Past tense morphology of North American Icelandic

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Abstract. The study focuses on the past tense morphology of North American Icelandic to answer the questions of how faithful the past tense construction is to the pre-immigration variety, in what way the speakers deviate from the expected past tense form, and whether they tend to overgeneralize one verb formation over another. The results show that the tense system is still quite robust and that deviations are rare. When deviations do occur, the speakers tend to use another form of the verb from elsewhere in the verbal paradigm, rather than overgeneralizing particular past-tense rules.

Keywords. heritage language; Icelandic; past tense; overgeneralization

1. Introduction. Studies on Icelandic show that at the age of six, Icelandic children have only reached 74% accuracy for the past tense (Ragnarsdóttir 1998). As heritage speakers often undergo a shift in language dominance with the onset of schooling (Montrul 2023), it is likely that speakers of North American Icelandic (NAmIce), a moribund language spoken in North America, had not yet fully acquired the past tense before English took on a prominent role.

The focus of this study is on the past tense morphology of speakers of NAmIce and the research questions are as follows:

1. How accurate is the past tense in NAmIce?
2. In what way do the speakers deviate from the expected morphology?
3. Do they overgeneralize one verb formation over another?

To answer these questions, various data from 81 speakers was analysed and categorized, both based on verbal class and whether the past tense is in line with the expected morphology of an adult Homeland Icelander.

The paper is structured in the following way. §2 provides a background for the study. §3 gives information on the study itself, the data, the speakers and the methodology, and §4 focuses on the results. §5 includes discussions and §6 gives concluding remarks.

2. Background. Icelandic has both strong and weak verbs and the weak verbs are often divided into two groups, based on the past tense ending they take. The most common type is the so-called a-verb, with the past tense ending *-að*, as in (1):[1]

(1) Adam borð-að-i epli.[2]
Adam eat-PST-3SG apple
'Adam ate an apple.'

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[1] People often talk about the past tense ending being *-aði* but the fact is that the *-i* is an inflectional ending, marking that this verb is in the 1st or 3rd person singular. In this paper I talk about the markers of person and number as inflectional endings but the markers of tense as past endings.

[2] The following gloss is used: DET=determiner; INF=infinitive; SG=singular; PL=plural; PRS=present; PST=past.

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The i-verbs are also weak and differ from a-verbs as they lack the *-a-* in the past tense endings, which instead are *-ð/-d/-t*, depending on the stem of the verb. Here *-ð/-d/-t* are allomorphs, and their representation is controlled by phonological rules, see (2).

(2) María ná-ð-i/kenn-d-i/breyt-t-i honum.
María get/teach/change-PST-3SG him.DAT
'María got/taught/changed him.'

The strong verbs do not get a morphological ending in the past tense, but there is a stem-vowel alternation, as in (3):

(3) Karl hl**ey**p-ur/hl**jó**p-.
Karl run-PRS/run-PST-3SG
'Karl runs/ran.'

The final group is mixed verbs which traditionally are preterite-present verbs and *ri*-verbs. However, as there are only four *ri*-verbs and they never occur in our data, and there are only eleven preterite-present verbs, with only a few of them appearing in our data, I'm going to use the term *mixed-verbs* for verbs that get a past tense ending like weak verbs but also stem-vowel alternations as strong verbs; these seem to be more problematic than weak verbs in general, an example is shown in (4).

(4) Þetta s**e**g-ir/s**a**g-ð-i Jón
This say-PRS-3SG/say-PST-3SG Jón
'That's what Jón says/said.'

