Heritage languages and their speakers: state of the field, challenges, perspectives for future work, and methodologies

Maria Polinsky[1]

Dieser Artikel präsentiert einen Überblick zu Studien im Bereich Herkunftssprachen mit einem Schwerpunkt auf der Situation in den USA. Beginnend mit einer Definition von Herkunftssprachen, liefert der Beitrag eine kurze Zusammenfassung linguistischer Herkunftssprachenforschung und untersucht die miteinander verflochtenen Beziehungen zwischen Forschung und Unterrichtspraxis. Zudem wird dafür argumentiert, dass bestimmte Erhebungsmethoden aus der Herkunftssprachenforschung, insbesondere Grammatikalitätsurteile, keine angemessenen Testinstrumente für die Zielgruppe darstellen. Das nächste Ziel in der Herkunftssprachenforschung wird darin bestehen funktionierende, aufeinander abgestimmte Instrumentarien zu entwickeln und effektive Testmethoden für Herkunftssprachensprecher/innen zu etablieren. Diese können von den Lehrenden unmittelbar im Klassenzimmer angewendet werden, um den Sprachstand ihrer Lernenden zu untersuchen und deren Fortschritte zu verfolgen. Der Aufbau einer großen Datenbank zum Fortschritt von Lernenden im Herkunftssprachenunterricht stellt eine unmittelbare Notwendigkeit im Bildungssystem dar; die Etablierung einer solchen Datenbank erfordert ein gründliches Testen der Lernenden vor Beginn, während und nach Abschluss des Herkunftssprachenunterrichts.

1. Introduction

The study of heritage languages is an emerging field, but heritage languages themselves have existed throughout history. There have been heritage speakers as long as immigration has moved families across language borders and as long as bilingual communities have been divided into *dominant* and *minority* language settings. Heritage speakers generally feel a cultural or familial connection to their heritage language, but in terms of actual linguistic competency, they are more proficient in another language – the language that is dominant in their (new) community. Although heritage speakers often receive extensive exposure to the heritage language during childhood, they typically do not reach their parents' or grandparents' level of fluency. According to some broad definitions, a heritage speaker might have no proficiency in the heritage language; in this case, the language is a 'heritage language' in primarily a cultural, rather than linguistic, sense (Fishman 2001; Van Deusen-

---

1 Korrespondenzadresse: Prof. Dr. Maria Polinsky, Harvard University, Department of Linguistics, Boylston Hall, Cambridge, MA 02138, E-mail: polinsky@fas.harvard.edu

School 2003). In the language classroom, broadly defined heritage speakers are equipped with family or cultural motivation to master the language of their ancestry but have no particular language skills which set them apart from their peers. Linguistically speaking, they are essentially indistinguishable from other second language learners. These are not the speakers of interest in heritage language research, and in the rest of this chapter we will concentrate on those heritage speakers who are bilingual in their home and dominant language, albeit to a different degree.

The true 'heritage speaker' is one whose personal experience with the heritage language has led to some significant proficiency in that language. Following this narrow definition, heritage speakers are individuals who were raised in homes where a language other than the dominant community language was spoken and thus possess some degree of bilingualism in the heritage language and the dominant language (Valdés 2000; Polinsky and Kagan 2007; Pascual y Cabo and Rothman 2012; Benmamoun et al. 2013). A heritage speaker may also be the child of an immigrant family, born into an environment where the heritage language was culturally dominant but abruptly shifted from this first language to the dominant language of his or her new community upon immigration. Crucially, in each of these cases, the heritage speaker began learning the heritage language before, or concurrently with, the language which would become his or her stronger language. Their resulting bilingualism may be imbalanced, perhaps heavily in favor of the dominant language, but some abilities in the heritage language do persist, arising from early exposure in the home. In the US, the dominant language of all heritage speakers is American English, while any of the hundreds of immigrant and Native American languages which are still spoken in the home or in local communities are potential heritage languages.

Heritage speakers have been called semi-speakers (Dorian 1981), incomplete acquirers (Montrul 2002; Polinsky 2006), early bilinguals (Kim et al. 2006), unbalanced, dominant, or pseudo-bilinguals (Baker and Jones 1998), and recessive bilinguals (Sherkina-Lieber et al. 2011). The unification of these several ill-defined categories under the single term 'heritage speaker', first used in Canada (Cummins 2005: 585), has focused the efforts of linguists as well as educators and set in motion a research agenda with far-reaching implications. Heritage speakers exist along a continuum of ability – from those who can read and write in their home language to those who can barely speak the language (the latter are typically referred to as 'receptive bilinguals'). Despite the tremendous variance among heritage speakers within and across languages and despite differences in life stories, heritage speakers all

share certain properties – some knowledge of the home language, the need to balance that language with English (or another dominant language) that they are much more comfortable speaking, and the awareness that they are different from monolinguals and from their parents in the way they speak the home language. This latter characteristic is important because we often find that heritage speakers are stigmatized for the way they use the heritage language viewed as somehow "incomplete" by those who speak the language fluently. While any small step made by second language learners is celebrated and cheered by both their teachers and monolingual interlocutors, heritage speakers are subject to a different set of criteria and frequently criticized for any small misstep. The double standard applied to second language speakers and heritage speakers is something that must be discussed and addressed. Heritage speakers are often judged according to the maxim "to whom much is given, much will be required". But do we actually know how much is given to these speakers?

The central goals of the study of heritage language fall into four categories as follows: (i) describing precisely what it means to be a heritage speaker and identifying the range of variation among different heritage languages and their speakers, (ii) using patterns in the structure of heritage languages to inform our understanding of the uniquely human ability to create and use languages in general, (iii) testing the possibility of predicting the degree of heritage language maintenance or loss for a particular individual or community, and (iv) determining the particular pedagogical challenges presented and faced by heritage speakers in the classroom. In what follows, I will briefly outline each of these areas. My remarks are not intended to be comprehensive; instead, it is my goal to show what must be accomplished and how the field can proceed.

