

The Loanword Typology project: Motivation and first results



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This paper gives an overview of some of the general issues arising when one studies lexical borrowing across languages. It discusses the motivations and goals (§1), kinds of loanwords (§2), and factors determining the borrowing behavior of different languages (§3). The context is a collaborative cross-linguistic project on loanwords and lexical borrowability coordinated by the Max Planck Institute for Evolutionary Anthropology (2003-2007).¹

1. Motivation and goals

One of the most important tasks of diachronic linguistics is to establish *general constraints on language change*. There are two main types of constraints on language change: *paths of change*, which limit the direction that changes can take (cf. Haspelmath 2004), and *rates of change*, which give us an idea about the frequency or speed with which certain types of changes occur.

In the area of lexical change, a lot of work has been done on the rates of change in the lexicostatistical research tradition. While Swadesh (1955) and Lees (1953) seem to have assumed that the replacement rate for lexical items is identical for all the lexical meanings under consideration, it became soon clear that this assumption is overly optimistic (e.g. Sankoff 1970). Moreover, it was often pointed out that the rate of replacement of words on the Swadesh lists is different in different historical situations (more recently e.g. by Blust 2000). Some proposals have been made for identifying the most stable lexical meanings (e.g. Dyen et al. 1967, Lohr 1999), but none of these has been based on a broad database from a representative sample of the world's languages.

One of the most important confounding factors for any type of approach to genealogical classification is *lexical borrowing*. Researchers in lexicostatistics have long recognized this, and at the beginning the hope was apparently that the 200 words on the Swadesh list (or at least the 100 words on the reduced list, Swadesh 1955) are so resistant to borrowing that this confounding factor can be neglected for these word meanings. However, the Swadesh lists do not seem to have been based on any kind of systematic research, but just on Swadesh's intuitive sense of which word meanings would be the most easily identified across languages and at the same time likely to be highly conservative. In any event, subsequent research on language contact showed that borrowing can be quite massive, and that the situation of well-studied Indo-European languages such as German, French or Russian (where loanwords are easy to identify and occur in rather circumscribed domains) may be quite atypical (cf. Thomason & Kaufman 1988).

¹ See <http://www.eva.mpg.de/lingua/files/lwt.html>.

Thus, it is of paramount importance for lexicon-based historical linguistics to get a clearer idea about the *differential borrowability* of different types of words. It should not be difficult to advance our knowledge beyond what current textbooks have to offer in this regards. Typically they invoke a vague notion of "*basic vocabulary*" (or "*core vocabulary*"), e.g.

"From a purely linguistic perspective, the most important fact is that different spheres of the vocabulary are borrowed more easily, others significantly less easily. For instance, the most successful resistance to borrowing is offered by BASIC VOCABULARY, words referring to the most essential human activities, needs, etc., such as *eat, sleep; moon, rain; do, have, be,...*" (Hock & Joseph 1996:257)

"Here it should be noted that the distinction between basic and nonbasic vocabulary is a rough practical distinction, not a well-supported theoretical notion. Several decades ago ... Morris Swadesh devised two lists of basic vocabulary items... His goal was to include only items that are unlikely to be borrowed... There was, and is, no theoretical foundation for this notion of universal-and-thus-hard-to-borrow basic vocabulary, and in fact all the items on Swadesh's list can and have been borrowed. Still, the lists are useful, because in most cases are at least less likely to be borrowed than more culture-specific vocabulary..." (Thomason 2001:71-72)

Hock & Joseph give a sketchy definition of "basic vocabulary" and a short list of examples, but neither is particularly helpful. And Thomason makes no attempt to go beyond Swadesh.

