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- Labov, William/Waletzky, Joshua (1967) "Narrative analysis", in: *Essays in the verbal and visual arts*, Helm, J., ed., Seattle, 12–44.
- Lavandera, Beatriz R. (1976) "Buenos Aires Spanish: Tense variation in *si*-Clauses", *Pennsylvania Working Papers on Linguistic Change and Variation* 1, 7, Philadelphia.
- Lavandera, Beatriz R. (1978) "Where does the sociolinguistic variable stop?", in: *Language in Society*, 7, 171–182.
- Linde, Charlotte (1974) *The linguistic encoding of spatial information*, diss., Columbia University.
- Linde, Charlotte/Labov, William (1975) "Spatial networks as a site for the study of language and thought", in: *Language* 4, 924–939.
- Rickford, John R. (1975) "Carrying the new wave into syntax: The case of Black English BIN", in: *Analyzing variation in language*, Fasold, R./Shuy, R., eds., Georgetown, 162–183.
- Romaine, Suzanne (1980) "The relative clause marker in Scots English: diffusion, complexity, and style as dimensions of syntactic change", in: *Language in Society*, 9, 221–247.
- Sankoff, Gillian (1972) "Above and beyond phonology in variable rules", in: *New ways to analyze variation in English*, Bailey, Charles—James N./Shuy, Roger W., eds., Georgetown, 44–61.
- Sankoff, Gillian/Brown, Penelope (1976) "The origins of syntax in discourse: A case study of Tok Pisin relatives", in: *Language*, 52, 631–666.
- Sankoff, Gillian/Thibault, Pierret (1979) "The alternation between the auxiliaries *avoir* and *être* in Montreal French", in: Sankoff, G., *The social life of language*, Philadelphia, 311–345.
- Schiffirin, Deborah (1981) "Tense variation in discourse", in: *Language*, 57, 45–62.
- Shuy, Roger W., ed. (1973) *Sociolinguistics: Current trends and prospects*, Georgetown.
- Shuy, Roger/Wolfram, Walter/Riley, William K. (1967) *Linguistic correlates of social stratification in Detroit speech*. Office of Education, Washington, D.C.
- Silva-Corvalán, Carmen (1983) "Tense and aspect in oral Spanish narrative", in: *Language*, 59, 760–779.
- Singler, John V. (1983) "Liberian English *feni*: AUX and ADV", forthcoming in: *Journal of African Linguistics*, Los Angeles.
- Tarallo, Fernando (1986) "Functional and structural properties in a variable syntax", in: *Diversity and diachrony*, Sankoff, D., ed., John Benjamins, 249–260.
- Wald, Benji (1973) *Variation in the tense markers of Mombasa Swahili*, diss., Columbia University.
- Wald, Benji (1976) "The discourse unit: a study in the segmentation and form of spoken discourse", forthcoming as "On the discourse unit" in: *The structure of discourse*, Polanyi, L., ed., Ablex.
- Wald, Benji (1982) "Syntacticization in language development: Clause status variation", forthcoming in: *NWAVE XI*, Fasold, R./Schiffirin, D., Georgetown.
- Weiner, E. Judith/Labov, William (1983) "Constraints on the agentless passive", in: *Journal of Linguistics*, 19, 29–58.
- Wolfram, Walter (1980) "A-prefixing in Appalachian English", in: *Locuting language in time and space*, Labov, W., ed., New York, 107–142.
- Wolfson, Nessa (1979) "The conversational historical present alternation", in: *Language*, 55, 168–182.

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## 129. Code-Switching

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### 1. The Bilingual Context

The mixing of two languages in bilingual discourse may take many forms and be the result of several processes: code-switching, borrow-

ing on the community and individual levels, incomplete language acquisition, interference, among others. Because they all result in sentences containing elements of two languages, these different bilingual behaviours are often confounded. In what is by now a formidable body of literature on the subject, all have been used as evidence about code-switching patterns. But since these outcomes of language contact are based on fundamentally different mechanisms, it is misleading to use data generated by one as evidence about the other.

Attempts at assessing the true status of these incommensurable phenomena will fail unless they first distinguish community-wide from individual, and perhaps idiosyncratic, behaviour. This is because too many variables which are crucial determinants of bilingual behaviour cannot be inferred without detailed knowledge of: (1) the bilingual ability of the speakers in each of the languages, (2) the nature of the two monolingual codes in question as they are actually used in the bilingual community, and (3) the social role or function of language mixing.

