OXFORD BIBLIOGRAPHIES ONLINE

HERITAGE LANGUAGES

Maria Polinsky

Harvard University

TABLE OF CONTENTS

- 1. Introduction
 - 1.1. Definition of heritage languages/speakers
 - 1.2. Related concepts and phenomena
 - 1.3. Related reference entries
- 2. General overviews
- 3. Studies of heritage language phonology and phonetics
 - 3.1. Perception
 - 3.2. Production
- 4. Studies of morphosyntax in heritage languages
 - 4.1. Morphology
 - 4.1.1. Agreement and concord
 - 4.1.2. Aspect
 - 4.1.3. Tense and mood
 - 4.1.4. Case marking
 - 4.2. Syntax
- 5. Studies of semantics and pragmatics in heritage languages
 - 5.1. Lexical knowledge
 - 5.2. Semantics
 - 5.3. Discourse
- 6. Studies of individual heritage languages
- 7. Journals publishing on heritage languages

1 Introduction

Heritage languages are spoken by early bilinguals, simultaneous or sequential, whose L1 (home language) is severely restricted because of insufficient input. As a result, they can understand the home language and may speak it to some degree but feel more at ease in the dominant language of their society.

1.1 Definition of heritage languages/speakers

Valdés, Guadalupe. 2000. Introduction. *Spanish for Native Speakers, Volume I.* AATSP Professional Development Series Handbook for teachers K-16. New York, NY: Harcourt College.

Provides a narrow definition of a heritage speaker emphasizing the developmental trajectory and linguistic abilities of this population.

Fishman, Joshua. 2001. 300-plus years of heritage language education in the United States. In Joy K. Peyton et al. (eds). *Heritage Languages in America: Preserving a National Resource*. McHenry, IL and Washington D.C, Delta Systems and Center for Applied Linguistics, 87-97.

A broader definition, which identifies heritage speakers by their cultural and ancestral association with a given language, and does not presuppose bilingualism.

Cummins, J. 2005. A proposal for action: Strategies for recognizing heritage language competence as a learning resource within the mainstream classroom. *The Modern Language Journal* 89, 585-592.

Introduces the term 'heritage speaker' as applied to the Canadian bilingual situations.

1.2 Related concepts and phenomena

Semi-speakers show many of the features attributed to heritage speakers. Because heritage languages are often characterized by some incompleteness or reduction of the linguistic system, they have been described as incompletely acquired or subject to attrition. A number of bibliographic references reflect this terminology. The term "near-

native" has also been used; it needs to be used with caution because sometimes it refers to second language learners who show near-native attainment.

Dorian, Nancy. 1973. Grammatical change in a dying dialect. *Language* 49, 413-438. An overview of language change under attrition in East Sutherland Gaelic.

Dorian, Nancy. 1978. East Sutherland Gaelic: The Dialect of the Brora, Golspie, and Embo Fishing Communities. Dublin: Dublin Institute for Advanced Studies.A detailed study of East Sutherland Gaelic.

Dorian, Nancy. 1981. Language Death: The Life Cycle of a Scottish Gaelic Dialect. Philadelphia: University of Pennsylvania Press.

An important monograph introducing structural correlates of heritage languages.

1.3 Related reference entries

This bibliography mainly presents studies on structural and psycholinguistic aspects of heritage language study. For other issues related to heritage languages, see the more general bibliography on *code-switching*, *language identities*, and *language teaching*.

2 General overviews

There is no single textbook or survey book focusing specifically on heritage speakers, because the field of inquiry is relatively new and has not yet completely separated from structural or social investigations of bilingualism. The following overviews provide a helpful discussion of the range of issues involved in heritage language study.

Benmamoun, E., Montrul, S., & M. Polinsky. 2010. Prolegomena to Heritage Linguistics. White paper, online, Harvard University.

http://scholar.harvard.edu/mpolinsky/publications/white-paper-prolegomena-heritagelinguistics

A discussion of the range of issues involved in heritage language study, from linguistics to language pedagogy.

Brinton, D., O. Kagan & S. Bauckus (eds.). 2008. *Heritage language education. A new field emerging*. New York: Routledge.

A collection of articles presenting a multidisciplinary perspective on the acquisition, structure, and teaching of heritage languages.

Cook, V. 2003. *The effects of the second language on the first.* Clevedon, UK: Multilingual Matters.

Discussion of variance among bilinguals which addresses structural effects of second language as seen in an individual's first language.

Köpke, B., M. Schmid, M. Keijzer, & S. Dosterst (eds.). 2007. *Language attrition: Theoretical perspectives*. Amsterdam: John Benjamins.

Discussion of extralinguistic and linguistic factors leading to L1 restructuring in adulthood; continues a number of themes raised by Dorian.

Montrul, S. 2008. *Incomplete Acquisition in Bilingualism. Re-examining the Age Factor*. Amsterdam: John Benjamins.