2. Whence heritage language variance?

One of the recurrent observations concerning heritage speakers deals with the dramatic degree of variance that these speakers demonstrate, from proficiency in speaking to variation in literacy to dialectal differences. Such variation is frustrating at times and poses significant challenges.

When a researcher plans to study a heritage language, their first challenge is to identify an appropriate "baseline" language against which to compare heritage speech. The baseline language must be the precise variety of the language that the heritage speaker was exposed to during childhood, as spoken by native speakers in natural situations. This is not necessarily the standard language variety of the native-speaking population or the variety that is taught

in the language classroom. The home language of the heritage speaker is most likely a regional dialect, and exposure to other dialects or a formal standard is unusual. For example, it is only reasonable to expect that a child raised by Mexican Spanish-speaking parents will have been exposed primarily to Mexican Spanish. Very often the only exposure the heritage speaker has to his or her heritage language is through the speech of the same, small group of close relatives during childhood. This home speech is not representative of the speech of the entire native-speaking population, nor does it cover all the possible contexts in which a language can be used. These limitations inevitably shape the form of the language produced by heritage speakers. Establishing the baseline for a given heritage language is not always obvious or easy, but identifying precisely the target language that the child learner was exposed to is essential for establishing how close that learner came to achieving complete acquisition. Using the standard of the language rather than the baseline for comparative purposes would be counterproductive.

A fundamental refinement of our definition of the heritage speaker must be in order before we can proceed. Heritage speakers may show certain similarities in their personal language history within and across heritage languages, but they do not all show equivalent abilities in their respective heritage languages. Individual speakers will vary in how close their mental representation of the heritage language comes to that of a native speaker. The "continuum model", a concept developed in the study of creole languages, lends itself well to the description of this variation (Polinsky and Kgan 2007). Rather than imagining the same level of proficiency for all heritage speakers, we should expect each speaker to fall somewhere along a continuum that stretches from those who can almost pass as native speakers to those who can barely string a few words together in the heritage language. Those on the higher end of this continuum are highly proficient speakers with only slight deviations from the norms set by fully native speakers; those on the lower end of the continuum may have had limited exposure to the language during childhood and perhaps never spoke it themselves. Heritage speakers will differ as to where they fall along this continuum, and there are many factors involved in determining the ultimate abilities of a bilingual; nevertheless, there are common patterns in their language abilities that unite heritage speakers as a single category within bilinguals.

By definition, a heritage speaker's exposure to the heritage language is based around home and family with a great deal of variation in the language experiences of different heritage speakers. The length and manner of home exposure will determine the development of the child's heritage language.

Imagine a scenario in which a five-year-old girl moves with her family from Mexico City to Los Angeles. Before moving, she was immersed in Mexican culture and the Spanish language not only at home with her parents and older siblings, but also in the wider community. In California, she continues to use Spanish with her family and also practices her language skills in an extensive, local Spanish-speaking community. The language used in her school is English, and she speaks English increasingly with friends as she grows up, but her parents choose to continue using Spanish at home and consider it an asset to their children's future career prospects.

Now imagine another child, born and raised in rural Maine, exposed to English and some French in the wider community. One of his parents, who moved from Argentina before he was born, speaks some Spanish with him at home and on the phone with family. He has no siblings and uses only English with friends. For these two hypothetical children, the manner and length of exposure to Spanish is clearly not equivalent, and this discrepancy will inevitably have an effect on their eventual language abilities. The Spanish language has been an active and encouraged presence in the life of the first child, whereas the second child has been exposed to Spanish only incidentally. Differences like these, as well as differences in family attitudes toward the heritage language and culture, have been found to correlate with heritage speakers' ultimate success in learning the heritage language (Au and Oh 2005).

The continuum model formalizes the variety we see among heritage speakers, but it is their common characteristics that allow us to categorize them as a unified group of bilinguals. These similarities deal with their personal language history; heritage learners are placed along the continuum according to their home exposure during childhood. The type of informal exposure typically received by heritage speakers results in their strongest language skill being aural comprehension. Stories abound about the second- or third-generation children of an immigrant family who understand their grandparents Spanish but must, or choose to, respond to the grandparents in English. This scenario is extremely common across heritage speakers and languages. Some speakers grow up overhearing the heritage language but rarely speak it themselves. Naturally, these speakers' strength will be in understanding others rather than producing any language themselves. Yet even aural exposure alone has been found to confer some amount of language ability (Au and Romo 1997).

Beyond comprehension skills, the ability to then successfully reply to those Spanish-monolingual grandparents will vary greatly from speaker to speaker and will largely depend on the child's access to a larger baseline language community where he or she may find more opportunity to hear and use

the heritage language. For those speakers whose heritage language exposure and use is limited to the home, however, the opportunities to practice those linguistic skills are much more limited. Unfortunately, a heritage speaker's confidence in his or her own heritage language skills is largely determined by the ability to speak and less on comprehension skills. A cycle may develop in which the heritage speaker will attempt to say something in his heritage language but fail to sound quite like a native speaker, reinforcing his already low language confidence and discouraging him from using it again in the future. The stability of the heritage speaker's confidence and positive attitude toward the language is fundamental to buoying proficiency in the heritage language; without this stability, there is little motivation for speaker to maintain the language, and his skills may stagnate.

Whether a heritage speaker possesses any reading and writing abilities will depend on the amount of formal instruction he or she has received in the heritage language. Generally speaking, a heritage speaker's exposure to the heritage language is unlikely to have included formal instruction. For home learners or young immigrants, formal schooling in the heritage language is rarely a component of the heritage speaker's personal history. Very often, heritage speakers only become literate in their dominant language, and those literacy skills are not always transferable to the heritage language, especially if that language uses a different orthography or requires knowledge of a formal written register. Children who immigrated after some amount of formal schooling will have an advantage in this regard, but adult-level literacy does not follow straightforwardly from a basic understanding of the connections between sounds and symbols on the page. Exposure to literary composition comes gradually, and one's own literary style continues to develop into adulthood. It is unreasonable to expect a speaker with elementary-level literacy to understand the literary language of his or her heritage culture. If a heritage speaker possesses literacy skills at all, he or she is likely to be better at reading than writing. This tendency follows the same pattern of comprehension over production skills, which is observed in the spoken language.