For discussions of these factors, see, e.g., Blom Gumperz (1972); Gumperz ([1976] 1982), Poplack 1980; 1981; Valdés 1981; Poplack 1985; Scotton 1987. In the following sections, we illustrate the interaction of contextual and linguistic aspects of bilingual behaviour in various communities.

## 2. Method

The patterned nature of utterances containing elements from more than one language may be predictable to some extent from a particular combination of community-level or individual factors. Yet there is no way of inferring this information from any but systematic examination of the languages as used in the speech community. Thus, while much work on bilingual discourse has used other methodologies, such as informant elicitation, subjective reaction tests, even introspection by the bilingual linguist, these can only be taken as very indirect evidence of how bilinguals actually use both languages in "real" situations. Grammatical intuitions about bilingual sentences, even by fluent bilinguals, are notoriously misleading. And even where conscious production of, or reaction to, specific types of construction does bear some relationship to real usage, sociolinguistics has taught us that the study of isolated examples cannot distinguish between the systematic recurrent patterns of everyday interaction, and other structures, which may be "acceptable" in some sense, but which never or rarely occur.

## 3. Combining Different Grammars

### 3.1. Problems

When two languages are to be used in a single sentence, various problems of incompatibility may arise. The most obvious derives from

word-order differences between the two languages — if a switch occurs at the boundary between two constituents or elements which are ordered differently in the two languages, the resulting configuration will at least be awkward by the standards of one of them, and at worst may involve omission or repetition of entire constituents. For example, English ADJ + N generally corresponds to French N + ADJ, so that *white maison* and *maison white* conflict with French and English patterns respectively, and *blanche house* and *house blanche* are even more unnatural. Another type of difficulty involves different sub-categorization patterns in the two languages, so that if a switch occurs between the verb and its complement, the result will seem ungrammatical according to at least one of the languages. In some contexts there are phonological or other difficulties in affixing inflectional morphology of one language to free morphemes of the other. And there are many other problems having to do with semantic differences, idiomatic constructions, etc.

It has been observed in systematic studies of bilingual communities that speakers tend to avoid these difficulties. They tend not to switch in ways which produce monolingually ungrammatical fragments. And claims to the contrary can inevitably be attributed to the methodological shortcomings mentioned in Section 2.

### 3.2. The Equivalence Constraint

How do speakers go about avoiding these difficulties? In the following sections we illustrate four mechanisms, each of which is used in at least one well-documented bilingual community. These are: smooth code-switching at equivalence sites, flagged code-switching, nonce borrowing and constituent insertion.

Smooth code-switching, sometimes called switching under the *equivalence constraint*, involves changing the language of the sentence only at syntactic boundaries which occur in both languages (Poplack 1980; 1981). For example, if the two languages were strictly SOV and SVO, respectively, no switch from either language to the other would occur between verb and object (or vice-versa), but switches could occur freely immediately after the subject. For a VSO/SVO pair, on the other hand, switches could occur before the object, but not between subject and verb (or vice-versa). Smooth code-switching, while grammatically constrained by constituent struc-

ture, is basically a real-time production phenomenon occurring at a single point in a sentence string. (There may be several such switches in a single sentence, as long as they occur at equivalence sites, but there is no necessity, for example, that there be a switch back to the original language after a "switched" constituent.)

A mathematical model for generating code-switched sentences under the equivalence constraint using simple phrase-structure grammars has been developed by Sankoff/Mainville (1986a; 1986b).

### 3.3. Inserting Whole Constituents

*Constituent insertion* differs from switching at equivalence points in that it is not constrained by word order relations. It involves simply the insertion of a grammatical constituent in one language at an appropriate point, for that type of constituent, in a sentence of the other language. Completely unconstrained constituent insertion implies an unrealistically free mixture of the two languages, and most models allowing insertion restrict it to certain types of constituent (cf. Woolford 1983; Joshi 1984). A dominant pattern of constituent insertion may be distinguished from equivalence-based switching by a strong tendency to switch "back" to the original language after a single constituent in the other language.

### 3.4. Non-Smooth Switching

*Flagged switching* differs from both of the previous patterns in that syntactic constraints are not operative, though they may be respected in some cases. These switches are marked at the discourse level by pauses, hesitation phenomena, repetition, metalinguistic commentary, and other means of drawing attention to the switch, with the result of interrupting the smooth production of the sentence at the switch point.