An investigation into the relationships between attrition, incomplete acquisition and fossilization in first language (L1) and second language (L2). These issues are discussed with regard to age of acquisition and critical period theories.

Polinsky, M. & O. Kagan. 2007. Heritage languages: In the 'wild' and in the classroom. Language and Linguistics Compass 1/5, 368-95.

An overview of heritage speakers (narrowly defined) from the standpoint of their linguistic characteristics and re-learning potential in adulthood.

Seliger, R., & R. Vago (eds.). 1991. *First language attrition*. Cambridge: Cambridge University Press.

A collective monograph discussing sociolinguistic and structural issues pertaining to language attrition. A collection of case studies on a number of languages.

Schmid, M., B. Köpcke, M. Keijzer, and L. Weilemar (eds.). 2004. *First language attrition: Interdisciplinary perspectives on methodological issues*. Amsterdam: John Benjamins.

This volume contains a useful annotated bibliography on language attrition (through 2004) which is relevant for heritage language study as well.

Schmid, M. (ed.). 2010. New perspectives on L1 attrition. Bilingualism: Language and Cognition 13, 1 (Special issue on language attrition).

A collection of articles documenting case studies of several heritage languages and examining the methodology of heritage language research.

3 Studies of heritage language phonology and phonetics

3.1 Perception

Studies of speech language perception show that heritage speakers generally have a good control of phonemic contrasts in their home language even if their exposure to that language was limited to the first five years of life.

Au, T., L. Knightly, S. Jun, and J. Oh. 2002. Overhearing a language during childhood. *Psychological Science* 13, 238–243.

Even passive exposure to a language in childhood results in tangible phonetic and phonological benefits as an adult heritage speaker takes on the relearning if their heritage language.

Knightly, L., S. Jun, J. Oh, and T. Au. 2003. Production benefits of childhood overhearing. *Journal of the Acoustic Society of America* 114, 465–474.
Exposure to a language in childhood leads to phonetic production benefits in adulthood even it the language has not been used.

Oh, J., S. Jun, L. Knightly, and T. Au. 2003. Holding on to childhood language memory. *Cognition* 86, B53-B64.

Early acquisition of a language in the home leads to advantages in both perception and production of phonological contrasts in that language when the language is accessed after a long period of non-use.

Tees, R. C., & Werker, J. F. (1984). Perceptual flexibility: Maintenance or recovery of the ability to discriminate non-native speech sounds. *Canadian Journal of Psychology*, 38(4), 579-590.

Early exposure to Hindi resulted in perceptual advantages in adults even if Hindi had not been used for a long time.

Werker, J. F., & Tees, R. C. (1984). Cross-language speech perception: Evidence for perceptual reorganization during the first year of life. *Infant Behavior and Development*, 7(1), 49-63. [Republished in 1992: J. L. Miller, R. D. Kent, & B. S. Atal (Eds.), *Papers in speech communication: Speech perception* (pp. 733-747). New York: Acoustical Society of America Press. Also republished in 2002 with three commentaries for their special 25th anniversary issue: *Infant Behavior and Development*, 25(1), 121-133.]

Sensitivity to the language an individual was exposed to in the first year of life can be recovered in adulthood even if the language was not used later.

3.2 Production

Major, R.C. 1992. Losing English as a first language. *Modern Language Journal* 76, 190-208.

Native speakers are sometimes judged as non-native after a prolonged emigration; however, their perceived accent is considered quite slight and different from that of L2 speakers. The presence of a 'heritage' accent suggests that pronunciation is affected in heritage speakers to some extent.

de Leeuw, E., M. Schmid, and I. Mennen. 2010. Perception of foreign accent in native speech. *Bilingualism: Language and Cognition* 13, 33-40.

Native speakers of German living in Canada or Holland are perceived to have an accent in their first language after a prolonged emigration. However, this accent is perceived as different from and weaker than the accent of consecutive German-English bilinguals.

Au, T., L. Knightly, S. Jun, and J. Oh. 2002. Overhearing a language during childhood. *Psychological Science* 13, 238–243.

Even passive exposure to a language in childhood leads to lasting advantage in nativelike production of sounds (data from Spanish and Korean).

Godson, L. 2004. Vowel Production in the Speech of Western Armenian Heritage Speakers. *Heritage Language Journal* 2.

http://www.international.ucla.edu/languages/heritagelanguages/journal/article.asp?parenti d=14648

An investigation of vowel production in heritage speakers of Western Armenian. English affects the Western Armenian vowel system but only for those vowels that are already close to English. Thus a single across-the-board principle of transfer is shown to be too general. Other forces such as universal tendencies, normal diachronic change, and sociolinguistic pressures must be considered.