Now that we have established a precise understanding of the parameters of 'heritage languages', it is possible to observe patterns across different heritage languages and their speakers. Heritage speakers who are fluent enough to speak the language to some level often show similar strengths and weaknesses. In particular, they often give an inflated impression of fluency, since their accent will be close to that of a native speaker (Au and Romo 1997). For reasons which are still unknown, even speakers on the low end of the heritage

speaker continuum sound native-like. Unfortunately, in the language classroom, this misperception of fluency can lead to the heritage speaker being placed in an inappropriate language level and subjected to unreasonable expectations from language instructors (Peyton et al. 2001). Heritage speakers' seemingly near-native pronunciation often belies an incomplete or divergent underlying grammatical knowledge. Their strengths and skill gaps will not necessarily match those of their classroom peers, who are most likely second language learners with an entirely classroom-based knowledge of the language. The heritage speaker will excel at pronunciation and aural comprehension, but without previous formal instruction, their overt knowledge of grammar may lag behind that of traditional language students who seem to be at the same level.

Another recurrent feature found across speakers of different heritage languages is simplification of the grammatical system (cf. Benmamoun et al. 2013a). Grammatical adjustments, developed by children to reduce the complexity of the baseline grammar, can manifest in many ways, such as in changes to the expected word order of a sentence (Sanchez 1983; Silva-Corvalán 1994; Halmari 1997), access to fewer options for marking a word's grammatical case (Seliger and Vago 1991; Halmari 1998), or a general reduction of ambiguity. Speakers of heritage Spanish, for example, have been known to avoid using verbs of achievement in the imperfect tense. The imperfect tense is generally associated with a sense that an action is ongoing in the past, while achievement verbs typically describe an event with an end-point. Heritage Spanish speakers seem to have overgeneralized the semantics of the imperfect tense to exclude the possibility of using it to indicate a completed action; as a result, they never employ this tense with a verb of achievement, despite the acceptability of such a construction among native speakers (Montrul 2002). Native speakers of Spanish also allow the subject and verb to be inverted in some situations, resulting in an optional verb-initial sentence structure. Heritage speakers, however, avoid the use of this word order, which may indicate that sentence structure is perceived as more rigid in the heritage language than in the baseline (Sanchez 1983; Silva-Corvalán 1994; Halmari 1997; Isurin and Ivanova-Sullivan 2008). On the other hand, heritage speakers of many heritage languages are apparently quite good at maintaining high-frequency fossilized forms as set phrases or frozen chunks, such as polite imperatives and phrases referring to time or location (e.g., "at home" or "on Tuesday") – see Polinsky (2006) for a discussion of such fossilizations in Heritage Russian as spoken in the USA. The ease with which heritage speakers use these frozen phrases, and with native-like pronunciation no less, adds to the impression that they are more fluent than they really are, especially when these phrases

are actually somewhat grammatically complex. But despite impressions, the language as these speakers know it is really more like a variant of the baseline than a full-fledged replica.

3. Heritage speakers in the classroom

The practical applications of heritage language research naturally fall within the domain of language teaching. At a time when most countries are turning increasingly outward – economically, politically, and culturally – tapping into the benefits of our own population of bilinguals is essential. Heritage speakers are an underdeveloped resource among bilinguals, and they should be encouraged by today's globalized state to develop their language skills. Their advantages over second language learners, particularly in pronunciation and cultural insight, give them a clear advantage in eventually achieving native-like fluency. For instance, the children of those 23 million Spanish speakers in America have a far better chance than adult second language learners of reaching functional proficiency in Spanish, even if their childhood exposure was as minimal as simply overhearing the language. Pedagogical solutions to address the challenges that heritage language learners face in the classroom are necessary, but arriving at such solutions is not possible without awareness on the instructor's part of the nature of heritage language. Without some sensitivity to the heritage speaker profile on the part of language teachers, the heritage language learner may fall through the proverbial cracks and miss out on the opportunity to regain proficiency in his or her home language.

Since heritage speakers' baseline language is often not the same variety as the linguistic standard being taught in the classroom (see the discussion above), it would be unreasonable to expect heritage speakers to know the standard. If the emphasis is on speaking "correctly", heritage language learners may feel stigmatized because of their dialect-heavy language skills and may lose their motivation to continue a language course (Wiley 2008). The situation is worse in cases where the instructor is biased in favor of one dialect over another, whether consciously or unconsciously. This problem of "instructor bias" is common to a number of language classrooms, but because of the predominance of Spanish in foreign language classrooms in the USA, this problem has been made explicit in the study of attitudes held by members of university Spanish departments in the US toward academic Spanish as it is spoken by Spaniards, Mexicans, Latin Americans, or Chicanos. A study found that the educators' views on literacy and prestige dialects resulted in prejudices which favor

certain varieties of academic Spanish and disfavor others (Valdés et al. 2008). It is, of course, unreasonable to expect that every variety or dialect be given its own course materials, but language instructors can better accommodate heritage language learners simply by recognizing that their use of non-standard language is often dialectal and not erroneous. A mix of heritage language and traditional language learners in the same classroom can even be an asset, provided that the situation is handled with sensitivity. After all, understanding the culture attached to a particular linguistic community is one of the primary goals of a language course. Language learners are able to bring their own cultural insight into the language classroom, and in return, the interest of their classroom peers can encourage them to maintain a positive attitude toward their heritage language.