### 3.5. Nonce Borrowing

The use of loanwords is not necessarily a bilingual phenomenon in that monolingual speakers of the recipient language have full access to established loans. Loanwords are traditionally thought of as being phonologically, morphologically and syntactically integrated into the recipient language and as being recurrent and widespread. In general, however, borrowing is a much more productive process and is not bound by all of these constraints. In particular, the social characteristics of recurrence (in the speech of an

individual) and distribution (across the community) need not be satisfied. This type of borrowing, which necessarily depends on a certain level of bilingual competence, is sometimes called *nonce* borrowing (cf. Weinreich 1953). It is very similar to borrowing in the traditional sense, not only because it involves single lexical items, syntactically and morphologically (if not always phonologically) integrated into the recipient language, but also because eligible words are of the same type: largely nouns, with some representation of other content words (verbs, adverbs and adjectives), but no pronouns, articles, prepositions or other function words.

## 4. Smooth versus Flagged Switching

We first illustrate with two bilingual situations which are superficially similar from both sociological and linguistic points of view, but where very different strategies are used for handling incorporations from the same donor language.

In one set of studies of a stable bilingual Puerto Rican community in New York (Poplack 1980; 1981; cf. also Zentella 1982), code-switching between Spanish and English was found to be such an integral part of the community linguistic repertoire that it could be said to function as a *mode* of interaction similar to monolingual language use. A key aspect of this linguistic behaviour is that intrasentential switching occurs with smooth transitions, and no special rhetorical effect is accomplished thereby. Switching is confined to equivalence sites — syntactic boundaries where none of the problems of grammaticality mentioned at the beginning of Section 3 are incurred.

While such smooth intrasentential switching is not confined to Puerto Ricans — indeed, it is also characteristic of fluently bilingual Mexican Americans empirically studied (Pfaff 1979) — it may well be relatively rare in other communities which are equally bilingual. One example was documented in a large-scale study of the code-switching behaviour of 120 speakers of French and English in the Ottawa—Hull region of Canada (Poplack 1985). French is of course typologically very similar to Spanish, so patterns of code-switching in the two communities should be similar if not identical, if the structural properties of the languages involved were a key determining factor. However, the type of code-switching used in Ottawa—Hull is dra-

matically different from that attested among the Puerto Ricans. Only a small proportion of the French-English switches make use of equivalent boundaries in the two codes. Instead of weaving the two languages smoothly together at imperceptible switch points, the French Canadians draw attention to the switch by any one of a number of discourse devices. The use of virtually every switch serves a rhetorical purpose, whereas for the Puerto Ricans, a smooth switching style is itself a speech mode emblematic of community identity.

Indeed, in order for the switch to accomplish its purpose in the French community, it must be highlighted, or flagged, i.e. salient, and should not pass unnoticed. One byproduct of this is the interruption of the speech flow at the code-switch point, effectively circumventing a grammaticality requirement.

Thus while the linguistic configuration involved is typologically very similar in the two communities, as indeed are many aspects of their social situations, and while both make plentiful use of code-switching, the syntactic constraint obtaining in one is largely irrelevant to the other, because of the dramatically different discourse functions which code-switching serves.

### 5. Code-Switching and Borrowing

The contrast between the two communities described in Section 4 shows that not all data constitute acceptable evidence regarding the operation of syntactic constraints. Ungrammaticality is avoided in the French-English data, but this is only a trivial consequence of the flagging of switches.

Even if we can establish that speakers are indeed alternating between languages in a smooth, unflagged way, we must determine whether the other — language material in fact constitutes a code-switch, or is a borrowing (or some other consequence of language contact).

In empirical studies, it is often impossible, in a given sentence, to tell whether a genuine switch has taken place. Borrowing is a very different process from code-switching, subject to different constraints and conditions; thus failure to separate the two can only lead to confusing results.

The latter problem has prompted a number of studies on the characteristics of loanwords, in part with a view to identifying them (Mackey 1970; Poplack/Sankoff 1984; Pop-

lack/Sankoff/Miller 1988). Thus, for the same Puerto Rican data, it was found that loanwords from English were phonologically, morphologically and syntactically integrated into Spanish, were recurrent and widespread, and that an English word not satisfying these criteria only occurred in English monolingual discourse or in code-switches from Spanish to English.

For nonce loans, however, the extralinguistic characteristics of recurrence in the speech of an individual and widespread distribution in the community do not hold. It is doubly difficult to distinguish loanwords from code-switches when this process is prevalent, hence tests of syntactic constraints on code-switching must be carefully controlled.

