

Linguistics  
Entry ID: 9780199772810-0027  
Version Date: uploaddate  
Citation Style: Scientific

## **LOANWORDS**

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## **INTRODUCTION**

When two languages come into contact, words are borrowed from one language to another. Lexical borrowings, or loanwords, are by far the most commonly attested language contact phenomenon. Thomason and Kaufman 1988 (cited under \*Definition\*) states that "[i]nvariably, in a borrowing situation the first foreign elements to enter the borrowing language are words" and based on a cross-linguistic survey of lexical borrowings in 41 languages, Haspelmath and Tadmor 2009 (cited under \*Borrowability\*) states that "[n]o language in the sample—and probably no language in the world—is entirely devoid of loanwords." Loanwords are studied from many different perspectives, touching upon different subfields of linguistics, including phonetics, phonology, morphology, and semantics, as well as sociolinguistics and historical linguistics. Loanwords not only draw attention as the most common of language contact phenomena but also occupy an important position in general linguistics due to the evidence they bring to our understanding of the grammatical structure of language and to the theory of language change and historical linguistics. Some major questions that arise in the study of loanwords include: (i) definition—What are loanwords? How are loanwords different from or similar to codeswitches?: (ii) borrowability—Why are words borrowed? Are certain types of words more likely to be borrowed than others?: (iii) emergence and evolution—How are loanwords introduced? How do loanwords evolve over time?: (iv) adaptation—Why and how are loanwords adapted phonologically, morphologically, and semantically?: (v) lexical stratification—To what extent do loanwords adhere to the same types of restrictions as native words? What do loanwords tell us about the structure of the lexicon?: (vi) role of extralinguistic factors—How do extralinguistic

factors, such as orthography, socio-political context of borrowing, and language attitude affect loanwords?

## GENERAL OVERVIEWS

There is no textbook devoted solely to loanwords, but introductory books on language contact often provide substantial discussion of loanword phenomena. Matras 2009 examines the distribution of lexical borrowings across different lexical categories and the characteristics of structural adaptation. Winford 2003 discusses different social contexts under which lexical borrowing takes place and also provides detailed examples of structural adaptation that loanwords undergo. Thomason 2001 focuses on the interaction of social factors with borrowing of different linguistic structures. Bowden 2005 and Haugen et al. 1992/2003, are encyclopedia entries that provide a short and succinct overview of the topic. Clyne 1987 and Hoffer 1996 provide an overview of the field from a historical point of view. Haspelmath 2009 is an introductory chapter to a handbook of cross-linguistic comparative study of loanwords and provides an excellent introduction to key issues in the study of loanwords.

Bowden, John. "Lexical borrowing." In *Encyclopedia of Linguistics*. Edited by Philipp Strazny, Philipp. Accessed online through University of Toronto Library. New York: Taylor and Francis, 2005.

This short (995 words) encyclopedia entry provides an overview of topics covering various issues, including the motivation of lexical borrowing, the borrowability of different word types, and the adaptation of borrowed words.

Clyne, Michael G. "History of research on language contact." In *Sociolinguistics-Soziolinguistik*, vol. 1. Edited by H. von Ulrich Ammon, Norbert Dittmar, and Klaus J. Mattheier, 452-459. Berlin: Walter de Gruyter, 1987.

This article provides an overview of research on language contact prior to Weinreich 1953 and Haugen 1950, which he considers to be the beginning of American sociolinguistics. In the pre-1953 era, research on language contact played a vital role in the debate over the nature of language change in historical linguistics.

Haspelmath, Martin. "Lexical borrowing: Concepts and issues." In *Loanwords in the World's Languages: A Comparative Handbook*. Edited by M. Haspelmath and U. Tadmor, 35-54. Berlin: Mouton de Gruyter, 2009.

The article provides an overview of issues related to the definition and classification of loanwords as well as the motivation behind lexical borrowing.

Haugen, Einar, Marianne Mithun, and Ellen Broselow. "Borrowing." In *International Encyclopedia of Linguistics: e-reference edition*. Edited by William J. Frawley. Oxford University Press, 1992/2003.

The article consists of two parts: "Overview" and "Loanword phonology". "Overview" provides a historical overview and the context of the development of contact linguistics from the 19<sup>th</sup> century to the 1980s. "Loanword phonology" discusses the phonological transformation lexical borrowings undergo as they are integrated into the borrowing language.

Hoffer, Bates L. "Borrowing." In *Kontaktlinguistik/Contact Linguistics/Linguistique de contact*, vol. 2. Edited by Hans Goebel, Peter H. Nelde et al., 541-549. Berlin/New York: de Gruyter, 1996.

The article provides an overview of major works in contact linguistics in the 20<sup>th</sup> century. The author takes Haugen 1950's article on borrowing as "the beginning of the current interest in the topic", with much of the earlier work dealing mainly with the topic from the perspective of historical linguistics.

Matras, Yaron. *Language contact*. Cambridge, UK: Cambridge University Press, 2009.

An introductory textbook on language contact that examines multilingualism both at the individual level and the community level, it devotes a chapter to the discussion of lexical borrowing, touching upon borrowing and adaptation of nouns, verbs, and adjectives/adverbs, drawing upon examples from a wide range of languages.

Thomason, Sarah, G. *Language contact: an introduction*. Edinburgh: Edinburgh University Press, 2001.

The book provides a survey of a variety of language contact situations, taking into account the interaction of grammatical and social factors that give rise to a variety of linguistic outcomes, including introduction of new words, sounds, and grammatical structures, creation of new language, and attrition or loss of language.