However, the pedagogical challenges posed by heritage speakers are not always easily solved. The first step in addressing the particular needs of the heritage language learner in the classroom is finding a reliable method of evaluating their abilities. As noted above, impressions of a heritage speaker's fluency can be misleading – their accent and comfort with set phrases is not representative of their overall language ability. Like a native speaker, a heritage speaker will speak a dialect rather than the standard language, and quick, casual speech may even seem to come naturally to a highly proficient heritage speaker. Such speakers may also share a certain cultural fluency because of their family connection to the heritage language. These advantages can be intimidating to the heritage speakers' classroom peers, who generally have a different set of strengths and weakness. Because of their classroom-based exposure, second-language learners are more likely to perform well on written tasks than on aural reception tasks, whereas the strengths of the heritage speaker are the exact opposite. With their exposure to the language mostly confined to speech, they excel at aural reception and struggle with written tasks. Fundamental differences like these in the needs of heritage speakers as learners has led to the rapid development of dedicated heritage language classes, such as "Spanish for heritage speakers". Generally, these classes are adapted from the traditional courses designed for the teaching of foreign languages and encourage a more learner-centered approach (Carreira 2004). The goals of heritage language learners are primarily related to maintaining the language abilities they already have, expanding those abilities, developing literacy skills, and learning the standard or prestige variety (Valdés 2000: 390). There is clearly some overlap between these goals and those of traditional language learners, but a dedicated heritage language class might achieve those goals more efficiently.

On the other hand, similarities in the skills sets of the heritage language learner and the second language learner can make a shared classroom possible in cases where the development of a dedicated heritage language track is not feasible. Both types of learners tend to prefer simpler grammatical structures, such as those without subordinate clauses, which require less sentence planning, and they tend to avoid using structures that require the speaker to remember and connect words across distances within a sentence (for example, pronouns or reflexives referring to a previous noun). In tasks designed to test a learner's judgment on the acceptability of a given structure in the language, both heritage speakers and second language learners are reluctant to reject ungrammatical options. Both types of learners share an uncertainty about their own intuitive understanding of the language's grammar and are shaky on what may or may not be permissible. On the lower end of the heritage speaker continuum, the advantage of a good accent may be the only characteristic differentiating the heritage language learner from his or her classroom-educated peers, but even speakers higher on the continuum will have learning objectives in common with traditional students. Both types of students will benefit from more and varied contact with the language, classroom conversational practice, the development of literacy and exposure to literature, the learning of a written register, and discussion of complex grammatical principles. The heritage language learner is certainly a different sort of learner, as the heritage speaker is a different sort of bilingual, but those differences are not necessarily an obstacle to achieving their learning objectives in a shared classroom.

One of the biggest challenges with heritage speakers as language students is conducting an accurate initial assessment for classroom placement. Heritage speakers' strengths often emerge in this context, while the gaps in their linguistic knowledge are less obvious at the beginning of a language course. A good accent and a sprinkling of regional vocabulary, which would indicate a very proficient second language learner are just par for the course with heritage speakers. When the appropriate classroom placement level must be determined for these types of learners, a quick yet reliable method is required that tests differently and more deeply than traditional placement exams. Typically, a placement exam relies on textbook-based language knowledge, which is unsuitable for someone like a heritage language learner who probably has not been exposed to such textbook language. The result is a contradiction – subjecting heritage speakers to a textbook-based assessment results in an unexpectedly low placement level, but on the other hand, heritage speakers are frequently considered for placement into higher-level classrooms due to their accent and access to regional vocabulary. Given the heritage language

learner profile, a three-component testing procedure has been suggested as follows: (i) an oral test, (ii) a short essay, and (iii) a biographic questionnaire (Kagan 2005). Such an examination could potentially be very time consuming, however, as well as impractical for testing speakers whose abilities are on the lower end of the heritage speaker continuum. Methods for a quicker yet still reliable test of both high- and low-level speakers are presently being investigated. A measure of the speech rate of a heritage speaker – i.e. words-per-minute output – has been found to correlate with the deeper grammatical abilities of the speaker, making it a good indicator of overall language level (Kagan and Friedman 2004; Polinsky 2006; 2008a). A simple vocabulary test of about 200 words has been found to be a similarly helpful and easily measurable test of heritage language ability (Polinsky 1997; 2000; 2006). For the purposes of placement in a language class, these tests are extremely useful. Still, once placed in the appropriate classroom, heritage speakers will be best served if researchers are able to establish the nature of heritage languages more precisely. This work depends on developing methods which are capable of testing the bounds of a heritage speaker's language knowledge. In the next section, I will discuss the emergence of new methodologies (as well as the re-evaluation of the existing ones) in heritage language testing and research.

4. Methodological issues

In general, heritage speakers perform reasonably well in the production and comprehension of simple, unitary structures but often show production and comprehension failures at the discourse level (Laleko 2010; Polinsky 1996; 1997; 2006; Polinsky and Kagan 2007). Such differences distinguish heritage language from the language of monolinguals and the language of balanced bilinguals; based on this lack of full attainment (which can arise due to a number of reasons, from attrition to transfer), we cannot consider heritage language speakers to be native speakers.

A common testing method in linguistic research is the so-called "grammaticality judgment task" (GJT), in which the participant is asked to decide whether he finds a given bit of language grammatically acceptable. Such tasks may be fine-grained beyond a simple yes/no option; for instance, one variant of the GJT allows the participant to use a scale from one to five to rate the acceptability of the language sample. In either case, however, heritage speakers are known to be reluctant to form such judgments at all. This kind of task demands some amount of critical thinking about the language, which is a

higher-order awareness that usually develops in the formal education system or with the onset of literacy. Effectively, this kind of language awareness is the opposite of a native speaker's natural intuition about language use. A heritage speaker's sense of his or her heritage language arises from intuition than from a critical understanding of the grammar. Heritage speakers' hesitation to form an opinion about the sample or reject a structure as ungrammatical derives from the foreignness of such a task. They are unused to thinking critically about their heritage language, and their hesitation prevents the GJT from providing an accurate assessment of their sense of the grammar. GJTs have also been criticized as inappropriate for second language learners for the same reasons that they are inadvisable as an evaluation tool for heritage speakers – the anxiety caused by the testing context will prevent the production of results that are representative of the speaker's true language knowledge (McDonald 2006). Our studies have confirmed that heritage speakers, like second language learners, are poorly evaluated by GJTs. This arises from their reluctance to reject or rate forms that are ungrammatical in the baseline; being aware of limitations in their knowledge (remember that, because of the double standard discussed earlier, heritage speakers are constantly being reminded how little they know!), they are therefore unprepared to reject grammatical structures with which they are unfamiliar because they tend to simply assume they are looking at a grammatical form that they have not yet encountered. The ability to rate forms as unacceptable or ungrammatical requires greater metalinguistic awareness, something that heritage speakers can develop in the process of re-learning their home language, but which is not readily available to them just because they were exposed to the heritage language in childhood.