Khattab, G. 2002. VOT Production in English and Arabic bilingual and monolingual children. In D. Parkinson and E. Benmamoun (eds.). *Perspectives on Arabic linguistics*, 1-38. Amsterdam: John Benjamins.

Vowel onset time (VOT) phoneme production by heritage speakers of Arabic suggests possible age of acquisition effects, with heritage speakers who stopped learning before age 3 having more pronounced VOT differences.

Oh, J., S. Jun, L. Knightly, and T. Au. 2003. Holding on to childhood language memory. *Cognition* 86, B53-B64.

In Spanish, there was no difference in VOTs of voiceless stops in low proficiency heritage speakers as compared to native speakers, which may also suggest cross-language variation.

4 Studies of morphosyntax in heritage languages

4.1 Morphology

The investigation of morphological deficits in heritage languages has been a particularly active area of study.

4.1.1 Agreement and concord

The following studies examine agreement and concord in various linguistic subdomains of heritage language grammars—overall, attrition of agreement seems to be particularly prominent in heritage grammars.

Albirini, A., E. Benmamoun, and E. Saadah. 2011. Grammatical features of Egyptian and Palestinian Arabic heritage speakers' oral production. *Studies in Second Language Acquisition* 45.

Agreement in heritage Arabic as spoken in the US shows signs of attrition; however, different groups of speakers show a varying degree of attrition. In particular, Egyptian Arabic heritage speakers show a greater loss of agreement than Palestinian Arabic heritage speakers. This difference may have both structural and sociolinguistic underpinnings (Palestinian Arabic speakers are more focused on maintaining their language than some other Arabic émigrés).

Anderson, R. 2001. Lexical morphology and verb use in child first language loss. A preliminary case study investigation. *International Journal of Bilingualism* 5, 377–401.

A case study documenting gradual weakening of verb agreement in the Spanish spoken by child immigrants in the US.

Anderson, R. 1999. Noun phrase gender agreement in language attrition. Preliminary results. *Bilingual Research Journal* 23, 318–337.

A case study documenting gradual weakening of gender agreement in the Spanish spoken by child immigrants in the US.

Bolonyai, A. 2007. (In)vulnerable agreement in incomplete bilingual L1 learners. *The International Journal of Bilingualism* 11, 3–21.

Pervasive and systematic errors in nominal morphology of heritage Hungarian. Verbal morphology is preserved better, however, definiteness agreement is affected.

Fenyvesi, A. 2000. The affectedness of the verbal complex in American Hungarian. In A. Fenyvesi and K. Sándor (eds.) Language contact and the verbal complex of Dutch and Hungarian: Working papers from the 1st Bilingual Language Use Theme Meeting of the Study Centre on Language Contact, November 11-13, 1999, 94-107. Szeged, Hungary. Szeged: JGyTF Press.

Changes in verbal agreement of heritage Hungarian as spoken in the USA involve loss of definiteness agreement and problems with verbal particles.

Choi, H.-W. 2003. Paradigm leveling in American Korean. *Language Research* 39, 183-204.

Heritage speakers of Korean whose dominant language is American English have control of only one or two registers of Korean (typically, the informal register) and show the over-regualrization of patterns found in this register.

Håkansson, G. 1995. Syntax and morphology in language attrition. A study of five bilingual expatriate Swedes. *International Journal of Applied Linguistics* 5, 153–171.

Significant loss and restructuring of morphology in Heritage Swedish.

Montrul, S., R. Foote, & S. Perpiñan. 2008b. Gender agreement in adult second language learners and Spanish heritage speakers: The effects of age and context of acquisition. *Language Learning* 58, 3-54.

The study documents differences between heritage and L2 learners across modalities. The maintenance of gender agreement in adult heritage speakers shows age-of-acquisition effects.

Polinsky, M. 2006. Incomplete acquisition: American Russian. *Journal of Slavic Linguistics* 14, 191-262.

A comprehensive description of morphological deficits in heritage Russian. The degree of grammatical mastery of Russian is shown to correlate with lexical proficiency.

Polinsky, M. 2008. Russian gender under incomplete acquisition. *The Heritage Language Journal* 6, 1.

http://www.heritagelanguages.org/http://www.heritagelanguages.org/

Heritage speakers restructure the formal cues which are used to assign Russian nouns to gender classes. The degree of restructuring and the resulting number of genders correlates with the general proficiency as measured by speech rate.

Rothman, J. 2007. Heritage speaker competence differences, language change, and input type: Inflected infinitives in heritage Brazilian Portuguese. *The International Journal of Bilingualism* 11, 359–389.

The study presents experimental evidence that heritage speakers of Brazilian Portuguese lack knowledge of inflected infinitives.

4.1.2 Aspect

The following works examine the maintenance and/or change in the aspectual categories of heritage languages; given the prominence of the category of aspect in Slavic languages, it is understandable that this area has been subject to particularly active research in Slavic.