At one level, the preference for code-switching versus borrowing is typologically determined. We remarked earlier that the Spanish-English case may be an extreme. Code-switching is copious, transitions are smooth, it occurs at all permissible code-switch boundaries, of which there are many, given the similarities between the languages. Major code-switching sites are between Subject NP and VP, V and object NP, preposition and NP, inside the NP, inside the PP, around coordinate and subordinate conjunctions, etc.

In typologically different languages, word order incongruence makes code-switching problematic because the resulting code-switched sentence risks violating the patterns of both languages. In contrast to the Spanish-English situation, in a case where English coexists with a strongly SOV language, for example, the number of permissible switch boundaries is sharply reduced.

Language mixing has been studied systematically in various sets of typologically different language pairs — Tamil-English (Sankoff/Poplack/Vanniarajan 1986), Finnish-English (Poplack/Wheeler/Westwood 1987) and Arabic-French (Naït M'Barek/Sankoff 1987). In the first two cases there is copious borrowing, whether nonce or established, and sparse code-switching. Indeed, borrowing outweighs code-switching by a factor of at least 5:1. How is borrowing distinguished from code-switching in these studies?

Diachronically speaking, we know that the majority of borrowed words becomes at least morphologically and syntactically integrated into the host language. They are content words which take the same inflections and occupy the same syntactic slots as corresponding native host-language words. In the

synchronic bilingual context, these facts can help distinguish loanwords from their original forms in the donor language, which of course take different inflections and may even occupy different slots. Specific tests for loanword status will vary from one language to another. In Tamil, they include the use of Tamil demonstratives, quantifiers, and articles in the vicinity of English-origin nouns, and most important, Tamil case inflections affixed to these nouns.

Because of the fact that Tamil is an OV language and English is VO, any switch involving an object NP will of necessity violate the word-order patterns of one or both languages. Yet it is precisely in object position where most of the tokens of English origin are found. However, most of these show the properties of borrowing and not of code-switching, i. e. they are accompanied by Tamil function words and Tamil case-marking. The fact that not all of the English-origin words are case-marked, however, raises the question of whether the remainder are code-switches violating English word order. Quantitative analysis of both English-origin and native Tamil direct objects shows that, on the contrary, rates of variable case-marking on Tamil and English words are remarkably parallel. These borrowings contrast sharply with genuine code-switches from Tamil into English, which have no case-marking, no Tamil function words, and begin and end only at syntactic boundaries which are equivalent in Tamil and English.

#### 6. Nonce Loans versus Flagged Switches

Finnish is largely SVO and postpositional with case-marking, and makes little or no use of determiners. Thus in Finnish/English bilingual discourse there are few potential switch sites — equivalence sites — in what corresponds to an English PP, and in most instances within the NP. However, with the exception of a small amount of smooth switching at syntactic boundaries which are congruent in the two languages, we again find that most of the English-origin material, consisting of single nouns and compounds, occurs in locative, directional and other phrases corresponding to English PPs, or in direct object position without a preceding determiner — precisely those sites where switches into English should be excluded.

As in the Tamil data, however, the majority of these nouns follow a Finnish demonstrative functioning as a determiner and/or take the correct Finnish case-marking, indicating they are borrowings and not code-switches. Now, unlike the Tamil illustration, case-marking is obligatory in Finnish, but a good proportion of the English-origin nouns in the data are not case-marked.

When the data were examined more closely, however, it was noted that the presence of English-origin material tends to be associated with an abnormal rate of certain discourse phenomena: in particular, pauses, ratification markers and flags, which in some conversation seem to be entirely confined to a switch-signalling function. The distribution of case-marking and discourse flagging of English-origin single nouns shows that these are in near complementary distribution. This confirms that most of these nouns are nonce borrowings. The remainder — the caseless nouns — are most logically treated as flagged, non-smooth single-word switches. Recall that functional flagging in the typologically similar French-English pair was a way of calling attention to the switches, and rendered a grammaticality requirement irrelevant. In the Finnish-English materials, flagging is associated with production difficulties, despite the fact that all the informants are fluent first-generation speakers of Finnish, as well as of English. This is because these speakers do not belong to a bilingual community in which either nonce borrowing or code-switching (whether smooth as in the Spanish-English and Tamil-English cases, or flagged as in the French-English case) is a discourse *mode*.

