, anticipation of the possible and likely responses on the part of the listener, and a positive assessment of the chances of the utterance to achieve its intended key effect rather than result in a communication breakdown.

It is noteworthy that a multilingual child as young as eight is already equipped potentially with the necessary skills and linguistic confidence that allows him to manipulate language mixing in this way. Similar patterns of deliberate mixing for special effect are documented from the speech of adult bilinguals by Golovko (2003). The following example, from the Hebrew of Israeli students in Germany, illustrates a structurally rather subtle approach to language manipulation, once again for the purpose of humor. It involves the imitation of the German morphophonological rule on the formation of conditionals (the so-called second subjunctive) through umlaut – German ich konnte ‘I could,’ wenn ich könnte ‘if I could’ – and its importation into Hebrew, which lacks not only the phenomenon of umlaut altogether, but even the resulting rounded phoneme itself. The basis is the Hebrew past-tense form yaxōlti ‘I could’:

(27)  Israeli students in Germany; imitation of German subjunctive:

    yaxōlti

    if  I-could

Neither of the two preceding examples is likely to lead to language change, but this is not because of the nature of the communicative task or the structural strategies being pursued by the bilingual speakers in order to achieve it. The improbability of language change stems from the restrictions on potential propagation of the innovative structure to general and regular use among a sector of the speech community. This in turn has to do strictly with the number of bilingual interlocutors in the community and
their frequency of interaction, the frequency with which they resort to overtly marked humorous keys in conversation, and the availability of other modes, apart from language manipulation, to mark out that humor, and so the overall degree of utility that the construction may have to its users, as well as the degree of flexibility for carrying on shaping patterns of language use free from any restrictive, normative intervention. All this, which we might attribute to the “sociolinguistic circumstances” of the speech community or perhaps just a small sector within it, are not, however, triggers for contact-induced change, nor are they mechanisms for change. Rather, they are factors that may or may not facilitate or contain the spread of innovations throughout a population of speakers, and the consequent emergence of change.

The communities of Jewish cattle-traders in pre-war southwestern Germany had developed an in-group speech mode, called Lekoudesch, that was characterized by the insertion of Hebrew-derived word-forms, largely lexical content words, recruited via the community’s exposure to the study of Hebrew and Hebrew scriptures, into their regional dialect of German.6

(28) Lekoudesch:

*Der schäft de ganze Jomm im Uschpiss, un duat immer harme*

he sits the whole day in pub and does always much

*schasskenna und meloucht lou.*

drinking and works not

‘He sits all day in the pub, and drinks a lot, and doesn’t work.’

The principal goal for which Lekoudesch was employed was as a mode of humor and entertainment for members of the group of traders, and as a means of setting them apart from outsiders, including using the language to camouflage content. The term for the variety itself, *Lekoudesch*, is a humorous word-play based on the traditional Ashkenazic term for the Hebrew language, *loshn koudesch* meaning “the sacred language.” The social setting prerequisites for stabilization are thus present in the existence of a group of interlocutors – not even a speech community in the usual sense of the term – who find continuous use for a consciously created, humorous speech mode based on their multilingual competence, through

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6. Data from recordings among Jewish survivors as well as non-Jewish farmers who had learned the variety in their youth while being employed by Jewish cattle-traders.
which they can set themselves apart from others and thus reaffirm their
group identity and group affiliation.

My final example is a case in which this stabilization of language mixing patterns has led to the creation of a stable repertoire that is the property of an entire ethnic minority, and thus of a speech community, and is sometimes even referred to as a “mixed language,” the English-Romani mixture or Angloromani of English and Welsh Gypsies.

(29) Angloromani:

Ol the obben coz when the raktis jels I’m gonna mor yas.

‘Eat the food coz when the girls go I’m gonna kill you!’

Speakers or rather users of Angloromani have at their disposal a special inventory of Romani-derived words covering typically anywhere between 150 and 700 distinct word meanings. Some meanings are covered directly by Romani words that have been preserved, others through compounding and extensions of inherited Romani base-words. The Romani lexical legacy dates back to the use of inflected Romani as the everyday community language of the Gypsy minority, until the shift to English during the second half of the nineteenth century left no fluent speakers of Romani in the community. Holding on to a selection of Romani lexical items thus amounts to a preservation of an important token of older community heritage.

Functionally speaking, the availability of a form of speech that sets group members apart from others continues to be an important motivation for the preservation and cultivation of Romani-derived vocabulary. As such, Romani words are now inserted in order to obtain a special conversational key. While there is no obligation on the speaker to insert any particular word, or even clusters of words, from Romani, the insertion of a Romani element will give the entire speech act the flavor of a special emotive mode that will activate the cultural bond between speaker and listener, and call on the listener to interpret what has been said in light of that bond. Romani thus becomes an instrument for intimate comments as well as for warnings, for threats that are based in empathy, as in (30), as much as for secretive content that is to be concealed from bystanders (cf. Matras et al. 2008).

7. Conclusion

I hope to have shown in this article that neither categorizations of contact phenomena based on formal-structural factors nor those based strictly on social factors can explain the motivation behind contact-induced language
change. Social factors are involved in facilitating or constraining the successful propagation of innovations throughout a speech community. Structural factors may also play a role in constraining or facilitating change, but structures are there in the first instance as triggers of language-processing tasks.