Anstatt, T. 2008. Aspect and tense in storytelling by Russian, German and bilingual children. *Russian Linguistics* 32/1, 1-26.

Narratives produced by Russian heritage speakers living in Germany shows aspectual restructuring and transfer effects.

Bar-Shalom, E. & E. Zaretsky. 2008 . Selective attrition in Russian-English bilingual children: Preservation of grammatical aspect. *International Journal of Bilingualism* 12, 281-302.

Russian-English bilingual children have an aspectual system which is not qualitatively different from the one in the baseline. This maintenance may follow from the continuous exposure to the language.

Gupol, O. 2009. *The acquisition of Russian verbal morphosyntax in Russian-Hebrew bilingual children*. Ph.D. Dissertation, Bar-Ilan University.

A comprehensive study of aspectual restructuring in Heritage Russian spoken by school age heritage speakers who are dominant in Hebrew.

Laleko, O. 2010. The syntax-pragmatics interface in language loss: Covert restructuring of aspect in Heritage Russian. Ph.D. Dissertation, University of Minnesota.

A study targeting production, interpretation, and acceptability of perfective and imperfective aspectual forms by heritage speakers of Russian. Heritage speakers have decreased sensitivity to lexical or clausal determinants of aspect and show particular vulnerabilities at the level of pragmatic interpretation. In cases of optionality, they seem to favor the imperfective aspect.

Montrul, S. 2002. Incomplete acquisition and attrition of Spanish tense/aspect distinctions in adult bilinguals. *Bilingualism: Language and Cognition* 5, 39–68.

This article investigates whether age of onset of bilingualism has an effect on ultimate attainment, and documents incomplete acquisition and attrition of tense/aspect morphology in Spanish. Results suggest that morpho-phonological spell-outs and semantic features of functional categories are affected by incomplete acquisition and language loss, and that many of the patterns of divergence found resemble stages of second language acquisition.

Montrul, S. 2009. Incomplete acquisition of Tense-Aspect and Mood in Spanish heritage speakers. *The International Journal of Bilingualism* 13, 239-269.

The study compares native and heritage speakers of Spanish with respect to the knowledge of tense, aspect, and mood morphology. The results show significant differences between the native speakers and the heritage speakers, confirming that heritage speakers make errors with verbal morphology. Accuracy on grammatical aspect and tense is higher than accuracy on subjunctive morphology in oral and written production and interpretation.

Polinsky, M. 2008. Without aspect. In G. Corbett and M. Noonan (eds.). *Case and grammatical relations*, 263-282. Oxford: Oxford University Press.

Low proficiency heritage speakers of Russian show a significant leveling of the aspectual paradigm. Aspectual distinctions are generally abandoned and speakers develop alternative, periphrastic means of encoding conceptual distinctions associated with aspect.

4.1.3 Tense and mood

These studies examine the knowledge of tense and mood categories in heritage grammars and demonstrate that while mood distinctions are subject to significant attrition, tense seems to be quite robust even if the heritage language is not used.

Blake, R. 1983. Mood selection among Spanish-speaking children, ages 4 to 12. *The Bilingual Review* 10, 21–32.

A study of mood forms in bilingual English-Spanish speaking children indicating that subjunctive is one of the more affected forms.

Martínez Mira, M. I. 2009. Spanish heritage speakers in the southwest: Factors contributing to the maintenance of the subjunctive in concessive clauses. *Spanish in Context* 6(1), 105-126.

A study of the distribution of subjunctive in different clause types in Heritage Spanish.

4.1.4 Case morphology

The following studies examine the attrition and reduction of case morphology in heritage languages.

de Groot, C. 2005. The grammars of Hungarian outside Hungary from a linguistic-typological perspective. In A. Fenyvesi (ed.). *Hungarian language contact outside Hungary*, 351-370. Amsterdam: John Benjamins.

Attrition of case marking in Hungarian as spoken by émigrés, especially in the context of case optionality and differential object marking.

Leisio, L. 2006. Genitive subjects and objects in the speech of Finland Russians. *Journal of Slavic Linguistics* 14, 289–316.

Genitive of negation is a weakening feature in baseline grammars of modern Russian, and it undergoes further attrition in heritage language.

Montrul, S. & Bowles, M. 2009. Back to basics: Differential Object Marking under incomplete acquisition in Spanish heritage speakers. *Bilingualism: Language and Cognition*, 12, 363–383.

A study of incomplete knowledge of differential object marking by Spanish heritage speakers raised in the United States in comparison with fully competent native speakers. Optionality and more fine-grained semantic distinctions are lost in the heritage language.

Montrul, S. & M. Bowles. 2010. Is grammar instruction beneficial for heritage language learners? Dative case marking in Spanish. *Heritage Language Journal* 7, 1, 47-73. http://www.heritagelanguages.org/

The study documents the effect of explicit classroom instruction on heritage speakers' control of differential object marking and the use of dative subjects with experiencer verbs. Explicit instruction leads to significant improvement both in production and comprehension.