An overview of the different verb types can be seen in Table 1.

	a-verbs	i-verbs			strong	mixed
		-ð	-d	-t		
infinitive	borð-a	ger-a	ferm-a	kveikj-a	dett-a	segj-a
1p.sg	borð-aði	ger-ði	ferm-di	kveik-ti	datt-	sag-ði

Table 1. An overview of the Icelandic verb types in the past

Homeland Icelandic children tend to overgeneralize the weak past tense endings (particularly *–aði*) which they learn first, so they might say *gleym-**aði*** instead of *gleym-**di*** 'forgot' or *lát-**aði*** instead of *lét* 'put' but when they learn new endings, they may start to overgeneralize those, and say for instance *bless-**ti*** instead of *bless-**aði*** 'bless'. For the children, overgeneralization is by far the most common deviation from the expected past tense morphology (Ragnarsdóttir 1998). As Icelandic children have only reached about 74% fluency in the past tense by the age of six (Ragnarsdóttir 1998), it could be postulated that heritage speakers of NAmIce, who were generally immersed in English when they went to school, may also exhibit a propensity to overgeneralize prevalent morphological endings. But is that the case?

3. The study

3.1. DATA AND SPEAKERS. The data in the study was gathered in three trips to North America in 2013 and 2014 as a part of the project *Heritage Language, Linguistic Change and Cultural Identity* (Arnbjörnsdóttir et al. 2023). The data is based on interviews with 81 second- and third-generation speakers from four provinces of Canada (Manitoba, Saskatchewan, Alberta, and British Columbia)

and two US states (North Dakota and Washington). There were 29 men and 52 women, and the average age was 75.7.

3.2. METHODOLOGY. The data used in this paper is elicited with four different methods. The biggest part is based on semi-structured interviews with the speakers; the interviewer had set questions that he used to get the interview going but then allowed the speaker to take control and talk about whatever s/he wanted. Therefore, the number of utterances differs from person to person; some never use the past tense whereas others utter up to three hundred sentences. This approach was chosen for two main reasons. First, engaging speakers in discussions about past events significantly increases the likelihood of eliciting the use of past tense forms in their speech. This is particularly beneficial for the study of temporal linguistic structures and provides a rich source of naturalistic data for analysis. Second, semi-structured interviews afford speakers considerable control over their discourse. This flexibility allows speakers to navigate around potential linguistic challenges, enabling them to circumlocute sentences they may find problematic. This aspect is crucial in capturing the authentic linguistic strategies employed by speakers in real-time communications, even though it may reduce the number of past tense forms in some ways. While the flexibility inherent in semi-structured interviews may occasionally result in a reduced frequency of past tense usage due to circumlocution, this potential limitation is counterbalanced by the implementation of additional, more controlled data collection methods, such as narrative tasks.

For the narrative elicitation tasks, two distinct stimuli were utilized: Mercer Mayer's (1969) wordless picture book, *Frog, Where Are You?* and the *Pear Film* (Chafe 1980). In the case of the former, participants narrated the story in real-time as they sequentially turned the pages of the book, resulting in only a few past tense sentences. Speakers who viewed the *Pear Film* recounted the story only after watching it in its entirety and the method therefore proved effective in eliciting past tense structures. However, the task of retelling a story presented certain challenges, particularly for older participants who occasionally struggled with recall.

Finally, participants were presented with visual stimuli depicting individuals engaged in various activities.[3] Initially, participants were simply instructed to say what the men on the images were doing. Subsequently, they were asked to recount the depicted events as if they had transpired on the preceding day, trying to force the past tense use. Regrettably, this task was completed by a mere nine participants, thereby yielding a somewhat limited dataset.

The interactions with the speakers were recorded and transcribed and then all past tense examples were divided into verbal categories and analysed. The analysis was predicated on the identification of tense markers that conformed to anticipated morphological patterns, as well as those that deviated from them. Present tense narrations were excluded from the data set to maintain the focus on past tense structures. The application of diverse elicitation methods in this study has significantly bolstered the reliability of the data collected. By employing a combination of semi-structured interviews, visual stimuli narration, and film recounting, it has been possible to gather both targeted and spontaneous linguistic data. This multifaceted approach respects the speaker's communicative autonomy while ensuring alignment with the research objectives.