Contact-induced change is the product of the creativity of speakers seeking new ways to achieve goal-oriented tasks in communicative interaction. Their creativity results in innovations, which in turn may or may not be replicated by other speakers, or even by the same speaker on subsequent occasions, and hence they may or may not lead to language change. But while not every innovation will lead to change, there is no change that is not the product of a task-bound, goal-oriented innovation, introduced into discourse by a creative speaker.

<table>
<thead>
<tr>
<th>non-conscious</th>
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<td>selection malfunctions &gt; pattern-replication &gt; lexical insertion &gt; speech manipulation</td>
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**Figure 3.** The continuum of contact-induced creativity and innovation

Speakers’ creativity may be arranged on a continuum ranging from those processes that are non-conscious but nevertheless the product of a function-driven strategy for coping with task-specific language processing, through to those that involve a degree of deliberate and conscious defiance of general rules that normally govern the structuring of communicative interaction. All four types of creativity discussed here – selection malfunctions, pivot-matching, lexical insertions, and speech manipulation – involve some form of negotiation of two opposing pressures: the constraints on selecting only those structures that are considered appropriate and so acceptable in the ongoing interaction context, and full exploitation of the speaker’s overall repertoire of linguistic forms and structures, within which it is impossible to completely deactivate one of the “language systems.” The conscious negotiation and manipulation of the two poles usually targets some kind of special conversational effect, whereas less conscious and less deliberate negotiation is more concerned with ease of the processing load and relaxation of the constraints on context-appropriate selection.

The more extreme case of non-conscious negotiation, that of selection malfunctions, represents the speaker’s way of giving in to competing pressures by allowing one – the need to select a functionally effective structure – to triumph over another, as in the case of the use of a word, phrase, or structure that is not ‘correct’ or well-formed in the language of the target community, as in the example Turkish verbs that are not used in sensitive social situations.

At the other end of the continuum, that targets within it, a, thus achieving more than the one that reproduces the forms of the multi-linguistic world into the singular focus of the task at hand, the selection of words and support structures in such instances is reserved. Here it is the selection of words, and sometimes insertion into the speaker’s repertoire, that is more important in supporting the intended communicative function and target audience.

To sum up, the product of both these approaches, as task-effect and goal-oriented strategies, the process of language change is complex and involves multiple factors, including both structural and non-structural elements that interact in various ways throughout the language-landscape.
to triumph over the other – the need to select context-appropriate structures. The less extreme case, pattern replication, constitutes a compromise, with a functionally effective construction selected despite the fact that it fails to satisfy the constraint on context-appropriateness, but adapted using word-forms that do satisfy context-appropriateness. While we may continue to regard most formations of this latter type as non-conscious, some, such as luggage room in example (7), may indeed be semi-conscious formations, while others still, such as the nativization of loanwords (for example Turkish okul ‘school,’ from French école modified to utilize the Turkish verb-root oku- ‘to read’), are carefully planned.

At the “conscious” far end of the continuum we find deliberate mixing that targets the entire speech act, rather than just individual references within it, and is usually designed to alter its key rather than its content, thus achieving an effect at the level of the interaction as a whole, rather than at the propositional level of the message content. The speaker’s goal in such instances is obviously to exploit the contrast between components of the multilingual repertoire, so as to direct the key of the interaction and so the special relations with the interlocutor (or audience of interlocutors). The milder form of conscious or deliberate mixing involves mere insertions of word-forms that are deemed to capture the contextual nuances associated with the type of interaction settings for which they are normally reserved. Here, the goal is to maximize precision of expression, rather than to influence the key of the utterance itself, although taking the liberty to insert word-forms from another language will inevitably also signal the speaker’s reliance on the listener’s solidarity and empathy in accepting and supporting the choice of mixing as a legitimate speech mode. Indeed, some insertions, certainly those involving the mere naming of institutions or procedures, as in example (2), will occur spontaneously and with little or no planning at all, placing them perhaps at a similar level of semi-consciousness as some types of pivot-matching.

To sum up, I have argued that contact-induced language change is a product of the propagation of creative innovations introduced by speakers as task-effective means to achieve communicative goals. The key to understanding the position of individual structures and structural categories in the process of contact-induced change is to interpret the role of those structures in triggering linguistic-mental processing operations that support specific communicative tasks. The role of social and societal aspects in the process of contact-induced change is, in turn, to act as facilitators in the propagation of an innovation, allowing it to gain acceptability and replication and ultimately a useful role among the inventory of structural-communicative devices that a speech community has at its disposal.
Abbreviations

1 First person
2 Second person
3 Third person
ABL Ablative
ACC Accusative
ATTR Attributive
COMP Complementizer
CONSTR Construct state
DAT Dative
DEF Definite (article)
DEIC Deixis
F Feminine
LOC Locative
M Masculine
NEG Negation
NOM Nominative
OBL Oblique
PART Particle
PAST Past tense
PL Plural
POSS Possessive
PRED Predication
PRES Present tense
REL Relativizer
REM Remote
SG Singular
SUBJ Subjunctive

References


Contact-

Claudine

1. Introduction

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Dynamics of Contact-Induced Language Change

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