Winford, Donald. *An introduction to contact linguistics*. Malden, MA: Blackwell, 2003.

Chapter 2 is devoted to the discussion of lexical borrowing. It provides discussion of different types of social contexts under which lexical borrowing takes place and also discusses the range of structural adaptations that borrowings undergo, drawing examples from a variety of language contact situations.

## DEFINITION

Loanwords are often referred to as "lexical borrowings" or simply "borrowings", although the term borrowing is also often used to refer to structural changes due to language contact that go beyond transmission of lexical items. The term "loanword" is itself a loan-translation of the German word *Lehnwort*. The terms "loanword" or "borrowing" are often criticized because they imply something is taken away from the source language and the borrower has to return the borrowed items. So, alternative terms like "transfer", "copying", and "replicating" are also proposed. But the term "borrowing" is established well enough not to cause misunderstanding due to its unfit metaphor and continues to be used widely. There are many proposals on the classification of loanwords and how to distinguish loanwords proper from other types of foreignisms based on various factors, including the degree of integration into native structure, the frequency of use in the speech community, and the sociolinguistic context of borrowing, among other things. Bloomfield 1933 classifies borrowings based on how direct the contact between the two language groups is and van Coetsem 1988 proposes a distinction based on whether the agent of transfer is the speakers of the recipient language or of the source language. Haugen 1950 and Haugen 1953 defined many terms such as *substitution*, *importation*, *loanblends*, and *loanshifts* and Haugen 1950 and Haugen 1953, along with Weinreich 1953, are considered seminal work on a systematic study of borrowing from a sociolinguistic perspective. As Weinreich 1953 points out, the range of phenomena that are classified as loanwords, or *interference* in Weinreich's term, varies depending on the perspective from which the phenomenon is studied. For those concerned with establishing a general theory of borrowability of lexical items, any word that has at some point in history been borrowed from one language to another falls under the purview of loanwords, while for those interested in the synchronic status of words in native speakers' grammar and lexicon, only relatively recent borrowings that native speakers recognize

as loanwords may be relevant. Also, some are interested in the final outcome of lexical borrowing and focus on established and integrated loanwords that are widely used by the community while others interested in the process by which foreign words become adapted and develop into established borrowings may include neologisms that are relatively less established.

Bloomfield, Leonard. *Language*. New York: Holt, Rinehart and Winston, 1933.

Bloomfield makes a distinction between *cultural borrowing* and *intimate borrowing*: cultural borrowing occurs between languages spoken in different geographical areas and can be bidirectional while intimate borrowing occurs when two languages are spoken in a single community due to migration or colonization and tends to be unidirectional.

Haugen, Einar. "The analysis of linguistic borrowing." *Language* 26 (1950): 210-331.

Haugen makes a distinction between *substitution*, where a foreign element is reproduced with a pattern from the speakers' native language, and *importation*, where a foreign element is produced without substantial modification. He also makes a distinction among *loanwords*, *loanblends* (hybrid of native and foreign morphemes), and *loanshifts* (semantic loans).

Haugen, Einar. *The Norwegian Language in America: A Study in Bilingual Behavior. Vol. 1: The bilingual community; Vol II. The American dialects of Norwegian*. Bloomington: Indiana University Press, 1953.

Along with Weinreich 1953, Haugen's work on the Norwegian language in America is considered to be a major turning point in the study of language contact, providing a comprehensive theory of language contact and taking into account social and psychological explanations for contact phenomena and their outcomes.

van Coetsem, Frans. *Loan phonology and the two transfer types in language contact*. Dordrecht: Foris, 1988.

The book proposes to make a distinction between two types of transfer phenomena, *borrowing* and *imposition*, based on the role of speakers. It is proposed that *borrowing* primarily affects less stable domains of a language, particularly vocabulary, while *imposition* affects more stable domains, particularly phonological entities.

Weinreich, Uriel. *Languages in Contact: Findings and Problems*. New York: Linguistics Circle of New York, 1953.

The book, along with Haugen 1950 and 1953, is considered to be the beginning of a systematic study of language contact combining linguistic analysis with sociolinguistic and psycholinguistic perspectives.

## **BORROWABILITY**

Many early studies on loanwords were concerned with borrowing phenomena in the context of historical-comparative linguistics and whether "mixed languages" are possible. The existence of loanwords and structural borrowing posed a serious challenge to the Comparative Method, which aims to identify the genetic relationship of languages by comparing shared vocabularies and grammatical characteristics, and efforts have been made to define the limits of borrowability—i.e. to identify the parts of the lexicon or grammar that are impervious to borrowing and hence can be safely used as diagnostics for genealogical classification of languages. Whitney 1911 is one of the earliest such attempts and Thomason and Kaufman 1988 is considered to be the first

systematic attempt to establish a comprehensive hierarchy of borrowability taking into account sociolinguistic context of borrowing. In the domain of lexical borrowings, two recurring observations are found; nouns are more likely to be borrowed than verbs or other classes of words and words denoting common vocabulary are less likely to be borrowed than cultural borrowings that denote new concepts or objects. Haspelmath and Tadmor 2009 is a large-scale typological study of lexical borrowings specifically intended to test various claims about lexical borrowability and to establish a list of "core" vocabulary that tends to resist borrowing. Woghelmuth 2009 is also a typological study, focusing on borrowing of verbs. Field 2002 and Matras and Sakel 2007 are also cross-linguistic typological studies on structural borrowing and propose some generalizations regarding borrowability of different lexical classes. There are also case studies that address the issue of lexical borrowability. Comrie 2000 demonstrates that common vocabulary can be borrowed due to language taboo and Scotton and Okeju 1973 argues that common vocabulary can also be borrowed under pervasive contact. van Hout and Muysken 1994 showed that the frequency of occurrences and the structural compatibility between the foreign item and the native structure also affect borrowability of words.