The primary obstacle encountered during the execution of this project can be traced back to the project's inception in 2013 and subsequent trips in 2014. The initial objective was to experiment with diverse elicitation techniques while gathering data on multifarious facets of the

[3] The test was created by Sigríður Magnúsdóttir and Höskuldur Þráinsson for the purpose of testing people with aphasia, but it has also been used for study of aspect (Jóhannsdóttir 2023).

language although the emphasis was predominantly on specific syntactic and morphological considerations. Regrettably, the aspect of tense was not among those, resulting in the absence of specific assessments targeting past tense usage during the elicitation sessions with the speakers. Instead, it was necessary to rely on past tense sentences produced during the interviews and narrative tasks, which varied from no utterances in the past tense to a high past tense production. Even the verb test was administered first and foremost for the purpose of eliciting aspect and only a few speakers were asked to produce the sentences in the past tense. That was also the case with the *Pear Film* as only the speakers that showed considerable fluency in the language were asked to retell the story. For a broader perspective on the status of past tense morphology of NAmIce speakers, it would be beneficial to administer a task-specific test for the past tense.

4. Results

4.1. RESULTS FROM THE INTERVIEWS AND STORYTELLING TASKS. Overall, the expected past tense form is used in 95.53% of the utterances – so there are very few signs of vulnerability in the tense domain of NAmIce. In fact, about 35% of all the speakers never deviated from the expected past tense, even though it should be kept in mind that some of those speakers only uttered one or two sentences in the past tense. There was however considerable individual variation as some speakers produced high numbers of past tense sentences with the expected past tense morphology, whereas others showed numerous deviations.

We did expect the speakers to perform better with the weak verbs than the strong or the mixed verbs, and that is in fact the case, although there is only a statistically significant difference between the weak verbs and the mixed verbs, which nevertheless had an accuracy rate of 92.1%, compared to 95.7% for the a-verbs where the speakers performed the best.

However, even though the accuracy rate is high, the speakers do deviate from the expected forms and in Table 2 we see in what way, based on the verb-type.

	a-verbs	i-verbs	strong verbs	mixed verbs
Familiar forms	83.3%	11.8%	70.4%	78.3%
Deviated past tense	16.7%	88.2%	29.6%	21.7%

Table 2. Deviations based on verb-types

With the weak a-verbs, the strong verbs, and the mixed verbs, it's most common that the speakers produce other familiar forms, such as the infinitive or the present tense; sometimes it's hard to see which form is being used as the infinitive and the present tense can be homonymous, an in (5):

(5) Þegar þeir kom-a af flugvélinni.
When they come-INF/PRS from airplane.DET
Intended meaning: 'When they came from the airplane.'

There are also cases where the speaker knows the singular form of a verb and uses it for the plural and in very few cases it is the other way around.

This pattern of producing other familiar forms was not as common with i-verbs and instead we see more examples of morphological deviations, predominantly overgeneralization of the weak a-ending, as shown in Table 3.

	a-verbs	i-verbs	strong verbs	mixed verbs
Verbs inflected as weak a-verbs		24%	13%	
No stem-vowel alternation			17%	13%
Another dental suffix than expected		12%		

Table 3. Deviations in the past tense forms

The weak a-verb ending was overgeneralized with i-verbs in 24% of the cases whereas in 12% of the cases the speaker used another dental suffix than expected. Overgeneralizations of one pattern over another are commonly observed in heritage languages and Polinsky (2019) has talked about the emergence of coherent grammar which indicates that while heritage languages may diverge from baseline grammars in various ways, they still form a consistent and rule-governed system. Some of these defining properties include regularity of grammatical paradigms and one unified past tense ending for all weak verbs would not only reflect English grammar but also regularize the tense system.

Other variations were either of a phonological nature, where speakers employed a different dental suffix than anticipated, such as *sen-**t**i* in place of *sen-**d**i* and *skil-**ð**i* instead of *skil-**d**i*, or of a morphological nature, encompassing unexpected morphological endings for number and person, or the absence of a morphological ending altogether. These morphological variations, however, do not appear to follow a systematic pattern, but rather seem to be individual in nature.