4.2 Syntax

The papers listed below address various aspects of syntactic competence in heritage speakers and compare these speakers to monolingual controls as well as second language speakers. The syntactic characteristics most commonly considered include A-bar movement (extraction) regularities, word order, and binding.

Bruhn de Garavito, J. 2002. Verb raising in Spanish, a comparison of early and late bilinguals. *Proceedings of the 26th Annual Boston University Conference on Language Development*, 84–94. Somerville: Cascadilla Press.

Early bilinguals have a better control of word order and adverbial placement than L2 learners of Spanish.

Keating, G., Jegerski, J., and VanPatten, B. 2011. Who was walking on the beach? Anaphora resolution in Spanish heritage speakers and adult second language learners. *Studies in Second Language Acquisition* 33, 2.

Heritage speakers of Spanish show stronger reliance on grammatical cues in the resolution of anaphoric dependencies than second language learners. However, both groups are different from the native speaker control group.

Kim, J-H, Montrul, S. and Yoon, J. 2009. Binding interpretation of anaphors in Korean heritage speakers. *Language Acquisition* 16, 1, 3-35.

Heritage Korean undergoes changes in the anaphoric system leading to the reduced use of the anaphoric form *caki* and null pronominal forms.

Lee-Ellis, S.-Y. 2011. The elicited production of Korean relative clauses by heritage speakers. *Studies in Second Language Acquisition* 33, 57-89.

A comparison of Korean native and heritage speakers' performance in an elicited production task which involved subject and object relative clauses. Proficiency scores exhibited a modest correlation with the different individual response patterns.

O'Grady, W., M. Lee, & M. Choo. 2001. The acquisition of relative clauses by heritage and non-heritage learners of Korean as a second language. A comparative study. *Journal of Korean Language Education* 12, 283–294.

Heritage language re-learners of Korean perform better than their L2 counterparts in the acquisition and comprehension of relative clauses. Both groups show a preference for subject relatives.

O'Grady, W., Kwak, H-K, Lee, M. & Lee, O-S. 2011. An emergentist perspective on partial language acquisition. *Studies in Second Language Acquisition* 45. The paper examines the role of factors implicated in processing difficulty, such as prominence of an expression and length of as filler-gap dependency in the acquisition of relative clauses, including Korean relative clauses.

Polinsky, M. 2011. Reanalysis in adult heritage language: A case for attrition. *Studies in Second Language Acquisition* 45.

An experimental study of relative clause comprehension in heritage Russian showing clear effects of attrition in adult heritage language.

5 Studies of semantics and pragmatics in heritage languages

5.1 Lexical knowledge

O'Grady, W., A. J. Schafer, J. Perla, O.-S. Lee, & J. Wieting. 2009. A Psycholinguistic Tool for the Assessment of Language Loss: The HALA Project. *Language Documentation & Conservation* 3, 100-112.

Introduces a naming task being developed as part of the Hawai'i Assessment of Language Access (HALA) project. This task exploits the fact that the speed with which bilingual speakers access lexical items in their two languages offers a sensitive measure of relative language strength. In a pilot study conducted with Korean-English bilinguals, the authors were able to establish a strong correlation between language strength and naming times even in highly fluent bilingual speakers, which supports of the central assumption underlying the HALA tests.

Polinsky, M. 1997. American Russian: Language loss meets language acquisition. In W. Browne et al. (eds.). *Formal Approaches to Slavic Linguistics*, 370-407. Ann Arbor, MI: Michigan Slavic Publications.

The paper reports a correlation between lexical knowledge and extent of morphosyntactic attrition in heritage speakers of Russian. The author proposes to assess lexical knowledge using translations from the dominant language into the heritage language (these papers use the Swadesh basic vocabulary list).

Polinsky, M. 2006. Incomplete acquisition: American Russian. *Journal of Slavic Linguistics* 14, 191-262.

An extension and elaboration of the results presented in Polinsky (1997).

Hulsen, M. 2000. Language loss and language processing. Three generations of Dutch migrants in New Zealand. Ph.D. dissertation, University of Nijmegen, The Netherlands.

A study of lexical access in production and comprehension in Dutch heritage speakers in New Zealand. Second generation Dutch speakers differed significantly in both speed and accuracy of lexical retrieval from both first generation speakers and a control group of Dutch speakers in the Netherlands. Third generation speakers managed to perform the picture-matching task (comprehension) but were unable to perform the picture-naming task (production).

5.2 Semantics

Kupisch, T. & C. Pierantozzi. 2010. Interpreting definite plural subjects: A comparison of German and Italian monolingual and bilingual children. In K. Franich et al. (eds.). 34th Boston University Conference on Language development, 245-254. Boston: Boston University Press.