Heritage language speakers consistently show higher performance on GJTs than do early second language learners, though they still make non-native judgments. Many factors seem to influence how heritage speakers perform on GJTs, including use of the language at home (Bylund and Diaz 2012; Bylund et al. 2012; Schmid 2007), the age of acquisition, and the age at which the heritage language was replaced by a new dominant language (Ammerlaan 1996; Hakuta and D'Andrea 1992; Montrul 2008). As mentioned above, one of the typical (although not universal) characteristics exhibited by heritage speakers is low literacy. In fact, some researchers attribute most heritage speakers' deficits to their lack of schooling (Pascual y Cabo and Rothman 2012; Rothman 2007). As GJTs are often presented to subjects visually, one initially promising avenue to explain the comparatively lower performance of heritage speakers versus second language learners on GJTs might be the modality of presentation. Heritage language speakers consistently perform better on aural

perception tasks than on written ones – the exact opposite of the pattern found with second language learners (Montrul et al. 2008). However, despite their comparative advantage on aural tasks, heritage language speakers still provide non-native judgments for a range of phenomena, even when GJTs are administered aurally (e.g. Knightly et al. 2003; Sherkina-Lieber 2011; Sherkina-Lieber et al. 2011), suggesting that while literacy may make written tasks more difficult for heritage language speakers, it does not explain all of their difficulties on the GJT.

If we look more closely at heritage speakers' performance on GJTs, it becomes clear that the pattern of GJT mistakes is skewed in the same principled way as the data from second language learners: the yes-bias. Both heritage and second language learners tend to correctly identify acceptable grammatical structures but are rather reluctant to reject the ungrammatical ones. In a large survey of 70 native and 70 heritage speakers of Russian, Polinsky (2006) elicits grammaticality judgments on binding, gender agreement, gerund control, and irregular verbal morphology. In each of these areas, heritage speakers provided the same non-native pattern of responses, accepting the majority of the grammatical sentences and also many of the ungrammatical ones. For example, in response to the violation of gender agreement (masculine adjective used with a feminine noun; feminine adjective used with a masculine noun), heritage speakers rejected only 32% of the 100 ungrammatical sequences, compared to 97% rejection by native speakers. Common responses to ungrammatical conditions from the heritage speakers included "maybe", "I don't know", etc. (Polinsky 2006).

A similar finding appears in a series of rating tasks targeting the knowledge of the morphological marking in Labrador Inuttitut (Sherkina-Lieber 2011) found that Inuttitut heritage speakers were generally similar to native-speaker controls in accepting grammatical structures but were off-target in rejecting ungrammatical sequences. As she notes, "[t]he most common error for [higher proficiency speakers] was to accept both the grammatical and ungrammatical sentences in a pair" (ibid.: 181). The lowest comprehension group of Inuttitut heritage speakers was able to "detect ungrammaticality only when the most basic properties of Inuttitut grammar were violated" (ibid.: 188).

Several studies have attempted to remedy this hesitancy to reject ungrammatical sentences by replacing binary judgments with rating scales. In a study comparing native speakers, highly proficient (and literate) heritage speakers, and highly proficient second language speakers of Korean, we asked subjects to rate the use of topic and nominative markers on a five-point scale. Included in the test were sentences which represented the appropriate use of the topic

and subject marker, the misuse of the markers (the nominative particle in place of the topic particle and vice versa), and appropriate and inappropriate particle omissions (see Laleko and Polinsky 2013 for the details of the stimuli). With respect to grammatical and marginally acceptable sentences, heritage speakers patterned with native controls; however, heritage language speakers' ratings of ungrammatical stimuli trended significantly higher than those of native speakers ($F(2, 133)=7.31$, $p=0.014$). Even though this study measured acceptability on a five-point scale instead of using a binary decision, heritage speakers were still reluctant to reject inappropriate or ungrammatical data. On both binary and scalar GJTs, heritage language speakers show a similar pattern of over-acceptance.

The tendency for heritage language speakers to rate ungrammatical utterances higher than the native controls may result from a sense of linguistic insecurity. In a GJT comparing judgments of English relative clauses with and without resumptive pronouns, Vishwanath (2013) asked native speakers of English and Hebrew-dominant heritage speakers of English (all age-matched teenagers) to rate sentences such as (1a,b) on a seven-point scale:

(1) a. My uncle has a neighbor [that my cousin helps on weekends].
   b. My uncle has a neighbor [that my cousin helps *her* on weekends].

Although heritage speakers of English generally rated sentences with resumption (1b) lower than (the grammatical) sentences without resumption (1a), they nevertheless rated the resumptive sentences significantly higher than the native controls did. Crucially, proficiency (as measured by speech rate in words-per-minute, WPM) predicted heritage speakers' judgments. Subjects from the high proficiency group (>110 WPM) found sentences like (1b) to be significantly less acceptable than subjects from the low proficiency group (<110 WPM). The ratings by the two groups and by the native speaker controls are shown in Table 1.

In addition to providing grammaticality judgments, Sherkina-Lieber's Innuttiut participants also took part in a task measuring comprehension of tense morphemes, as well as three measures of production fluency (the morphosyntactic diversity measure, and two measures of morphological complexity – mean length of utterance and mean length of words). In striking contrast to their poor performance on the GJT items with tense-related violations, the heritage language speakers performed very similarly to native speakers on the comprehension task, suggesting that they have a native-like representation of tense. Furthermore, heritage speakers' performance on the tense/agreement production metrics did not correlate with their performance on the tense/

agreement GJT (Sherkina-Lieber 2011: Ch. 7). Taken together, the contrast between native-like production and comprehension of tense versus metalinguistic knowledge of tense supports the conclusion that the mistakes on the GJT have an extra-grammatical cause. This, in turn, casts doubt on the applicability of GJTs as a metric of grammatical knowledge for heritage speakers.