More common are however deviations where a stem-vowel alternation is lacking. 17% of strong verb deviations are of that type and 13% of deviations with mixed verbs. In such cases the speaker may use the correct morphological ending, but the stem-vowel is either that of the infinitive, the present tense, or the singular past, when these differ. Vowel change in the stem is a complex process and it is not surprising that it could be problematic for heritage speakers, and Arnbjörnsdóttir (2006: 98) reported on a few such examples in her data from the nineties. However, stem-vowel alternations are quite strong in the language in general, and it is likely that what we have here is both individual variations but possibly also some systemization of the verbal inflection of certain verbs, particularly phonetically and morphologically complex verbs.

One such example is the strong verb *búa* ‘live’. The past tense singular is *bjó/bjóst/bjó* but the plural of the verb is *bjugg-um/-uð/-u*, with the stem-vowel changing from *ó* to *u* but also the appearance of *-gg-* that is not present in any other form of the verb. Out of nine speakers using the verb *búa* in the past tense, four produced the form *bjóum*, or 45%, as in (6):

(6) þá bjó við bjó-um hér.
then live.PST.1SG we live.PST-1PL here
Intended meaning: ‘Then we lived here.’

Another verb where deviations were rather common is the verb *tala* ‘speak’. The singular past has the same stem-vowel as the infinitive: *tala – talaði* but in the plural we have a double umlaut; the *u* of the plural ending changes the second *a* to *u*, which then changes the *a* in the stem to *ö*: ***töl**u**ð**um*. We see different variations of *tala* in the past tense plural, both examples of no umlaut (***tal**a**ð**u*) and an example of a single umlaut (***tal**u**ð**um*). Of 56 instances of the plural form in the past tense there are 30 produced as expected, 10 have a missing umlaut and in 16 examples the speaker uses the infinitive of the verb. With deviations 46% of the cases, *tala* is showing vulnerability.

4.2. THE VERB TEST. When looking at the results from the verb test, we see a slightly different pattern from the interviews and narrative tasks as 57.6% of the pictures were described by using the past progressive rather than the simple past. This higher percentage of the past progressive

might have something to do with the fact that the speakers were looking at pictures – an event frozen in time – although the Homeland Icelanders from Jóhannsdóttir (2023) did not use the progressive in that way. However, Jóhannsdóttir (2011) has shown that the progressive is more common and has a wider use in English than in Icelandic which might influence the increased use of the progressive in NAmIce. Brown & Putnam (2015) also found that the incorporation of elements of English progressive aspect in Pennsylvania Dutch allows stative predicates to appear with progressive aspects which at least used to be considered ungrammatical in English, indicating an extension of the progressive aspect in Pennsylvania Dutch.

When we focus on the verbs conjugated in the past tense, we see quite a different picture from the one in the interviews and storytelling tasks. Of the 38 sentences produced in the past tense, 24 were as to be expected, but 14 sentences deviated from the expected past. This means that the percentage of deviating past tense is much higher than in the interviews and storytelling tasks, or 36.8% of all the past tense sentences. The explanation might lie in the fact that the sentence structure is more forced as the speaker is required to use the past tense of a particular verb, whereas in the other tasks the speakers can simply choose what verb to use. It is therefore possible that this is first and foremost a retrieval issue since the paradigm gaps are more visible when the experiment forces the speakers to use a particular verb, rather than circumlocute, as they can do in the narration tasks.

5. Discussion. Regularizations and simplifications are quite common in heritage languages and Arnbjörnsdóttir (2006: 98) reports on both being noticeable in NAmIce although none of them were extensive in her data. The results presented here show that the tense system in NAmIce is quite robust, even though there are certainly clear signs of individual variations, and we see a few cases where the speakers clearly search for the correct past tense, such as in (7).

(7)	Ah…	við höb…	hab-ð-um	þetta	nýja orð	eplasína
	Ah…	we	have-PST-2PL	this	new word	orange
	‘Ah, we had this new word orange.’					

These results are not surprising as linguists have already shown stability in the domain of verbal inflectional morphology (e.g. Thomason 2001) and Natvig et al. (2023) have explained this stability in terms of exponency of tense for North American Norwegian. With Icelandic and Norwegian being closely related languages, their explanations are likely to apply to NAmIce as well, but that analysis will have to wait.