#### 7. Constituent Insertion

In a study of Arabic-French bilinguals, Naït M'Barek/Sankoff (1987) document a large number of switches in both directions at equivalence sites, as well as a number of borrowings from French into Arabic only. By far the most frequent type of intrasentential language mixture, however, is neither nonce borrowing, established borrowing nor switching at equivalence sites, but rather insertion of a French NP, including at least determiner and noun (both inflected for person, number and gender) and optionally other elements, in a syntactic slot for an Arabic NP. Many of these — direct objects and prepositional complements — have correspondences in French, but just as many do not. For example, French

determiner plus noun is often inserted after an Arabic demonstrative or predeterminer *wahed*, contexts which take DET + N constructions in Arabic, but whose French counterparts would not permit DET. There are even a number of French DET + N constructions in subject position of otherwise Arabic VSO sentences, which could not occur through equivalence-based switching, since French does not have this word order. There are ten times as many NP insertions in all as there are switches at the equivalence site between Arabic determiner and French noun.

That the process responsible for these data is NP insertion (rather than the equivalence switching predominant in the Puerto Rican data) is further confirmed by a clear statistical tendency for a second switch (back to Arabic) to occur after the French noun *only if this noun is in NP-final position*. If the NP continues, e.g. with an adjective or noun complement, then it is more likely to continue in French.

In the Tamil and Finnish corpora discussed in Section 6, it is inappropriate to analyze the English-origin material in preposition and verb complements in terms of NP insertion, since it obeys recipient-language morphological and syntactic constraints and contains no English determiners or other function words. In the Arabic corpus, on the other hand, the inserted NPs are unequivocally French, not only in terms of syntax and morphology, but even phonology.

In the Tamil materials, however, there is another pattern, not involving nouns or NPs, which may also be analyzed as constituent insertion. Sentential complements in Tamil are generally terminated by a quotative particle followed by a verb; S + *nu* + V, roughly corresponding to English V + *that* + S. A frequent bilingual pattern is English S + *nu* + Tamil V. This cannot be due to code-switching based on equivalence but is rather a clear case of constituent insertion.

Models based on constituent insertion are relatively easy to construct within hierarchical frameworks for grammars. It is undeniable that single-word code-switches as well as uninflected borrowings can be just as easily analyzed as resulting from insertion. Studies of typologically different language pairs, however, have isolated only a few unambiguous types of constituent insertion, though these types may be frequent where they do occur. The type of insertion permitted in one language pair does not generally carry over into

another bilingual context. With exceptions such as those mentioned here, wherever non-equivalence would tend to prohibit constituent insertion, it does not occur.

## 8. Conclusions

The bilingual mechanisms discussed here are discretely different ways of solving the problem of combining material from two different languages. Each of them resembles the others in at least some aspect, and is distinctly different in another. Code-switching, constituent insertion and nonce borrowing are all (potentially) ways of alternating two languages smoothly within the sentence and in this, all contrast with flagged switching. Nonce borrowing differs from the other processes in that it involves syntactic, morphological and (possible) phonological integration into a recipient language of an element from a donor language, whereas the other processes all maintain the monolingual grammaticality of the sentence fragment as determined by the rules of the respective language of its provenance. Indeed, nonce loans differ from established loanwords only *quantitatively* — in frequency of use, degree of acceptance, level of phonological integration, etc. Constituent insertion differs from equivalence-based switching in that word-order constraints *across* switch boundaries need not be respected for those constituents eligible to be inserted. Switching at equivalence sites is the only mechanism which does not involve *insertion* of material from one language into a sentence of the other — once a switch occurs, the rest of the sentence may continue in the new language (although further switches are also possible), whereas the other mechanisms generally require a return to the original language immediately after the nonce loan, inserted constituent, or flagged switch.

On the methodological level, it is often difficult to tell which mechanism has produced a given bilingual sentence. A single word from one language in a sentence otherwise constructed entirely of elements of the other language may be analyzed as a nonce loan, especially if it requires no inflection according to matrix language rules; it may also be considered an insertion of a minimal constituent, if it is in an appropriate lexical slot. It may be analyzed as two switches, if it is situated between two equivalence sites, or it may constitute a flagged switch if accompanied by a neighbouring discourse marker.

The use of quantitative methodology, however, when applied systematically to corpora of bilingual discourse, with special attention to cases where the different mechanisms have *different* manifestations, can contribute greatly to the resolution of these superficial ambiguities.