Table 1: Sentence rating results, English relative clauses, 1-7 scale (Vishwanath 2013)

	No resumption (1a)	Resumption (1b)
Heritage high proficiency	6.03	5.01
Heritage low proficiency	5.81	5.17
Native controls	5.71	3.4

Direct testing of heritage language knowledge, in the form of comprehension tasks, avoids the complications introduced by unnatural testing situations such as the grammaticality judgment task. A turn towards the use of testing methods designed for other populations with limited language abilities (e.g. child speakers) has been recommended (Polinsky 2006; Potowski et al. 2009), and tasks which test comprehension ability rather than grammatical judgment are proving to be a viable alternative. An example of such a test is the truth-value judgment, in which the participant sees a short story and is asked afterwards to judge whether a sentence is true or false within the context of that story. Sentence-picture matching, in which the participant is asked to match a picture with a sentence that was just heard, has proven to be quite useful as an evaluation tool as well.

Comprehension tasks test the heritage speaker's understanding of their heritage language grammar, but tasks which elicit speech in the heritage language from the heritage speaker are also valuable to the researcher. To look for patterns that merit further investigation, comparisons across large corpora of language samples must be possible. Such language samples can be elicited in a number of ways. Some language samples take the form of narratives, in which the participant tells the story of a short video clip that he has just seen or narrates the story depicted through pictures (Frog Stories, based on Mayer 1967; 1969, are particularly popular because there is already a sizeable body of data elicited from different populations using these pictures – cf. Berman and Slobin 1994; see also Polinsky 2008b, Boon 2014, for the use of Frog Stories in heritage populations). Others methods for sample collection involve the heritage speaker participant directing a native speaker to move figures around on a map (cf. Polinsky 2013).

Once areas of grammatical interest are established from corpora studies, a closer look at any interesting patterns can occur in a controlled lab environment. One area of interest that has emerged relates to the Spanish phenomenon of gender and number agreement. This type of grammatical agreement holds even when elements of a sentence are separated by a distance and when there is another, intervening noun that must be ignored for agreement purposes. For instance, in the following example, the constituent *las cartas* is separated from *escritas*, but the latter still has to agree with it:

(2) Consideró *las carta* en el tablero excelentemente escrita.
     ('I consider the card on the table well written.')

A recent experimental study (Fuchs et al. 2014) has shown that native speakers are sensitive to violations in number agreement and are equally sensitive to violations in gender agreements when the noun is feminine (*la carta*) or masculine (*el libro*). Meanwhile, heritage speakers only notice agreement errors when the noun is feminine; it is as if they ignore the masculine gender. In this regard, they are similar to second language learners of Spanish who also pay greater attention to the feminine and make more errors with masculine nouns (Alarcón 2009; Martinez-Gibson 2011, and references therein). It may be tempting to take this as an indication of similarity between heritage speakers and second language learners, but this would be a misinterpretation. For example, Spanish second language learners have a great deal of trouble learning to use the particle *se*, as in *¿Cómo se llama usted?* and often leave it out, saying *¿Cómo llama usted?* On the contrary, heritage speakers overuse *se* by putting it in contexts where it is absolutely impossible, as in the following example completely ungrammatical in baseline Spanish:

(3) *El conejito *se* vio el lobo
     ('The rabbit saw the wolf.')

Understanding the similarities and differences between native speakers, heritage speakers, and second language learners is a labor-intensive and demanding task, but identifying what these three groups have or do not have in common is important both for linguistic theory and for educational policy.

A research agenda which includes in-depth investigation of heritage language will result in an understanding that goes beyond the anecdotal suggestions of the language teacher and get at the underlying workings of the heritage language grammar. One hopes that efficient classroom methodologies will naturally follow from such an understanding. Recall that heritage speakers grow up surrounded by their baseline language but experience formal instruction in that language rarely, if at all. There is a growing trend in the USA

for heritage speakers to start re-learning their home language in college; for many, this will be their first-ever exposure to literacy in that language. This situation creates significant pedagogical challenges, and in addressing these challenges, it is important to educate both heritage-speakers-turned-learners and their teachers who are used to second language learners, an entirely different population.

Although the language used in the classroom is a dialect of their home language, heritage re-learners are constantly reminded by their instructors of the differences between the way they speak and the way they should be speaking. An emphasis on the standard, or prestige, variety of the language is still prevalent in many heritage classrooms. Consider the following remarks made by a heritage speaker of Spanish who was enrolled in re-learning classes while in high school (interview reported in Leslie 2012: 16-17), "[W]e all got the idea that Spanish was this very formal thing that we learned and that we presented on, but we liked to relax and enjoy ourselves with our friends and speak English". As long as teachers' attitudes to non-standard varieties remain dismissive, heritage language re-learners will continue to be discouraged. We see it as an important mission of our lab to promote more inclusive and positive attitudes among educators and to educate them about the needs of heritage speakers. For example, it is already clear that heritage speakers can benefit from context-based instruction, which emphasizes building on their strengths and guiding them through discovery procedures where the heritage speakers themselves formulate hypotheses about their language, ask their families probing questions, and compare the language variety presented in class and in their textbooks with the language they were exposed to at home.