The idea of the ongoing *Loanword Typology project* is that it should be possible to get a clearer idea of lexical borrowability by examining the loanwords in a reasonably representative and reasonably large set of languages (say, 30-40 languages), and by making inductive generalizations over the data assembled in this way. The planned outcome of the project will be an edited volume consisting of 30-40 language-particular chapters and a number of more general chapters that explain the methodological choices and discuss the results. Each language-particular chapter will be authored by a specialist of the language who knows enough about neighboring languages and historical-comparative linguistics of the family to identify the loanwords in the language. The project identifies a fixed list of word meanings which are translated into each language. The list consists of 1460 lexical meanings, most of which are taken from Mary Ritchie Key's *Intercontinental Dictionary Series*.² Each chapter consists of a data part and a discussion part: the data is a list of those words on the project list that can be identified as loanwords, plus perhaps other loanwords whose meanings are more specialized and hence do not appear on the project list. In addition, the source of each loanword is identified to the extent that it is known. The discussion part attempts to generalize over the data and puts the loanword into the relevant

² The Intercontinental Dictionary Series (IDS) is a long-term project founded by Mary Ritchie Key (University of California, Irvine) that aims to publish electronic lexical databases for a large number of languages from around the world. All these databases are based on the IDS Word List (consisting of 1310 items), which is itself an adaptation of the list used by Buck (1949). The IDS is currently being developed further by Bernard Comrie (Max Planck Institute for Evolutionary Anthropology) (see <http://www.eva.mpg.de/lingua/files/ids.html>).

context (structural, historical, cultural, etc.), trying to explain why these words and no others were borrowed. While the data part is relatively standardized, authors have a lot of freedom in the discussion part.

The remainder of this paper will mention a few general issues that will be relevant for any project that studies lexical borrowability in a comparative perspective.

2. Kinds of loanwords

Let me start with some terminology. It is now customary to use the terms *recipient language* for the language that acquires a loanword and *donor language* for the language that is the source of the loanword. A *loanword* can be defined as a word that is transferred from a donor language to a recipient language, and it should not necessarily be equated with "borrowed word", because some linguists define *borrowing* in a narrow way that excludes the effects of shift-induced interference or substrate (e.g. Thomason & Kaufman 1988:37ff.). More general terms for contact-induced change are *transfer* and *copying* (Johanson 2002).

According to Ross (1991), two other kinds of contact situations need to be distinguished, in addition to typical borrowing and typical shift-induced interference. He notes that typical borrowing is created by native speakers who consciously *import* a word from another language, whereas typical shift-induced interference is created by non-native speakers who unconsciously *impose* features of their native language to the recipient language. But imposition may happen to native speakers as well, especially when their native language is not their dominant language. In such cases, according to Ross, native speakers may transfer syntactic features from a dominant language to their native language, resulting in *metatypy* (see also Ross 1997, 2001). Moreover, in addition to importing words from a language spoken by a different group into their language, speakers may also import words from a language of their own group into the majority language, thus creating a new variety of the majority language that expresses the minority group's cultural identity. An example of this might be the Yiddish words used in English by Jewish Americans.

Table 1: Ross's (1991) four types of contact-induced change

		agents of change:	
		native speakers	non-natives
motivation for transfer:	processing ease [imposition]	<i>metatypy</i>	<i>substrate</i> (= shift-induced interference)
	"culture" [importation]	" <i>exo-borrowing</i> " (= adoption)	" <i>endo-borrowing</i> " (= retention)

One of the best-known taxonomies of borrowed items comes from Haugen (1950), who distinguishes between *loanwords* (form and meaning are copied completely), *loanblends* (words consisting of a copied part and a native part), and *loanshifts*, where only the meaning is copied. Loanshifts fall

into two subtypes: *loan translations* (like Spanish *rasca-cielos* from *skyscraper*) and *semantic borrowings*, where only the meaning is copied (like German *kontrollieren*, which originally only meant 'check', but is now also used in the sense 'have control over', as in English).

Myers-Scotton (2002:239) distinguishes between *cultural borrowings* and *core borrowings*, which according to her have very different origins. Cultural borrowings are words for new objects (e.g. *espresso*) or words for new (non-object) concepts (e.g. *zeitgeist*), and they usually appear abruptly when influential groups use them. Core borrowings, by contrast, are words that more or less duplicate already existing words (e.g. *OK* in German, which replaces *gut*, or *einverstanden*). Core borrowings "usually begin life in the recipient language when bilinguals introduce them as singly occurring codeswitching forms in the mixed constituents of their codeswitching".

