# Testing agreement with nominative objects 

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#### Abstract

This paper reports on the results of two large-scale surveys of syntactic variation in Icelandic where number agreement with nominative objects was tested among many other syntactic phenomena. The surveys included altogether 16 sentences with two choices and 15 individual examples relating to number agreement with nominative objects. The surveys had a total of $1486(772+714)$ participants, making them by far the biggest studies of number agreement with nominative objects in Icelandic that have ever been carried out. Both nominative objects in the strict sense (mono-clausal nominatives) were tested as well as high nominatives in infinitival clauses or small clauses (embedded nominatives). Although most speakers allow both agreement and non-agreement with nominative objects, the results show that number agreement is more common with mono-clausal nominatives than embedded nominatives. It is also shown that a dative plural subject between the finite verb and the nominative object in expletive sentences does not have a negative effect on number agreement. Another important result is that number agreement improves if (a) the plural form of the verb is common, or (b) the nominative argument also controls agreement on a predicative adjective. On the other hand, number agreement is degraded if the plural form is very different from the corresponding singular form.


## 1 Introduction

Number agreement with nominative objects in Icelandic has been a lively topic of discussion for the past 15 years or so (see Sigurð̀sson 1990-1991, 1996, Taraldsen 1995, Boeckx 2000, Hrafnbjargarson 2001, Holmberg and Hróarsdóttir 2003, Schütze 2003, Sigurðsson and Holmberg 2008, Bobaljik 2008, Ussery 2009, 2013, to appear, Keine 2010, Árnadóttir and Sigurðsson 2013, and Kucerova 2016). However, with the exception of Ussery (2009), all of these studies have been based on the judgments of a small number of native speakers. In this paper, I will report on the results of a large-scale study of syntactic variation in Icelandic where number agreement with nominative objects was tested among many other phenomena (see Thráinsson et al. 2013). The study was part of the research project, Variation in Icelandic Syntax (2005-2007), led by Höskuldur Thráinsson. The objective was to get an overview of syntactic variation in Icelandic and provide concrete information about particular constructions and spark ideas for future research. I will focus here on the grammatical aspects of number agreement with nominative objects but see Thráinsson et al. (2015) for a discussion of the sociolinguistic aspects. As discussed in more detail below, number agreement with nominative objects is sensitive to a number of factors, in particular the presence or absence of a clause boundary between the finite verb and the nominative object (see below).

Nominative objects are more or less restricted to clauses with a dative subject in Icelandic. Therefore, verbs that take a nominative object will be referred to here as DATNOM verbs. I will use the term nominative object to include not only examples where the nominative argument is a true object within the same clause as the dative subject, as in (1a-b), but also where the nominative is the highest argument of an infinitival clause or a small
clause, as in (1c-d). ${ }^{1}$ When a distinction needs to be made, I will use the terms mono-clausal nominative for the first type and embedded nominative for the second one.
(1)
a. Henni leiðist erfiðisvinna
she.Dat bores physical.work.NOM
'She finds physical work boring.'
b. Sigurði hefori sárnað svona framkoma

Sigurður.DAT had hurt such behaviour.NOM
'Sigurður would have been hurt by such behaviour.'
c. Mér sýnist allur maturinn vera búinn
I.DAT seem all.NOM.MASC the.food.NOM.MASC be finished.NOM.MASC.SG
'It seems to me that all the food has been eaten.'
d. Sumum finnst pessi hugmynd alveg vonlaus some.DAT find this.NOM.FEM idea.NOM.FEM completely hopeless.NOM.FEM.SG 'Some people think that this idea is completely hopeless.'

The syntactic contrast between mono-clausal and embedded nominatives correlates with a semantic difference. Mono-clausal nominatives are arguments of the verb selecting a dative subject (sárna and leiðast in (1a-b)), whereas embedded nominatives are arguments of the main predicate in the infinitival clause or small clause (búinn and vonlaus in (1c-d)). Note also that the embedded clauses in (1c-d) are arguments of the matrix verbs (sýnast and finnast).

The paper is organized as follows. Sections 2 sets the background for the following sections by reviewing some basic facts about the syntactic distribution and behavior of nominative objects in Icelandic. Section 3 presents the results of the afore-mentioned surveys of syntactic variation with respect to agreement with nominative objects. Some remarks about the comparison with previous studies are offered in section 4. Finally, the main points of the paper are summarized in section 5 .