Comrie, Bernard. "Language contact, lexical borrowing, and semantic fields." In *Language in Contact: Studies in Slavic and General Linguistics*, vol. 28. Edited by D. G. Gilbers, J. Nerbonne, and J. Schaecken, 73-86. Amsterdam: Atlanta/Rodopi, 2000.

The article provides a counterexample to Greenberg's claim that borrowed lexical items are often limited to particular semantic domains. In Harui (Papua New Guinea), due to word taboo, many common words are replaced by borrowings from Kobon. As a result, Kobon loanwords in Harui are found across all semantic domains.

Field, Frederic W. *Linguistic borrowing in bilingual context*. Amsterdam/Philadelphia: John Benjamins, 2002.

This book proposes constraints on borrowing based on the morphological compatibility of donor items and recipient language structure and hierarchies of borrowability derived from the syntactic and semantic characteristics of word classes. The proposed constraints and hierarchies are applied to the analysis of Spanish borrowings in a corpus of Nahuatl text.

Haspelmath, Martin, and Uri Tadmor, eds. *Loanwords in the World's Languages: A Comparative Handbook*. Berlin: Mouton de Gruyter, 2009.

The book is a compilation of results of the cross-linguistic collaborative project on the typology of loanwords based on research on 41 languages, each carried out by an expert in the language. A companion database (\*World Loanword Database[<http://wold.livingsources.org>]\*) is also available online..

Matras, Yaron, and Jeanette Sakel, eds. *Grammatical borrowing in cross-linguistic perspective*. New York/Berlin: Mouton de Gruyter, 2007.

The volume presents a cross-linguistic typological study of structural borrowing under language contact and contains 27 case studies. The volume examines both structural and extralinguistic factors and how they impact contact-induced language change. While the main focus is on the structural changes, the volume also devotes subsections to lexical borrowings.

Scotton, Carol Myers, and John Okeju. "Neighbors and lexical borrowings." *Language* 49 (1973): 871-889.

The study is devoted to lexical borrowings in Ateso, an East African Nilotic language, and demonstrates that while lexical borrowings that represent new concepts or objects in the recipient language are indeed common, given sufficiently pervasive contact, core or common vocabulary can be borrowed as well.

Thomason, Sarah Grey, and Terrence Kaufman. *Language contact, creolization and genetic linguistics*. Berkeley: University of California Press, 1988.

The book discusses a wide variety of contact phenomena and proposes a widely cited implicational hierarchy of borrowings that attempts to relate the likelihood of structural borrowing to the intensity of contact to provide an empirical and theoretical framework for analyzing the outcomes of language contact.

van Hout, Roeland, and Peiter Muysken. "Modelling lexical borrowability." *Language Variation and Change* 6 (1994): 39-62.

The article presents a quantitative study of Spanish borrowings in Bolivian Quechua and examines how the borrowability of lexical categories may be affected by factors such as (i) whether the words are content words or not, (ii) the frequency of words in the donor language, (iii) syntagmatic and paradigmatic coherence of the category, and (iv) equivalence of word classes between languages.

Whitney, A. D. "On mixture in language." In *Whitney on Language. Selected writings of William Dwight Whitney*. Edited by M. Silverstein. Cambridge, MA: MIT Press, 1971

As a rebuttal to the claim that languages with mixed grammars could not exist, this paper argues that both lexical and grammatical transfer can occur in language contact. He goes on to discuss the need for a general scale of borrowability of different linguistic elements. Originally published in *Transactions of the American Philological Association for 1881*.

Wohlgemuth, Jan. *A typology of verbal borrowings*. Berlin: Mouton de Gruyter, 2009.

The book presents a cross-linguistic study of mechanisms involved in accommodating borrowed verbs based on a survey of 53 donor and recipient language pairs. Contrary to the commonly held assumption that verbs are never directly borrowed as such, *direct insertion*, whereby borrowed verb stems are used without any morphosyntactic adjustment was the most common strategy.

## **EMERGENCE**

It is a widely held assumption, often attributed to Poplack et al. 1988, that bilinguals are the conduit by which loanwords are introduced to language and that loanwords arise from codeswitches by bilinguals. But, others including Myers-Scotton 1993 have argued that not all loanwords arise through codeswitches by bilinguals, as is the case with cultural borrowing in distant contact situation. Friesner 2009 presents a quantitative study on the role of bilinguals in lexical borrowing. Also controversial is the relationship between borrowing and codeswitches. Myers-Scotton 1993 proposes that borrowings and codeswitches are cut from the same cloth and the distinction between the two is a matter of frequency of occurrences while Pfaff 1979 and most notably Poplack and Meechan 1998 propose that a clear distinction can be made between codeswitches and borrowings by examining their structural characteristics. Relatedly, Poplack

and Sankoff 1984 shows that the frequency of occurrences is positively correlated with the degree of structural integration.

Myers-Scotton, Carol. *Duelling languages: Grammatical structure in code-switching*. Oxford: Clarendon, 1993.

Chapter 6 discusses the relation between lexical borrowing and codeswitching. Myers-Scotton argues that *core borrowings* (as opposed to *cultural borrowings*) are introduced by single-word CS (codeswitches) and the two follow the same general principles and constraints. The distinction between the two is a matter of frequency of occurrences.