3. Factors for differential borrowing behavior among different languages

3.1. Intensity of language contact

The most obvious sociolinguistic factor favoring borrowing is widespread bilingualism. This is often called "intensity of contact". Thomason & Kaufman (1988) propose a five-point scale of intensity of contact:

- (1): casual contact,
- (2): slightly more intense contact,
- (3): more intense contact,
- (4): strong cultural pressure,
- (5): very strong cultural pressure).

They claim that beginning with stage 3, we also find "nonbasic" vocabulary among the loanwords.

Brown (1999) finds that there is significantly more borrowing into Native American languages from Spanish than from English or French. The likely explanation, according to Brown, is that Native Americans have often been bilingual in Spanish because they were integrated into Spanish society much more and earlier than Native Americans in the British and French colonies (and later the U.S. and Canada).

An additional factor is probably the prestige of a language, although this of course correlates with widespread bilingualism (people are more likely to learn another language if it is prestigious). However, widespread bilingualism without great prestige does occur (e.g. Spanish and Guarani in Paraguay, where Guarani is spoken by many speakers of non-Guarani origin, but Paraguayan Spanish has very few Guarani loanwords), and languages may be widely regarded as prestigious but still few people speak it (e.g. French in 19th century Europe, or English in much of the world today).

3.2. Purism

It is sometimes claimed that different cultures have different attitudes toward borrowing than others, which would explain differential borrowing behavior (e.g. it is claimed that Icelanders are purists and hence their language has very

few loanwords, cf. *tölva* 'computer', *útvarp* 'radio', etc.). However, unless there is legislation or language academies with a high degree of social acceptance, it seems to be difficult to find evidence for the exact role of speaker attitudes, and we must be careful to avoid circular reasoning.

3.3. Structural incompatibility

Structural incompatibility has often been invoked as explaining reststance to borrowing, although in recent years it has come under attack (especially by Thomason & Kaufman 1988). For grammatical borrowing, it seems undeniable that it plays a role (e.g. it seems very unlikely that an isolating language like Vietnamese would borrow a case suffix), but it is not clear at present whether it might be relevant for lexical borrowing.

3.4. Genealogical relatedness

McMahon (1994:204) implies that related languages are more likely to borrow from each other, especially if they are so closely related that mutual intelligibility is relatively easy to establish. This would explain why English borrowed "basic vocabulary" items such as *skin*, *sky*, *get*, *they*, *them*, *their* from Old Norse.

4. Establishing borrowability through language comparison: two examples

In this section I give two examples of the kinds of results that a systematic cross-linguistic study of loanwords can yield.

4.1. Items of acculturation in languages of the Americas

Brown (1999) examined words for 77 "items of acculturation" (things/concepts unfamiliar to Native Americans before the European invasion) in 292 Native American languages. This research resulted in tables such as Table 2, where lexical meanings are ranked by borrowability. The number following each lexical meaning is the percentage of languages in which it is a loanword from a European language. Thus, 'coffee' is a loanword in 81% of the languages for which Brown has information (not always all the 292 languages), whereas the remaining 19% have native words for 'coffee' (compounds, derivatives, or simple words whose meaning was extended or shifted).

Table 5: Items of acculturation, ranked by index of borrowability (European loan percentage)

		donkey	64	peach	54
coffee	81	lemon	60	mule	54
coriander	72	apple	59	goat	53
cat	70	cow	58	sugar	53
garlic	69	Saturday	56	tea	53
orange	67	pig	55	horse	52
cheese	66	soldier	55	rice	52

table	52	school	35	window	27
soap	51	scissors	35	clock	25
bottle	51	Wednesday	35	grapes	25
watermelon	49	match	34	oats	23
ribbon	48	nail	33	book	22
cabbage	47	candle	32	needle	21
lettuce	47	spoon	31	paper	20
hour	45	shovel	30	hundred	19
sheep	44	bread	29	beets	18
onion	41	flour	29	thread	17
key	41	board	28	chicken	16
barley	39	butter	28	town	15
turnip	39	wagon	28	rich	13
button	38	peas	28	money	11
wheat	38	cup	27	fork	10
apricot	37	mile	27		
box	36	pistol	27		

Among many other things, Brown observed the following tendencies:

(1) "Words for natural kinds tend more strongly than those for introduced artifacts to be associated with high borrowability." (p. 56)

(2) Within the category of words for introduced living things, terms for animals tend to show greater borrowability scores than words for plants.