Thus it has been found that all of the communities described in the preceding sections can be shown to have very different patterns of bilingual behaviour, although in each one we can attest at least some smooth code-switching, at least some nonce borrowing or constituent insertion, and at least some flagging. Nevertheless, it would be unwise to consider the highly-flagged French-English material as the optimum data for the study of smooth code-switching, nor is the Spanish-English situation, with its ease of switching, a good place to analyze nonce borrowing.

Once it is known that the social role of language mixing is propitious to the smooth integration of elements of both codes, typological considerations are predictive of the types of mixture. Similar typologies are conducive to equivalence-based code-switching and conflicting typologies are more likely to result in nonce borrowing and/or constituent insertion.

## 9. Literature (selected)

- Blom, Jan-Petter/Gumperz, John (1972) "Social meaning in linguistic structures", in: *Directions in Sociolinguistics*, Gumperz, J./Hymes, D., eds., New York, 407–434.
- Gumperz, John ([1976]1982) "Conversational code-switching", in: *Discourse Strategies*, Gumperz, J., ed., Cambridge, 59–99.
- Joshi, Aravind (1984) "Processing of sentences with intra-sentential code-switching", in: *Natural Language Processing: Psycholinguistic, computational and theoretical perspectives*, Dowty, D./Karvonen, L./Zwicky, A., eds., Cambridge, 190–204.
- Mackey, W. (1970) "Interference, integration and the synchronic fallacy", in: *Georgetown University Round-Table on Languages and Linguistics 23*, Alatis, J., ed., Washington, D. C., 195–227.
- Naït M'Barek, Mohammed/Sankoff, David (1987) "Le discours mixte arabe/français: des emprunts ou des alternances de langue?", in: *Revue Canadienne de linguistique* (in press).
- Pfaff, Carol (1979) "Constraints on language mixing: intrasentential code-switching and borrowing in Spanish 'English'", in: *Language* 55, 291–318.
- Poplack, Shana (1980) "'Sometimes I'll start a sentence in Spanish y termino en español': Toward a typology of code-switching", in: *Linguistics* 18, 581–618.
- Poplack, Shana (1981) "Syntactic structure and social function of code-switching", in: *Latino language and communicative behavior*, Duran, R., ed., New Jersey, 169–184.
- Poplack, Shana (1985) "Contrasting patterns of code-switching in two communities", in: *Methods V: Proceedings of the V international conference on methods in dialectology*, Warkentyne, H. J., ed., Victoria, B. C., 363–386.
- Poplack, Shana/Sankoff, David (1984) "Borrowing: the synchrony of integration", in: *Linguistics* 22, 99–135.
- Poplack, Shana/Sankoff, David/Miller, Christopher (1988) "The social correlates and linguistic processes of lexical borrowing and assimilation", in: *Linguistics*, 26.1, 47–104.
- Poplack, Shana/Wheeler, Susan/Westwood, Anneli (1987) "Distinguishing language contact phenomena: evidence from Finnish-English bilingualism", in: *The Nordic Languages and Modern Linguistics 6*, Lilins, P./Saari, M., eds., Helsinki, 33–56.
- Sankoff, David/Mainville, Sylvie (1986a) "Un modèle pour l'alternance de langue sous la contrainte d'équivalence", in: *Revue québécoise de linguistique* 15, 233–246.
- Sankoff, David/Mainville, Sylvie (1986b) "Code-switching of context-free grammars", in: *Theoretical Linguistics* 13, 75–90.
- Sankoff, David/Poplack, Shana/Vanniarajan, Swathi (1986) "The case of the nonce loan in Tamil", in: *Université de Montréal Technical Reports 1348*, Montreal.
- Scotton, Carol M. (1987) "Code-switching and types of multilingual communities", in: *Language Spread and Language Policy: Issues, Implications and Case Studies*, Lowenberg, P., ed., Washington, D. C., (in press).
- Valdés, Guadalupe (1981) "Code-switching as a deliberate verbal strategy: a micro-analysis of direct and indirect requests among bilingual Chicano speakers", in: *Latino language and communicative behavior*, Duran, R., ed., New Jersey, 95–107.
- Weinreich, Uriel (1953) *Languages in contact*, The Hague.
- Woolford, Ellen (1983) "Bilingual code-switching and syntactic theory", in: *Linguistic Inquiry* 14, 520–536.
- Zentella, Ana C. (1982) "Spanish and English in contact in the United States: the Puerto Rican experience", in: *Word* 33, 41–57.

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