Friesner, Michael L. "The social and linguistic predictors of the outcomes of borrowing in the speech community of Montreal." PhD dissertation, University of Pennsylvania, 2009.

The study examines the role of bilinguals and monolinguals in importation of foreign structure and the phonetic and phonological adaptation of loanwords based on data gathered from sociolinguistic interviews of French and Spanish speakers in Montreal.

Pfaff, Carol. "Constraint on language-mixing." *Language* 55 (1979): 291-318.

The article presents a corpus-based study of codeswitching of English and Spanish in the speech of Mexican-Americans and proposes that a proper distinction between borrowing and codeswitching can be made by taking into account the particular item's status in the lexical inventories of the speech community and the functional load of morphological marking.

Poplack, Shana, and Marjory Meechan, eds. *Instant loans, easy conditions: the productivity of bilingual borrowing. Special Issue, International Journal of Bilingualism* 2(1998): 127-234.

The collection of articles in this volume examines the status of lone other-language items in a variety of language contact situations using the variationist comparative method and concludes that the majority of lone other-language items should be classified as loanwords as they pattern similarly to native words or established loanwords.

Poplack, Shana, and David Sankoff. "Borrowing: The synchrony of integration." *Linguistics* 22 (1984): 99-135.

Based on a set of lexical data elicited from Puerto Rican children and adults in New York, the study shows that the degree of phonological integration of loanwords is positively correlated with their frequency of use.

Poplack, Shana, David Sankoff, and Chris Miller. "The social correlates and linguistic processes of lexical borrowing and assimilation." *Linguistics* 26 (1988): 47-104.

The study is a detailed sociolinguistic study of English loanword usage in naturalistic conversation in a number of Canadian French communities. The rate and the pattern of loanword usage are conditioned by various social factors, including sex and age. The study is also often cited for the claim that "highly bilingual speakers are importers of lexical innovations. (p.85)"

## EVOLUTION

Studies also examined how loanwords evolve and undergo further changes over time after they enter a language. Chesley and Baayen 2010 examined why some loanwords become widely used established loanwords while others fall out of use based on the statistical distribution of

word's usage. Crawford 2009 and Davidson 2007 propose that foreign words, after introduced by an initial borrower, undergo further modifications as they are propagated through the rest of the speech community. Heffernan 2007 proposed that the same word borrowed from the same source language may take on different phonological patterns at different time periods depending on the nature of the contact situation of the time. Kang et al. 2008 examines loanwords that are borrowed through an intermediary language and how loanwords may undergo modifications as the influence of the intermediary language changes over time.

Chesley, Paula, and R. Harald Baayen. "Predicting new words from newer words: Lexical borrowings in French." *Linguistics* 48 (2010): 1343-1374.

The study examines factors that affect the likelihood of entrenchment of lexical borrowings by examining the distribution of new borrowings in a French newspaper corpus and comparing their frequency in 10 years. Dispersion is found to be a more important factor than frequency and words are penalized for their "burstiness".

Crawford, Clifford J. "Adaptation and transmission in Japanese loanword phonology." Ph.D. diss., Cornell University, 2009.

The study examines the diachronic development of palatalization (ti → chi) in English loanwords in Japanese and proposes that loanword adaptation may take place at two different points, at the initial adaptation of a new loanword by a borrower and at the transmission of loanwords from speaker to speaker within a community.

Davidson, Lisa. "The relationship between the perception of non-native phonotactics and loanword adaptation." *Phonology* 24 (2007): 261–286.

The study examines how foreign words produced by non-bilingual borrowers are perceived by monolingual speakers and suggests that the adaptation of loanwords may undergo a similar process: i.e. a small number of monolinguals' or imperfect bilinguals' production of foreign words undergo further modification via perceptual distortion during dissemination through the rest of the linguistic community.

Heffernan, Kevin. "The role of phonemic contrast in the formation of Sino-Japanese." *Journal of East Asian Linguistics* 16 (2007): 61–86.

The study examines Chinese loanwords in Japanese in different historical periods, of more intense contact and less intense contact, and proposes that marked structural contrast of the foreign language is more likely to be imported when the contact is more intense.

Kang, Yoonjung, Michael Kenstowicz, and Chiyuki Ito. "Hybrid loans: a study of English loanwords transmitted to Korean via Japanese." *Journal of East Asian Linguistics* 17 (2008): 299–316.

The article examines the phonological characteristics of "hybrid" loans, English loanwords borrowed through Japanese to Korean that are subsequently modified to reflect the pattern of direct borrowing of English loanwords to Korean.

## **PHONOLOGICAL ADAPTATION**

As foreign words enter a language, they usually undergo various modifications in sound structure to conform to the native sound pattern. Phonological adaptation of loanwords has drawn attention not only from those who are interested in language contact phenomena but also from theoretical



phonologists due to the potential evidence the phenomenon can provide for the psycholinguistic validity of aspects of the recipient grammar.

### *MAJOR ISSUE*

One of the central issues on the topic has been the nature of representation that mediates the adaptation; i.e. whether the comparison between the foreign input and the recipient language output takes place at the level of abstract phonological representation or at the surface phonetic/acoustic representation. Hyman 1970 notably made a claim that loanwords provide evidence for abstract underlying representation and sparked a debate on abstractness of phonological representation. Silverman 1992 is one of the first studies to formulate how perception plays a role in loanword adaptation in a generative framework. Paradis and LaCharité 1997 and LaCharité and Paradis 2005 claim that loanword adaptation is mediated by abstract phonological representation while Kenstowicz 2007, Peperkamp et al. 2008, and Boersma and Hamann 2009 emphasize the primacy of perceptual factors in loanword adaptation and yet others, such as Yip 2006 emphasize the interplay of both factors.