Brown's (1999:66) explanation for the first tendency is that Native Americans encountered living things more often during interaction with Europeans, while artifacts were more often encountered in other contexts.

Brown's study seems to be the only systematic comparative study of loanwords so far in the literature. It is more limited than the Loanword Typology project in that it considers only 77 lexical meanings, but this allows him to take into account a very high number of languages.

4.2. Words of the LWT list in 19 languages

Semantic fields, ranked by percentage of borrowed words:

FIELDS	members	%filled	%borrowed
modern world	57	0.30	0.70
RELIGION AND BELIEFS	26	0.57	0.43
DWELLING/ HOUSE/ FURNITURE	47	0.58	0.42
CLOTHING/ PERSONAL ADORNMENT A	59	0.59	0.41
LAW	26	0.59	0.41
FOOD AND DRINK/ COOKING AND UT	81	0.61	0.39
AGRICULTURE/ VEGETATION	74	0.63	0.37
TERRITORIAL/ SOCIAL/ AND POLIT	36	0.65	0.35
WARFARE AND HUNTING	40	0.66	0.34
ANIMALS	116	0.66	0.34
MISCELLANEOUS PHYSICAL ACTS AN	78	0.70	0.30
POSSESSION/ PROPERTY/ AND COMM	46	0.70	0.30
MIND/ THOUGHT	51	0.72	0.28
VOCAL UTTERANCE/ SPEECH/ MUSIC	41	0.72	0.28
QUANTITY AND NUMBER	39	0.75	0.25
TIME	57	0.75	0.25
MOTION/ LOCOMOTION/ TRANSPORTA	82	0.75	0.25
TEMPERAMENTAL/ MORAL/ AND AEST	48	0.76	0.24
PHYSICAL WORLD IN ITS LARGER A	74	0.78	0.22
SPATIAL RELATIONS: PLACE/ FOR	75	0.80	0.20
PARTS OF THE BODY/ BODILY FUNC	158	0.85	0.15
MANKIND: SEX/ AGE/ FAMILY RELA	85	0.85	0.15
SENSE PERCEPTION	49	0.86	0.14
Function words	14	0.89	0.11

Lexical meanings, ranked by percentage of languages in which the word is borrowed ("the most stable words"):

1. to walk	19	0	0.00
2. you (singular)	19	0	0.00
3. yesterday	19	0	0.00
4. black	19	0	0.00
5. the back	19	0	0.00
6. the nose	19	0	0.00
7. the tongue	19	0	0.00
8. to kill	19	0	0.00
9. the rib	19	0	0.00
10. the eyelash	19	0	0.00
11. to go out	19	0	0.00
12. when?	19	0	0.00
13. long	19	0	0.00
14. the root	19	0	0.00
15. to hear	19	0	0.00
16. wide	19	0	0.00
17. to bring	18	0	0.00
18. I	18	0	0.00
19. to rise	18	0	0.00
20. today	18	0	0.00
21. the head louse	18	0	0.00
22. the bone	18	0	0.00
23. this	18	0	0.00
24. the foot	18	0	0.00
25. the toe	18	0	0.00
26. few	18	0	0.00
27. to fart	18	0	0.00
28. the day after tomorrow	18	0	0.00
29. to stand	18	0	0.00
30. stinking	18	0	0.00
31. to blow	18	0	0.00
32. to listen	18	0	0.00
33. sometimes	17	0	0.00
34. up	17	0	0.00
35. behind	17	0	0.00
36. bright	17	0	0.00
37. to borrow	17	0	0.00
38. the clay	17	0	0.00
39. that	17	0	0.00
40. the day before yesterday	17	0	0.00
41. the itch	17	0	0.00
42. to hollow out	17	0	0.00
43. he/she/it	16	0	0.00
44. to flow	16	0	0.00
45. raw	16	0	0.00
46. the nit	16	0	0.00
78. the woman	19	1	0.05
79. the house	19	1	0.05
80. to go	19	1	0.05
81. the bark	19	1	0.05
82. to carry	19	1	0.05
83. the fire	19	1	0.05
84. to speak or talk	19	1	0.05
85. you (plural)	19	1	0.05
86. to meet	19	1	0.05
87. the wood	19	1	0.05
88. the night	19	1	0.05
89. to come	19	1	0.05
90. to throw	19	1	0.05
91. the flea	19	1	0.05
92. to lie down	19	1	0.05
93. to follow	19	1	0.05
94. red	19	1	0.05
95. new	19	1	0.05
96. the fog	19	1	0.05
97. there	19	1	0.05
98. the flesh	19	1	0.05
99. the sun	19	1	0.05