Germanic languages allow bare plurals in generic contexts (*Dogs have tails*), whereas in Romance such bare plurals are generally impossible (*Les chiens ont des queues/*Chiens ont...*). This study shows a trend towards the over-acceptance of bare plurals in inappropriate contexts by Romance heritage speakers whose dominant language is German.

Montrul, S. & T. Ionin. 2010. Transfer effects in the interpretation of definite articles by Spanish heritage speakers. *Bilingualism: Language and Cognition*, 13, 449-473. Spanish heritage speakers exhibit transfer from English into Spanish with the interpretation of definite articles in generic contexts. Their interpretation of definite articles in inalienable possession contexts remains intact, however.

Montrul, S. & T. Ionin. 2011. Dominant language transfer in Spanish heritage speakers and L2 learners in the interpretation of definite articles. *The Modern Language Journal* 14, 35-46.

The use and interpretation of definite articles in Spanish undergoes transfer from English, especially in generic contexts.

Serratrice, L., Sorace, A., Filiaci, F. & Baldo, M. 2009. Bilingual children's sensitivity to specificity and genericity: evidence from metalinguistic awareness. *Bilingualism:* Language and Cognition 12, 239 - 257.

An investigation of the effect that the knowledge of a particular construction in one language may have on the ability to judge the grammaticality of a similar construction in another language. English–Italian and Spanish–Italian bilingual children and monolingual peers judged the grammaticality of plural NPs in specific and generic contexts in English and in Italian. Knowledge of English affected the bilinguals' ability to discriminate

between grammatical and ungrammatical sentences in Italian. The English–Italian bilinguals were significantly less accurate than both the monolinguals and the Spanish–Italian bilinguals in a task where they simply had to rely on the local definite article cue to reject ungrammatical bare plurals in generic contexts.

5.3 Discourse

Studies indicate that heritage languages consistently lose null subjects (and objects), replacing them by overt nominal expressions. This change takes place not only in the context of English (which itself does not have pro-drop) but also in the context of a pro-drop dominant language (e.g., Spanish or Italian). It is therefore impossible to account for such a change by transfer effects alone. The proposal by Sorace and co-authors is that null pronominals, which need to be identified by association with a discourse antecedent, lie at the syntax-discourse interface, and interface phenomena are particularly susceptible to attrition.

Polinsky, M. 1995. Cross-linguistic parallels in first language loss. Southwest Journal of Linguistics 14, 88-123.

Significant loss of pro-drop in several heritage languages.

Sorace, A. 2004. Native language attrition and developmental instability at the syntax-discourse interface: Data, interpretations, and methods. *Bilingualism: Language and Cognition* 7, 143-145.

Increase in the use of overt pronouns in heritage languages whose baseline includes null pronominals. The loss of pro-drop is due to the difficulty in identifying the reference of the null pronominal due to the complexity of the interface conditions.

Sorace, A. 2005. Selective optionality in language development. In I. Cornips and K. Corrigan (eds.). *Syntax and variation: Reconciling the biological and the social*, 55-80. Amsterdam: John Benjamins.

Further arguments for the interface hypothesis as applied to pro-drop.

Sorace, A. 2011. Pinning down the concept of "interface" in bilingualism. *Linguistic Approaches to Bilingualism* 1, 1-33.

A detailed analysis of the interface hypothesis in application to bilinguals and advanced second language learners.

Sorace, A. and Serratrice, L. 2009. Internal and external interfaces in bilingual language development: Beyond structural overlap. *International Journal of Bilingualism* 13, 195-210.

The paper shows that cross-linguistic influence may occur in bilingual first language acquisition and attrition particularly in more complex areas (interface domains), for example, at the interface between syntax and pragmatics.

6 Studies of individual heritage languages

6.1 Arabic (in the USA)

Albirini, A., E. Benmamoun, and E. Saadah. 2011. Grammatical features of Egyptian and Palestinian Arabic heritage speakers' oral production. *Studies in Second Language Acquisition* 45.

Description of grammatical features that undergo attrition in heritage Arabic. Egyptian Arabic is shown to undergo greater changes than Palestinian Arabic, which may be due to social and sociolinguistic factors.

Bale, J. 2010. Arabic as a heritage language in the United States. *International Multilingual Research Journal* 4, 125-151.

An overview of Arabic as spoken in the USA with an emphasis on historical and demographic issues and a sketch of language maintenance scenarios.

Sofu, H. 2009. Language shift or maintenance within three generations: examples from three Turkish-Arabic-speaking families. *International Journal of Multilingualism* 6, 246-257.

A case study of language reduction and attrition.

6.2 Armenian (in the USA)

Godson, L. 2003. *Phonetics of language attrition: Vowel production and articulatory setting in the speech of Western Armenian heritage speakers*. Ph.D. dissertation, UCSD.