**[au: Please remove citations from this section, or divide into sub-sections, so that there are no more than 8 citations in each section and sub-section.]**

Boersma, Paul & Silke Hamann. 2009. Loanword adaptation as first-language phonological perception. In Calabrese & Wetzels (2009), 11–58.

The study proposes an L1 perception-based of loanword adaptation whereby sound adaptation in loanwords is a result of L1 speech perception applied to the foreign acoustic input.

Hyman, Larry M. "The role of borrowing in the justification of phonological grammars." *Studies in African Linguistics* 1 (1970): 1–48.

The study proposes that "a foreign word is perceived in terms of underlying forms [of the recipient language] and, as such, is subject to the phonological constraints of the system. (p.24)" based on Yoruba loanwords in Nupe.

Kenstowicz, Michael J. "Salience and similarity in loanword adaptation: a case study from Fijian." *Language Sciences* 29 (2007): 316–340.

This article presents a detailed analysis of loanword adaptation in Fijian, focusing on how the perceptual salience and phonetic similarity of sounds can account for adaptation processes.

LaCharité, Darlene, and Carole Paradis. "Category preservation and proximity versus phonetic approximation in loanword adaptation." *Linguistic Inquiry* 36 (2005): 223–258.

Based on a study of a cross-linguistic corpus of loanwords, the article argues that loanword adaptation is overwhelmingly phonological and that phonetic approximation adaptation is vanishingly rare.

Paradis, Carole, and Darlene LaCharité. "Preservation and minimality in loanword adaptation." *Journal of Linguistics* 33 (1997): 379–430.

This article presents a very explicit model of loanword adaptation whereby the phonological structure of the input language is minimally modified to conform to the borrowing language's structural requirements. In particular, it is proposed that adaptation is carried out by bilinguals who have the knowledge of both languages' phonology.

Peperkamp, Sharon, Inga Vendelin, and Kimihiro Nakamura. "On the perceptual origin of loanword adaptations: Experimental evidence from Japanese." *Phonology* 25 (2008): 129–164.

This is an experimental study to test the perceptual vs. phonological account of loanword adaptation.

Silverman, Daniel. "Multiple scansions in loanword phonology: evidence from Cantonese." *Phonology* 9 (1992): 289-328.

This study provides an analysis of English loanwords in Cantonese. It is proposed that adaptation takes place in two steps; first a perceptual scansion maps the input to a sequence of phonemes of native language and the output of this first process undergoes further phonological modifications.

Yip, Moira. "The symbiosis between perception and grammar in loanword phonology." *Lingua* 116 (2006): 950–975.

Based on data of loanword adaptation in Cantonese, the paper proposes that a purely perceptual or purely grammatical model of loanword adaptation is not adequate.

Grammar includes constraints specific to mimicking foreign language input but where there is indeterminacy, grammar intervenes and prioritizes.

#### *COLLECTED VOLUMES and OVERVIEWS*

Phonological adaptation has been examined in all aspects of phonological structure, including segmental substitution, epenthesis or deletion due to syllable structure and phonotactic restrictions, and suprasegmental adaptation of stress, pitch accent, or tones. Recently, several collections of studies on loanword phonology have been published such as Calabrese and Wetzels 2009, Kang and Rice 2008, and Kenstowicz and Uffman 2006. Kang 2011a and Kang 2011b provides a recent overview on loanword phonology.

Calabrese, Andrea, and W. Leo Wetzels, eds. *Loan phonology*. Amsterdam & Philadelphia: John Benjamins, 2009.

This volume brings together articles by a number of leading researchers on the topic of loanword phonology, covering diverse languages and viewpoints (phonologically-based vs. phonetically-based).

Kang, Yoonjung. "Tutorial overview: suprasegmental adaptation in loanwords." *Lingua* 120 (2011a): 2295-2310.

A review of studies on suprasegmental adaptation in loanwords, this article provides an overview of studies on how suprasegmental properties, such as stress, tone, and pitch accent, are adapted in loanwords and discusses the implications of the emerging generalizations.

Kang, Yoonjung. "Loanword phonology." In *Companion to Phonology*. Edited by Marc van Oostendorp, Colin Ewen, Elizabeth Hume, and Keren Rice, 2258-2282. Wiley-Blackwell, 2011b.

A review of studies on loanword phonology, this article presents major research questions that guide the research on loanword phonology and how competing viewpoints and theories address or fail to address these challenges.

Kang, Yoonjung, and Keren Rice, eds. *Journal of East Asian Linguistics, a special issue on the loanword phonology of East Asian languages* 17(2008).

This issue is a collection of articles on the loanword phonology of East Asian languages, covering Japanese, Korean, Tibetan, Mandarin, and Cantonese.

Kenstowicz, Michael, and Christian Uffmann, eds. *Special issue on Loanword Phonology: current issues. Lingua* 116 (2006): 921-1194.

This issue is a collection of articles on the study of loanword phonology and covers a wide range of languages (Thai, Cantonese, Russian, French, Korean, Hawaiian, Japanese, Sesotho, and Norwegian), phonological phenomena (segmental and suprasegmental), and factors affecting the outcome of adaptation (phonological, phonetic, and orthographic).