100. the ear	19	1	0.05
101. the lip	19	1	0.05
102. the knee	19	1	0.05
103. the breast	19	1	0.05
104. the navel	19	1	0.05
105. the liver	19	1	0.05
106. to cough	19	1	0.05
107. to spit	19	1	0.05
108. to bite	19	1	0.05
109. to sleep	19	1	0.05
110. the thunder	19	1	0.05
111. to shiver	19	1	0.05
112. here	19	1	0.05
113. far	19	1	0.05

Lexical meanings, ranked by percentage of languages in which the word is borrowed ("the most borrowable words"):

1. the kangaroo	8	8	1.00
2. the coffee	18	17	0.94
3. the tea	16	15	0.94
4. the wine	15	14	0.93
5. the newspaper	12	11	0.92
6. the silk	12	11	0.92
7. the camel	12	11	0.92
8. the olive	11	10	0.91
9. the sugar	19	17	0.89
10. the soldier	17	15	0.88
11. the motor	16	14	0.88
12. the television	16	14	0.88
13. the priest	16	14	0.88
14. the pen	16	14	0.88
15. the train	15	13	0.87
16. the bomb	15	13	0.87
17. the bank(financial institution)	15	13	0.87
18. the boat	15	13	0.87
19. the calendar	14	12	0.86
20. the cart or wagon	14	12	0.86
21. the cheese	14	12	0.86
22. the pin	13	11	0.85
23. the post/mail	13	11	0.85
24. the soap	19	16	0.84
25. the hour	19	16	0.84
26. the bus	18	15	0.83
27. the book	18	15	0.83
28. the table	18	15	0.83
29. the rice	17	14	0.82
30. the radio	17	14	0.82
31. the sausage	11	9	0.82
32. the bicycle	16	13	0.81
33. the boomerang	5	4	0.80
34. the president	15	12	0.80
35. the screw	15	12	0.80
36. the plastic	15	12	0.80
37. the sock or stocking	19	15	0.79
38. the money	19	15	0.79
39. the clock	19	15	0.79
40. the postage stamp	14	11	0.79
41. the rug	9	7	0.78
42. the physician	18	14	0.78
43. the plate	18	14	0.78
44. the crime	13	10	0.77
45. the penalty or punishment	13	10	0.77
46. the boot	17	13	0.76
47. the telephone	17	13	0.76
48. the machine	17	13	0.76
49. the market	17	13	0.76
50. the towel	17	13	0.76
51. the beer	17	13	0.76
52. the larch	4	3	0.75

53. the toucan	8	6	0.75
54. the savanna	12	9	0.75
55. the mule	12	9	0.75
56. the bill	12	9	0.75
57. the citrus fruit	12	9	0.75
58. the letter	16	12	0.75
59. the pocket	16	12	0.75
60. the mattress	16	12	0.75
61. the film/movie	16	12	0.75
62. the car	19	14	0.74
63. the paper	19	14	0.74
64. the nail	19	14	0.74
65. the school	19	14	0.74
66. the election	15	11	0.73
67. the fine	15	11	0.73
68. the coat	15	11	0.73
69. the tax	15	11	0.73
70. the altar	11	8	0.73
71. the anchor	11	8	0.73
72. the candle	18	13	0.72
73. the window	18	13	0.72
74. the week	18	13	0.72
75. the hospital	18	13	0.72
76. the tin/can	18	13	0.72
77. the police	18	13	0.72

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