An instrumental study of the vowel system of heritage Western Armenian as spoken in the USA.

6.3 Chinese (Mandarin, Cantonese; mostly in the USA)

He, A. (ed.). 2008. *Chinese as a heritage language: Fostering rooted world citizenry*. Honolulu: University of Hawaii Press.

A collection of articles addressing social, linguistic, psychological, demographic, and educational aspects of heritage Mandarin Chinese as spoken in the USA and Great Britain.

Tao, H. (ed.). 2006. *Heritage Language Journal. Special issue on Chinese*. Vol. 4, 1. http://www.international.ucla.edu/languages/heritagelanguages/journal/volume4.asp A collection of articles discussing linguistic and pedagogical issues of Heritage Chinese as spoken in the USA.

Wang, X. (ed.) 1996. A view from within: A case study of Chinese heritage community language schools in the United States. Washington, DC: The National Foreign Language Center.

A series of studies on the social, demographic, and educational issues of Chinese maintenance in the USA.

Wei, L. & S. Lee. 2001. L1 development in an L2 environment: The use of Cantonese classifiers and quantifiers by young British-born Chinese in Tyneside. *International Journal of Bilingual Education and Bilingualism* 4, 359-382.

The paper examines Cantonese data from a group of 34 British-born Chinese-English bilinguals, aged between 5 and 16 years. The speakers have difficulties with more

specific Cantonese classifiers and quantifiers, which is attributed to incomplete language learning and transfer from English. Despite a slight positive correlation between age and Cantonese ability, there is evidence of delayed and stagnated L1 development.

6.4 Finnish

Halmari, H. 1997. Government and code-switching: Explaining American Finnish.

Amsterdam: John Benjamins.

A detailed description of morphosyntactic changes in Heritage Finnish with an emphasis on code-switching and differences between Heritage Finnish and the baseline language.

6.5 Hungarian

Fenyvesi, A. (ed.). 2005. *Hungarian language contact outside Hungary: Studies in Hungarian as a minority language*. Amsterdam/Philadelphia: John Benjamins. A collection of articles discussing the use of Hungarian in European countries and the USA with an emphasis on social aspects of language use and language attitudes.

6.6 Inuttitut

Sherkina-Lieber, M. 2010. Comprehension of functional morphemes by Labrador Inuttitut receptive bilinguals. *Boston University Conference on Language Development, Proceedings* 34, 2, 351-362.

The knowledge of functional morphology by heritage speakers of Inuttitut is measured using comprehension techniques and is shown to be superior to that of late bilinguals.

Sherkina-Lieber, M., A. Perez-Leroux, & A. Johns. 2011. Grammar without speech production: The case of Labrador Inuttitut receptive bilinguals. *Bilingualism: Language and Cognition* 13.

Published online: 22 February 2011

DOI:10.1017/S1366728910000210

Although heritage speakers of Labrador Inuttitut do not have production skills and are therefore receptive bilinguals or overhearers, their morphological discrimination as measured by comprehension tasks is superior to that of late bilinguals. The control of verbal morphology appears to be stronger than the control of nominal morphology.

6.7 Korean (mostly in the US)

Choi, H.-W. 2003. Paradigm leveling in American Korean. *Language Research* 39, 183-204.

Restricted use of registers in heritage Korean and subsequent morphological restucturing.

Cho, G., Cho, K.S., and L. Tse. 1997. Why ethnic minorities need to develop their heritage language: The case of Korean Americans. *Language, Culture and Curriculum, 10*, 106-112.

A discussion of heritage speakers' motivations for continuing study of their heritage language with an emphasis on reading skills.

Kang, H.-S. 2010. Negative evidence and its explicitness and positioning in the learning of Korean as a heritage language. *The Modern Language Journal* 94, 582-599. Heritage speakers of Korean benefit from explicit grammar instruction.

Kim, H.-S. H. 2006. *Processing strategies and transfer of heritage and non-heritage learners of Korean*. Ph.D. dissertation, University of Hawai'i at Manoa. A comparison of heritage speakers of Korean and advanced second language learners shows that they have different strengths and deficits.

Lee, J.S. & Shin S.J. (eds.) 2008. *Heritage Language Journal. Special issue on Korean as a heritage language*. Vol. 6, 2.

A collection of articles addressing linguistic and pedagogical issues of heritage Korean as spoken in the USA.

Oh, J. 2003. *Raising bilingual children: Factors in maintaining a heritage language*. Ph.D. Dissertation, UCLA.

An investigation of social, psychological and linguistic factors supporting continuous use of a heritage language in the American cultural setting.

Shin, S.J. 2005. *Developing in two languages: Korean children in America*. Clevedon, UK: Multilingual Matters.

A comprehensive overview of Korean immigration in the USA, language attitudes to bilingualism and maintenance of Korean, code-switching, and effects of language shift.