### *DISSERTATIONS*

A number of Ph.D. dissertations are devoted to an in-depth analysis of phonological adaptation in particular languages. Lovins 1975, Shinohara 1997, and Katayama 1998 are studies on Western loanwords in Japanese. D. Lee 2009 and A. Lee 2009 are studies on English loanwords in Korean. Mahonen 2011 is a study on loanwords in Finnish. Owino 2003 is on English and Swahili loanwords in Dholuo.

Katayama, Motoko. *Optimality Theory and Japanese loanword phonology*. Ph.D. diss., University of California, Santa Cruz. 1998.

This dissertation examines various aspects of phonology of English loanwords in Japanese. The phonological phenomena examined include the pitch accent assignment, the realization of English /r/, the realization the English plural morpheme, and English compound abbreviation.

Lovins, Julie Beth. *Loanwords and the phonological structure of Japanese*. Bloomington: Indiana University Linguistics Club, 1975.

This dissertation is one of the earliest in-depth studies on phonological adaptation of loanwords in a generative framework. The book provides a thorough description of various phonological processes and also provides an insightful discussion of the implications of loanwords on the native phonological structure, covering various topics related to stratification of the lexicon.

Lee, Dongmyung. *The loanword tonology of South Kyungsang Korean*. Ph.D. diss., Indiana University, 2009.

This dissertation examines the accentuation in English and Japanese loanwords in South Kyungsang Korean and finds that while native accent assignment is lexical and largely unpredictable, the accentuation of loanwords follow a systematic pattern.

Miao, Ruiqin. "Loanword adaptation in Mandarin Chinese: perceptual, phonological and sociolinguistic factors." Ph.D. diss., Stony Brook University, 2005.

This is a Ph.D. thesis that examines English, Italian, and German loanwords in Mandarin and proposes that perceived similarity of native and foreign sounds plays a primary role in loanword adaptation modulated by sociolinguistic factors.

Mahonen, Kirsta Elisabeth. *The productivity of Finnish vowel harmony: an analysis of disharmonic words*. 2011. Ph.D. diss., State University of New York at Buffalo, 2005.

The dissertation examines the productivity of suffix vowel harmony in disharmonic loanwords—where front and back vowel co-occur within a root violating general harmony pattern—and finds that the harmony pattern is undergoing change between younger and older generations of Finnish speakers.

Owino, D., 2003. Phonological nativization of Dholuo loanwords. Ph.D. Dissertation, University of Pretoria.

This Ph.D. thesis examines English and Swahili loanwords in Dholuo and the topics covered range from segmental and syllable structure adaptation to tonal assignment and vowel harmony.

Shinohara, Shigeko. *Analyse phonologique de l'adaptation japonaise de mots étrangers*. Thèse de doctorat, Université Paris III. 1997.

This Ph.D. thesis examines English and French loanwords in Japanese. Specifically, segmental adaptation, phonotactic adaptation, and pitch accent assignment are examined.

## MORPHOLOGICAL ADAPTATION

In many languages, grammatical gender or noun class assignment in loanwords is governed by a combination of semantic, morphological, and phonological factors—such as biological sex of the referent, analogy to host language semantic equivalent, phonological shape of the word, and analogy to host language suffix, as discussed in Ibrahim 1973, Corbett 1991 and Thornton 2001. The general consensus emerging from these studies is that biological sex of the referent, if available, tends to dominate other factors. Many studies examined gender assignment in loanwords to test the validity of specific rules or tendencies that are purported to govern gender assignment in native words. As gender assignment is often subject to variation affected by a number of factors, a quantitative study is necessary to verify the effects of various factors governing gender assignment and for this reason, sociolinguistic methods are commonly employed in the study of gender assignment as in Barkin 1980 and Poplack et al. 1982. While gender assignment in loanwords generally replicates or reflects the native system, it may copy the gender of the word in the source language, as shown by Stolz 2009 and it may also employ special strategies, such as preference for a "default gender", whereby a particular gender (e.g. a masculine gender in a two-gender system) is overrepresented compared to the native lexicon as shown by Kilarski 2003, or loanwords are assigned to a special uninflected gender/noun class. Other studies show that morphological constraints motivate seemingly puzzling phonological changes: for example Repetti 2006 discusses consonant gemination and stress shift in Italian. **[au: Please remove citations from this section, or divide into sub-sections, so that there are no more than 8 citations in each section and sub-section.]**

Barkin, Florence. "The role of loanword assimilation in gender assignment." *Bilingual review/Revista bilingue* 7 (1980): 105-112.

This study examines gender assignment in English loanwords in Spanish based on the speech of Mexican-American migrant workers through sociolinguistic interviews. The study finds that the rate at which the English words are inflected for gender is negatively correlated with the speakers' degree of English use and positively correlated with the degree of phonological integration.

Corbett, Greville. *Gender*. Cambridge: Cambridge University Press, 1991.

A thorough and comprehensive study of grammatical gender in language, the book devotes a section to the discussion of gender assignment in borrowings and how it can provide evidence for the psycholinguistic status of gender assignment rules in the native language. The section draws upon a rich array of examples and provides a thorough review of the topic.

Ibrahim, Muhammad Hassan. *Grammatical gender: Its origin and development*. The Hague: Mouton, 1973.

Chapter 5 provides a discussion on factors affecting gender assignment in borrowed words, drawing data from previous studies on various loanword situations.

Kilarski, Marcin. "Gender assignment in Danish, Swedish and Norwegian: a comparison of the status of assignment criteria." *Nordlyd* 31.2 (2003): 261-274.