As previously mentioned, overgeneralization of the past tense-markers is quite rare and deviations from the expected past are more likely to involve other well-known forms of the verbs, such as the infinitive or the present tense. So why do the heritage speakers not overgeneralize more? Are these rules simply not active and instead the speakers have memorized the past tense of the verbs?

In their study on pluralization in NAmIce, Þráinsson et al. (2019), saw signs that not all speakers had a full grasp of the pluralization rules. When asked to pluralize made-up words, they performed similarly to four-year-old Icelanders, but when asked to pluralize actual words, they produced more similarly to an adult Icelander. Without drawing a conclusion, this seems to indicate that the pluralization rules are not fully active in NAmIce and therefore the speakers run into trouble when asked to apply the rules to nonsense words. If the heritage speakers had been asked to put nonsense verbs into the past, we might be able to see if the past tense rules are active, but no such study has been done. However, we can look at the two loan verbs from English that can be found in the data.

(8) a. …þau spen-t-u lots of pening…
they spent-PST-3PL lots of money
'… they spent lots of money…'

b. Þeir- þau vantu-ð-u að fara heim
They.M they.N want-PST-3PL to go home
'They wanted to go home.'

In (8a) the English verb *spend* is used instead of the Icelandic verb *eyða* 'spend'. As Arnbjörnsdóttir (2006: 98) has pointed out, the majority of borrowed verbs in NAmIce are conjugated as a-verbs but here the speaker conjugates *spenda* as an i-verb, where it is treated in the same way as the i-verbs *benda* 'point' and *lenda* 'land' which are *bentu* and *lentu* in the past tense respectively.

In (8b) the speaker uses the verb *vanta* in the meaning 'want to'. However, the Icelandic verb *vanta* means 'need' whereas the word for 'want' is in fact *langa*. This is a common false friend in the language as speakers of NAmIce frequently substitute the verb *langa* with *vanta*. In Icelandic, *vanta* is an oblique verb that not only takes an accusative subject, but the verb form stays the same in all persons and numbers; so, it is always *vantaði* in the past tense, no matter what the subject is. In NAmIce the verb is treated like a regular weak a-verb and gets the appropriate morphological endings of person and number. Because of this the verb in (8b) gets the *u*-ending of the third person plural. This *u*-ending then causes an umlaut in the past tense ending, giving us *-u-ðu*. However, the umlaut stops here and instead of *vöntuðu*, which we would expect based on the *-u* in the past tense morpheme, the verb becomes *vantuðu*. Nevertheless, what really matters here is that by regenerating the verb as a weak a-verb the speaker does in fact apply the appropriate morphology for a-verbs. This innovative use of the verb *vanta* is expanded to have a different form and function than the homeland verb and is therefore not really a continuation of the inherited verb *vanta*. These are surely only two examples but in both, the speakers apply existing past tense rules to the stem of the verb, which may be seen as evidence of a productive verbal tense system.

We have no reasons to suspect that the heritage speakers that deviate from the expected past do so because they do not know the past tense rules, as the high accuracy rate not only shows us that they are in fact familiar with the rules but that they are also quite familiar with the different verb classes. In fact, when the speakers produce unexpected forms of the past tense, the deviations do not usually lie in the morphology of the past tense markers themselves – with the possible exception of some overgeneralization of the weak a-ending – but instead in the phonology or even the morphological endings of number and person.

6. Conclusions. In conclusion, this study provides compelling evidence of the robustness of past tense formation in NAmIce. The high accuracy rate in past tense formation underscores the resilience of the language and while there are individual deviations from the expected past tense forms, these are primarily attributable to challenges with inflectional morphology, such as number and person, or the occasional use of an infinitive or present tense form instead of the past tense. Importantly, the results reveal that speakers have a nuanced understanding of the language's different verb classes and their behaviours, even in the face of occasional errors and contrary to expectations, the speakers do not overly generalize the most common ending. These findings not only shed light on the intricacies of Heritage Icelandic but also contribute to our broader understanding of language preservation and evolution among immigrant communities.

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