Kim Y.-H. (ed.). 1997. *Korean Language in America 2*. American Association of Teachers of Korean.

A collection of articles addressing issues of language maintenance and continuing language education for heritage speakers of Korean.

6.8 Polish

Dubisz, S. (ed.). *Język polski poza granicami kraju*. Opole: Uniwersytet Opolski. A collection of articles on the distribution and use of Polish in the émigré setting.

Laskowski, R. 2009. Język w zagrożeniu. Przyswajanie języka polskiego w warunkach polsko-szwedzkiego bilingwizmu. Warsaw: Universitas.

A study of Polish-Swedish bilingualism.

6.9 Russian (mainly in the US, Germany, Israel and Finland)

Andrews, D. (ed.). 2008. Heritage Language Journal. Vol. 6.1: A Special Issue on Russian as a heritage language.

A collection of articles examining morphological, syntactic, and lexical production and comprehension of adult heritage speakers of Russian as well as issues of re-learning at college level.

Andrews, David R. 1999. *Sociocultural perspectives on language change in diaspora:*Soviet immigrants in the United States (Impact: Studies in Language and Society,

5.) Amsterdam/Philadelphia: John Benjamins.

A comprehensive overview of the Russian speaking immigration in the USA in the second half of the twentieth century. A survey of language attitudes, language retention, and patterns of shift.

Anstat.t, T. 2008. Russisch in Deutschland: Entwicklungsperspektiven. *Bulletin der deutschen Slavistik* 14, 67-74.

An overview of patterns of change in the Russian language as spoken by immigrants in Germany.

Mustajoki, A., & Protassova, E. (eds.) 2004. *Russkojazyčnyj čelovek v inojazyčnom okruženii* [Russian-speaking person in a non-Russian language environment.] Helsinki: Yliopistopaino.

A collection of articles examining social, cultural, and linguistic aspects of the Russian language in diaspora.

Protassova, E. 2004. *Fennorossy: žizn' i upotreblenie jazyka* [Fennorosses: life and use of language.] St Petersburg: Zlatoust.

Social and demographic aspects of the maintenance of Russian in Finland.

Rifkin, B. & O. Kagan (eds.). *The learning and teaching of Slavic languages and cultures*. Bloomington, Indiana: Slavica.

A collection of articles addressing social, cultural, pedagogical, and linguistic issues of Russian and other Slavic languages in the USA.

6.10 Spanish

Delgado, M. R. 2009. *Spanish heritage language socialization practices of a family of Mexican origin*. Ph. D. Dissertation, University of Arizona.

A case study of social and cultural practices leading to the maintenance or loss of Spanish in the English-speaking context.

Montrul, S. 2008. *Incomplete acquisition in bilingualism. Re-examining the age factor.*Amsterdam: John Benjamins.

A comprehensive description of grammatical properties characterizing Heritage Spanish as spoken in the USA. The monograph also presents an overview and discussion of prior research on heritage languages.

Montrul, S. (ed.). 2011. *Heritage Language Journal* 8, 1. *Special issue on Heritage Spanish*.

A collection of articles bringing together sociao-cultural, linguistic, and pedagogical investigations of Heritage Spanish.

Roca, A. and J. Lipski (eds.). 1993. *Spanish in the United States*. Berlin: Mouton. A collection of articles documenting different varieties of Spanish spoken in the USA.

Roca, A. (ed.). 2000. Research on Spanish in the United States: Linguistic issues and challenges. Sommerville: Cascadilla Press.

A collection of linguistic and sociolinguistic articles on different varieties of Spanish spoken in the USA and Latin America.

Roca, A. & C. Colombi (eds.). 2003. *Mi lengua: Spanish as a heritage language in the United States*. Washington, DC: Georgetown University Press.

A collection of papers dedicated to the research, theory, and practice of teaching Spanish to heritage speakers in the United States.

Silva-Corvalan, C. 1994. *Language contact and change*. Oxford: Clarendon Press. A comprehensive description of the Spanish language spoken in Los Angeles and representing different degrees of language attrition and restructuring. The monograph presents multiple examples of Angeleno Spanish and discusses social and linguistic markers of language change.

7 Journals publishing on heritage languages

Heritage Language Journal (online only)

http://www.international.ucla.edu/languages/heritagelanguages/journal/

A refereed journal specifically dedicated to heritage languages and heritage speakers and hosted by the UCLA Center for World's Languages.

The following journals regularly publish articles on heritage languages (their commonly used abbreviations are shown in parentheses):

Bilingualism: Language and Cognition (BLC)

Bilingual Research Journal

International Journal of Bilingualism (IJB)

International Journal of Bilingual Education and Bilingualism

Linguistic Approaches to Bilingualism (LAB)

Studies in Second Language Acquisition (SSLA)

The following journals address more applied issues of heritage language study:

The Foreign Language Annals

The Modern Language Journal