This study examines gender assignment in English loanwords in Danish, Swedish, and Norwegian based on a corpus of loanwords gathered from dictionaries and finds a default gender effect. The study shows that the common gender in Danish and Swedish (a two-gender system of common and neuter) and masculine gender in Norwegian (a three-gender system of masculine, feminine, and neuter) are overrepresented in comparison to the native nouns.

Poplack, Shana, Alicia Pousada, and David Sankoff. "Competing influences on gender assignment: variable process, stable outcome." *Lingua* 57 (1982): 1-28.

This study examines gender assignment in English borrowing in Puerto Rican Spanish spoken in New York and Montreal French. Various factors, proposed in previous studies on gender assignment in loanwords—sex of the referent, phonological shape of the word, analogy to host language semantic equivalent, analogy to host language suffix, unmarked gender, etc.—are subjected to the test of variable rules analysis.

Repetti, Lori. "The emergence of marked structures in the integration of loans in Italian." In *Historical Romance Linguistics: Retrospective and Perspectives*. Edited by Randall S. Gess and Deborah Arteaga, 209-239. Amsterdam and Philadelphia: John Benjamins, 2006.

This study examines the morpho-phonological integration of nouns in loanwords in Standard Italian, American Italian, and Pre-Modern Italian and proposes that seemingly puzzling process of consonant gemination and stress shift is motivated by morphophonological constraints of Italian noun classes.

Stolz, Christel. "Loan word gender in Maltese, with a special focus on Gender Copy." In *Introducing Maltese linguistics. Proceedings of the first international conference on Maltese linguistics*. Edited by Bernard Comrie, Ray Fabri, Elizabeth Hume, Manwel Mifsud, Thomas Stolz and Martine Vanhove, 321-353. Amsterdam/Philadelphia: John Benjamins, 2009.

This study finds that in Maltese, Gender Copy—inheriting the gender of the word in the source language—is the most prevalent strategy for Romance words, but for English words, for which no source language gender is available, other formal and semantic criteria prevail.

Thornton, Anna. "Some Reflections on Gender and Inflectional Class Assignment in Italian" In *Naturally! Linguistic Studies in Honour of Wolfgang Ulrich Dressler Presented on the Occasion of his 60th Birthday*. Edited by Chris Schaner-Wolles, John Rennison, and Friedrich Neubarth, 479-487. Torino: Rosenberg & Sellier, 2001.

The study investigates the relationship between gender and inflectional class of nouns by examining how new nouns created by truncation, clipping, nominalization, and borrowing are assigned gender and inflectional class.

## LEXICAL STRATIFICATION

Loanwords usually undergo adaptation to conform to the structural tendencies of the recipient language but just as often, we find loanwords resisting the pressure to conform and retain structural patterns that are not found in native words raising the question of why certain aspects of native constraints are readily adapted while others are not and how such different modes of borrowing (i.e. adaptation vs. importation) may arise. Holden 1976 explores differential adaptations in Russian and Broselow 2004 provides an overview of emergent hierarchies in loanwords and suggests perceptual accounts. As a consequence of such differential adaptation, in a synchronic lexicon, loanwords are distinguished from native words in their phonological shapes or morphophonological patternings. This led many, such as Aronoff 1976, Itô and Mester 1995, and Kawahara et al. 2003, to propose a model of the lexicon where words of different etymological origins occupy different strata. Moreton and Adamo 1999 and Gelbert 2005 experimentally tested the psychological validity of such distinction in speakers' grammar by examining the effect of stratal differences on speech perception and Pater 2005 is concerned with the question of how such a stratified lexicon may be learned by children.

Aronoff, Mark. *Word formation in Generative grammar*. Cambridge, MA: MIT Press, 1976.

The book observes that English morphemes are divided into two distinct parts, native and latinate, and they pattern differently in morphology and phonology.

Broselow, Ellen. "Language contact phonology: Richness of the stimulus, poverty of the base." In *Proceedings of NELS 34*. Edited by K. Moulton and M. Wolf, 1-21. Amherst, MA: GLSA, 2004.

This article addresses the puzzle of emergent patterns in language contact, i.e., how certain phonological patterns may emerge in language contact, even though they are apparently not learnable from the native language input data.

Holden, Kyril. "Assimilation rates of borrowings and phonological productivity." *Language* 52 (1976): 131-147.

Based on data from Russian, the study demonstrates that different phonological features affect borrowings differently.

Itô, Junko, and Armin Mester. "The core-periphery structure of the lexicon and constraints on reranking." In *University of Massachusetts occasional papers in linguistics 18*. Edited by Jill Beckman, Suzanne Urbanczyk, and Laura Walsh, 181-209. Amherst: GLSA, University of Massachusetts, 1995.

This and other related articles by Itô and Mester propose that the Japanese lexicon is stratified into core-periphery structure: the native Yamato vocabulary occupies the core and all native phonological restrictions are upheld and Sino or English loanwords occupy the periphery where a subset of the native phonological restrictions is violated.

Gelbart, Ben. *Perception of foreignness*. Amherst: GLSA, University of Massachusetts, 2005.

The thesis examines the psychological reality of lexical stratification in speakers' grammar by experimentally probing the validity of structural cues for lexical strata and how speakers' perception pattern may show sensitivity to words' memberships to different lexical strata as indicated by structural characteristics.

Kawahara, Shigeto, Nishimura Kohei, and Hajime Ono. "Sino-Japanese as the most unmarked stratum in Japanese." *Japanese/Korean linguistics* 12 (2003): 140–151.