5. By way of conclusion

The remarks in this paper are intended primarily as a brief commentary on heritage language study, with an emphasis on the American linguistic landscape, which has always been my primary source of observations. I have also examined the intertwined relationship between existing research on heritage languages and educational practices. The researcher's goal is to understand the mental representation of language possessed by heritage speakers; however, to do so, researchers must understand what heritage language speakers do well and where they need improvement – a task that can only be accomplished by working together with language educators to develop suitable

research methodologies. We have shown that some of the existing methodologies, including grammaticality judgments in particular, are not appropriate for use with heritage language populations. Knowing what does not work is only the first step forward; the next goal is to fine-tune those methodologies that work well and to establish effective testing methods for heritage language speakers. Such testing can find immediate application in the classroom where educators can use it to screen their heritage language students and track their progress. An immediate need in the education system is the establishment of a massive database on heritage students' progress in class; acquiring such a database will necessitate the rigorous testing of heritage language re-learners before the class starts, in the middle of the term, and after the semester is over. Such practices are in their infancy, but the tools for carrying them out are available on the *National Heritage Language Resource Center* website where they are awaiting use and perfection.[2]

Let me conclude by stating what may seem obvious – the phenomenon of heritage language is as old as migration itself. If we go back in history, looking at the USA in the days of Benjamin Franklin, German was probably the main heritage language in American communities; in modern times, it is Spanish, and it may well be Iraqi Arabic fifty years from now. The actual composition of heritage languages changes over time; yet the phenomenon does not change, and it is not going to go away. Recognizing heritage language speakers as a powerful presence in our laboratories and classrooms is an important step toward turning heritage speakers into balanced bilinguals.

Eingang des revidierten Manuskripts 31.12.2014

References

Alarcón, Irma (2009), The processing of gender agreement in L1 and L2 Spanish: Evidence from reaction time data. *Hispania* 92, 814-828.

Ammerlaan, Tom (1996), You get a bit wobbly: Exploring bilingual lexical retrieval processes in the context of first language attrition. *Australian studies* 9, 92-102.

---

2 http://web.international.ucla.edu/nhlrc/category/research (31.12.2014). The goal of the tools site at NHLRC is to provide a central location for a collection of references, proficiency assessments, questionnaires, and research tools that may be utilized for assessing or conducting research on heritage speakers'/learners' language skills. The tools have been stored together in one resource site so that researchers, teachers, and program administrators can collectively use and contribute to this site, creating a community that exchanges ideas on current issues involving heritage languages and promotes collaboration and further study of this topic.

Au, Terry & Oh, Janet (2005), Korean as a heritage language. In: Li, Ping (ed.) (2005), *Handbook of East Asian Psycholinguistics, Part III: Korean Psycholinguistics*, Cambridge: CUP, 417-443.

Au, Terry & Romo, Laura (1997), Does childhood language experience help adult learners? In: Chen, Hsuan-chih (ed.) (1997), *The Cognitive Processing of Chinese and Related Asian Languages,* Beijing: Chinese University Press, 417-441.

Baker, Colin & Prys Jones, Sylvia (1998), *Encyclopedia of Bilingualism and Bilingual Education.* Philadelphia: Clevedon Multilingual Matters.

Benmamoun, Elabbas; Montrul, Silvina & Polinsky, Maria (2013), Heritage languages and their speakers: Opportunities and challenges for linguistics. *Theoretical Linguistics* 39, 129-181.

Berman, Ruth & Slobin, Dan Isaac (1994), *Relating events in narrative: A croslinguistic developmental study.* Hillsdale, NJ: Lawrence Erlbaum.

Boon, Erin (2014), *Heritage Welsh: Incomplete acquisition of a minority language*. Ph. D. Dissertation, Harvard University.

Bylund, Emanuel & Díaz, Manuel (2012), The effects of heritage language instruction on first language proficiency: A psycholinguistic perspective. *International Journal of Bilingual Education and Bilingualism* 15, 593-609.

Bylund, Emanuel; Abrahamsson, Niclas & Hyltenstam, Kenneth (2012), Does first language maintenance hamper native-likeness in a second language? *Studies in Second Language Acquisition* 34, 215-241.

Carreira, Maria (2004), Seeking explanatory adequacy: a dual approach to understanding the term 'heritage language learner'. *Heritage Language Journal* 2 (1).

Cummins, James (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.

Dorian, Nancy (1981), *Language death: The life cycle of a Scottish Gaelic dialect.* Philadelphia, PA: University of Pennsylvania Press.

Fishman, Joshua (2001), 300-plus years of heritage language education in the United States. In: Peyton, Joy Kreeft; Ranard, Donald A. & McGinnies, Scott (eds.) (2001), *Heritage Languages in America: Preserving a National Resource,* Washington, D.C.: Delta Systems, and McHenry, IL: Center for Applied Linguistics, 81-98.

Fuchs, Zuzanna; Polinsky, Maria & Scontras, Gregory (2014), *The differential representation of number and gender in Spanish*. Paper presented at the 37th International Meeting of Generative Linguistics of the Old World (GLOW), Brussels.

Hakuta, Kenji & D'Andrea, D. Daniel (1992), Some properties of bilingual maintenance and loss in Mexican background high school students. *Applied Linguistics* 13, 72-99.

Halmari, Helena (1997), *Government and codeswitching: Explaining American Finnish.* Amsterdam: John Benjamins.

Halmari, Helena (1998), Case-assignment and adverbials in Finnish-English bilingual sentences. In *Language Contact, Variation, and Change,* edited by Jussi Niemi, et al. Joensuu, Finland: University of Joensuu, 98-110.

Isurin, Ludmila & Ivanova-Sullivan, Tanya (2008), Lost in between: the case of heritage Russian speakers. *Heritage Language Journal* 6 (1).

Kagan, Olga (2005), In support of a proficiency-based definition of heritage language learners: The case of Russian. *International Journal of Bilingual Education* 8: 213-221.

Kagan, Olga & Friedman, Debra (2004), Using the OPI to place heritage speakers of Russian. *Foreign Language Annals* 36, 536-545.

Kim, Ji-Hye; Montrul, Silvina & Yoon, James (2006), On the logophoric long-distance binding interpretation of the Korean local anaphor 'Caki-casin' by early bilinguals. *Proceedings of the Annual Boston University Conference on Language Development* 30, 305-315.

Knightly, Leah M.; Jun, Sun-Ah; Oh, Janet & Au, Terry K.-F. (2003), Production benefits of childhood overhearing. *The Journal of the Acoustical Society of America* 114, 465.

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

Laleko, Oksana & Polinsky, Maria (2013), Marking topic or marking case? A comparative investigation of Heritage Japanese and Heritage Korean. *Heritage Language Journal*, 10 (2), 40-64.

Leslie, Siena (2012), *The use of linguistics to improve the teaching of heritage language Spanish.* BA Thesis, Harvard University.

Martinez-Gibson, Elizabeth (2011), A comparative study on gender agreement errors in the spoken Spanish of heritage speakers and second language learners. *Porta Linguarium* 15, 177-193.

Mayer, Mercer (1967), *A boy, a dog, and a frog*. New York: Dial Books for Young Readers.

Mayer, Mercer (1969), *Frog, where are you?* New York: Dial Books for Young Readers.

McDonald, Janet L. (2006), Beyond the critical period: Processing-based explanations for poor grammaticality judgment performance by late second language learners. *Journal of Memory and Language* 55, 381-401.

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

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

Montrul, Silvina; Foote, Rebecca & Perpiñán, Silvia (2008), Gender agreement in adult second language learners and Spanish heritage speakers: The effects of age and context of acquisition. *Language Learning* 58, 503-553.

Pascual y Cabo, Diego & Rothman, Jason (2012), The (Il)logical problem of heritage speaker bilingualism and incomplete acquisition. *Applied Linguistics* 33, 450-455.

Peyton, Joy K.; Ranard, Donald A. & McGinnis, Scott (eds.) (2001), *Heritage Languages in America: Preserving a National Resource.* Washington, D.C.: Delta Systems, and McHenry, IL: Center for Applied Linguistics.

Polinsky, Maria (1996), Cross-linguistic parallels in language loss. *Southwestern Journal of Linguistics* 14, 1-44.

Polinsky, Maria (1997), American Russian: Language loss meets language acquisition. In: Brown, Wayles; Dornisch, Ewa; Kondrashova, Natasha & Zec, Draga (eds.) (1997), *Formal Approaches to Slavic Linguistics,* Ann Arbor, MI: Michigan Slavic Publications, 370-407.

Polinsky, Maria (2000), The composite linguistic profile of speakers of Russian in the US. In: Kagan, Olga & Rifkin, Benjamin (eds.) (2000), *The Learning and Teaching of Slavic Languages and Cultures.* Bloomington, IN: Slavica, 437-465.

Polinsky, Maria (2006), Incomplete acquisition: American Russian. *Journal of Slavic Linguistics* 14, 161-219.

Polinsky, Maria (2008a), Gender under incomplete acquisition: Heritage speakers' knowledge of noun categorization. *Heritage Language Journal* 6 (1), 72-104.

Polinsky, Maria (2008b), Heritage language narratives. In: Brinton, Donna; Kagan, Olga & Bauckus, Susan (eds.) (2008), *Heritage Language Education: A New Field Emerging.* New York: Routledge, 149-164.

Polinsky, Maria (2013), When L1 becomes an L3: Do heritage speakers make better L3 learners? *Bilingualism: Language and Cognition*, 1-16, [Online: http://journals.cambridge.org/abstract_S1366728913000667, 4.4.2014].

Polinsky, Maria & Kagan, Olga (2007), Heritage languages: In the 'wild' and in the classroom. *Language and Linguistics Compass* 1, 368-395.

Potowski, Kim; Jegerski, Jill & Morgan-Short, Kara (2009), The effects on instruction on linguistic development in Spanish heritage language speakers. *Language Learning* 59, 537-579.

Rothman, Jason (2007), Heritage speaker competence differences, language change and input type: Inflected infinitives in Heritage Brazilian Portuguese. *International Journal of Bilingualism* 11, 359-389.

Sanchez, Rosaura (1983), *Chicano discourse.* Rowley, MA: Newbury House.

Schmid, Monika (2007), The role of LI use for LI attrition. In: Köpke, Barbara; Schmid, Monika; Keijzer, Merel & Dostert, Susan (eds.) (2007), *Language attrition: Theoretical perspectives*. Amsterdam: John Benjamins, 135-154.

Seliger, Herbert W. & Vago, Robert M. (1991), *First Language Attrition.* Cambridge: Cambridge University Press.

Sherkina-Lieber, Marina (2011), *Comprehension of Labrador Inuttitut functional morphology by receptive bilinguals.* Ph.D. Dissertation, University of Toronto.

Sherkina-Lieber, Marina; Pérez-Leroux, Ana Teresa & Johns, Alana (eds.) (2011), Grammar without speech production: the case of Labrador Inuttitut heritage receptive bilinguals. *Bilingualism: Language and Cognition* 14, 301-317.

Silva-Corvalán, Carmen (1994), *Spanish in Los Angeles.* Oxford: Clarendon Press.

Valdés, Guadalupe (2000), The teaching of heritage languages: an introduction for Slavic-teaching professionals. In: Kagan, Olga & Rifkin, Benjamin (eds.) (2000), *The Learning and Teaching of Slavic Languages and Cultures*. Bloomington, IN: Slavica, 375-404.

Valdés, Guadalupe; González, Sonia V.; López García, Dania & Márquez, Patricio (2008), Heritage languages and ideologies of language: Unexamined challenges. In: Brinton, Donna; Kagan, Olga & Bauckus, Susan (eds.) (2008), *Heritage Language Education: A New Field Emerging*. New York: Routledge, 107-130.

Van Deusen-School, Nelleke (2003), Toward a definition of heritage language: sociopolitical and pedagogical considerations. *Journal of Language, Identity, and Education* 2, 211-230.

Vishwanath, Arun (2013), *Heritage English in Israeli children.* BA Thesis, Harvard University.

Wiley, Terrence (2008), Chinese 'dialect' speakers as heritage language learners: a case study. In: Brinton, Donna; Kagan, Olga & Bauckus, Susan (eds.) (2008), *Heritage Language Education: A New Field Emerging*. New York: Routledge, 91-106.