The study argues against the hierarchical model of lexical stratification proposed by Itô and Mester. Instead, Kawahara et al. demonstrate that there are ways native words may be more constrained than loanwords and propose that different strata of the lexicon may satisfy overlapping but different sets of markedness constraints without having a hierarchical structure.

Moreton, Elliott and Shigeaki Amano. "Phonotactics in the perception of Japanese vowel length: Evidence for long-distance dependencies." *Proceedings of the 6th European Conference on Speech Communication and Technology*, Budapest, 1999.

This is an experimental study that shows how phonotactic differences between lexical strata in Japanese can affect speech perception.

Pater, Joe. "Learning a stratified grammar." In *Proceedings of the 29th Boston University Conference on Language Development*. Edited by Alejna Brugos, Manuella R. Clark-Cotton, and Seungwan Ha, 482-492. Somerville, MA: Cascadilla Press, 2005.

The article proposes an algorithm of how learners acquire stratified grammars. It is proposed that learners are initially conservative, positing word-specific constraints for occurrences of marked structures, which are collapsed to refer to a class of words, when multiple words of the type are encountered, leading to the acquisition of lexically stratified grammar.

## CASE STUDIES

There are numerous books and articles that deal with loanwords in particular languages or language groups, either providing a general overview or focusing on a particular aspect of adaptation and what is presented here is only an extremely small sample of the body of work. The following list is limited to a small selection of book-length works only. The list is divided into monographs and article collections.

### MONOGRAPHS

Cain 1986 is a compilation of loanwords in Samoan and Kossman 2005 is a study of Berber loans in Hausa. Bond 1974 and Gardiner 1965 are studies on German loanwords in historical periods of Russian and Dankoff 1995 is a compilation of Armenian loanwords in Turkish. Corriente is a dictionary of Andalusian Arabic loanwords in Iberian languages. Danesi 1985 is a study of English loanwords in Italian spoken in Toronto couched in current phonological theories. Loveday 1996 is on English loanwords in Japanese focusing on sociolinguistic aspects of loanwords.

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Bond, Anatole. *German Loanwords in the Russian language of the Petrine period*. Bern: Herbert Lang, 1974.

The book documents German loanwords introduced to Russian during the reign of Peter I. (1682-1725). Along with the list of loanwords grouped into semantic subdomains, a discussion about the pattern of phonological and morphological adaptation is provided.

Cain, Horst. *A lexicon of foreign loan-words in the Samoan language*. Cologne: Böhlau Verlag, 1986.

This is a book-length list of loanwords in Samoan. It divides the loanwords into different semantic subdomains and provides the origin of each word.

Corriente, Federico. *Dictionary of Arabic and Allied loanwords: Spanish, Portuguese, Catalan, Galician and Kindred Dialects (Handbook of Oriental Studies/ Handbuch der Orientalistik, Section 1: The Near and Middle East 97)*. Brill, Leiden 2008.

The book is a dictionary of Arabic loanwords in Ibero-Romance languages with an introductory essay that presents the phonological, morphological, and syntactic patterns of adaptation of Andalusian Arabic to Iberian languages.

Dankoff, Robert. *Armenian Loanwords in Turkish*. Wiesbaden: Harrassowitz, 1995.

This is a book-length list of Armenian loanwords in Turkish with a brief discussion about the phonological inventories of the language and the attested substitution patterns.

Danesi, Marcel. *Loanwords and phonological methodology*. Ville LaSalle (Québec): Didier, 1985.

The book provides a detailed phonological analysis, couched in current phonological theories, of English loanwords in Italian spoken in Toronto based on data gathered in fieldwork. The appendix provides the full list of data.

Gardin, S. C. *German loanwords in Russian, 1550-1690*. Oxford: Published for the Society by B. Blackwell, 1965.

The book catalogs and dates German loanwords introduced to Russian during 1550-1690 based on a large number of primary text sources and provides a linguistic analysis of phonetic, morphological, and semantic adaptation.

Kossmann, Maarten G. *Berber loanwords in Hausa*. Köln: Köppe, 2005.

The book documents the lexical influence of Berber on Hausa and provides a detailed analysis of the phonological and morphological integration of Berber loanwords into Hausa structure.

Loveday, Leo J. *Language Contact in Japan*. New York: Oxford Press, 1996.

The book provides a comprehensive discussion of lexical borrowings and related language contact phenomena from Asian and European languages, combining linguistic description and analysis with a sociolinguistic perspective.

#### *COLLECTED VOLUMES*

Filipović 1982 and Geraghty and Tent 2004 are collections of articles focusing on particular language areas, European languages and Pacific languages, respectively. Rodríguez González 1996 is a collection of articles on Spanish borrowings in dialects of English.

Filipović, Rudolf, ed. *The English element in European languages: vol. 2*. Zagreb: Institute of Linguistics, University of Zagreb, 1982.



The book is a collection of articles that describe phonological, morphological, and semantic characteristics of English loanwords in 15 European languages.

Geraghty, Paul, and Jan Tent, eds. *Borrowing: A Pacific perspective*. Canberra: Australian National University, 2004.

The book is a collection of articles on lexical borrowings in the Pacific, focusing on Polynesia, Fiji, and eastern Melanesia.

Rodríguez González, Félix, ed. *Spanish loanwords in the English language: a tendency towards hegemony reversal*. Berlin: Mouton de Gruyter. 1996.

The book is a collection of articles on Spanish loanwords in the English language from as early as the 13<sup>th</sup> century to more recent years. The articles examine specific usages of Spanish loanwords—in press, general slang, place names, literary works among other—and in various English-speaking regions.