## 2 Background

### 2.1 DAT-NOM verbs

DAT-NOM verbs can be divided into two classes, those that take monoclausal nominatives and those that take embedded nominatives. As shown by the following lists, the first class is much bigger than the second one: ${ }^{2}$

[^0](2) a. Verbs with monoclausal nominatives:
áskotnast 'get (by accident)', batna 'get better', berast 'get', bjóðast 'be invited', blöskra 'be outraged by', bragðast 'taste', falla 'like', fyrirgefast 'be forgiven', fceðast 'be born to', gefast 'be given', gremjast 'be angry at', grceðast 'gain', heppnast 'succeed', hlotnast 'receive', hugkvcemast 'get the idea of', hugnast 'like', lánast 'succeed', leiðast 'be bored', leyfast 'be allowed', liða úr minni 'forget', liðast 'be allowed', lika 'like', laerast 'learn from experience', misheppnast 'fail', mislika 'dislike', mistakast 'fail', ofbjóða 'be outraged', opnast 'open for', sárna 'be offended', sjást yfir 'overlook', svíða 'be hurt by'
b. Verbs with embedded nominatives:
finnast 'find, think', heyrast 'hear, gather', sýnast 'appear', virðast 'seem', pykja 'think, find'

Most of the verbs taking monoclausal nominatives have the middle suffix -st but these verbs form a rather heterogeneous class in many other respects. Thus, they fall into three semantic groups: (a) experiencer verbs (blöskra, leiðast, ofbjóða, sárna etc.), (b) verbs denoting success or failure (heppnast, hugkvcemast, lánast, mistakast etc.), and (c) verbs with recipient subjects (berast, hlotnast, opnast etc.). Moreover, some of the verbs listed in (2a) take nominative objects quite regularly but others do so only rarely.

All the verbs listed in (2b) have the suffix -st, except for bykja, but they differ from one another with respect to the optionality of the dative experiencer, and the possibility of selecting a finite complement clause. As discussed in section 3 below, these factors may influence the acceptability of number agreement with embedded nominatives. The optionality of the dative subject may also affect agreement with mono-clausal nominatives but this was not tested in the variation surveys because they only made use of verbs with an obligatory dative. The relevance of lexical semantics was not tested either as all the verbs taking monoclausal nominatives were experiencer verbs, except for áskotnast 'get (by accident)'.

### 2.2 Agreement

One of the most intriguing facts about DAT-NOM verbs in Icelandic is that the nominative argument may trigger number agreement with the finite verb. Since singular is the default value for number, number agreement can only be detected with plural objects:
a. Mér leiddist/leiddust æfingarnar
I.DAT bored.3SG/3PL the.exercises.NOM
'I was bored by these exercises.'
b. Henni virðist/virðast skilyrðin vera góð
she.DAT seem. $3 \mathrm{SG} / 3 \mathrm{PL}$ the.conditions.NOM.FEM be good.NOM.FEM.PL
'It seems to her that the conditions are good.'

Nominative objects trigger agreement only in number. As is well-known, person agreement is excluded as can be seen in examples where the object is first or second person plural:
a. *Honum leiðumst við öll
he.DAT bore.1PL we.NOM all.NOM
'He finds all of us boring.'
b. ?Honum leiðist við öll
he.DAT bore.3SG we.NOM all.NOM
c. ?Honum leiðast við öll
he.DAT bore.3pl we.NOM all.NOM

As shown in (4a), the finite verb cannot agree in first person with the plural nominative object. Using a third person singular or plural instead is marginally acceptable, as shown in ( $4 \mathrm{~b}-\mathrm{c}$ ). This means that DAT-NOM verbs like leiðast have only two forms in each tense (present and past), one in the singular and another in the plural. These forms will be glossed here as third person singular and third person plural since third person is the default form for person. Note that the plural form has a more limited distribution than the singular form because it only occurs optionally when a nominative object is plural.

Number agreement with a nominative object is usually optional. ${ }^{3}$ However, it is obligatory in various fixed expressions, especially if there is no auxiliary as in (5) below:
a. Mér duttu/*datt allar dauðar lýs úr höfði
I.DAT fell.3PL/3SG all.NOM.FEM.PL dead.NOM.FEM.PL lice.NOM.FEM off head 'I was completely stunned.'
b. Honum stóðu/*stóð ýmsar leiðir til boða
he.DAT stood.3pL/3SG various.NOM.FEM.PL ways.NOM.FEM for offer 'He had various options.'
c. Bess vegna féllust/*féllst peim hreinlega hendur therefore fell.3PL/3sG they.Dat simply hands.NOM 'Therefore, they just gave up.'

Note that number agreement is obligatory in (5c) even though the dative subject intervenes between the finite verb and the nominative object. As discussed further below, the variation surveys did not show any such intervention effects despite claims to the contrary in the literature.

[^1]Variation in number agreement with a nominative object was already found in Old Icelandic. This is exemplified for mono-clausal nominatives in (6) and for embedded nominatives in (7): ${ }^{4}$
(6) a. Honum líkaði stórilla aðgerðir peirra he.DAT liked.3SG very.badly actions.NOM their 'He strongly disliked their actions.'
(Svarfdæla saga, 1794)
b. Báðum konungunum líkuðu pessi andsvör both.DAT kings.DAT liked.3pl these.nOM.NEUT.PL replies.NOM.NEUT 'Both kings liked these replies.'
(Hrólfs saga, 47)
(7)
a. Beim pótti pau tíðindi mikil vera they.DAT thought.3sG these.NOM.NEUT.PL news.NOM.NEUT big.NOM NEUT.PL be 'They thought that this was big news.'
(Fóstbræðra saga, 778)
b. Gretti póttu illar spár hans

Grettir.DAT thought.3pL bad.NOM.FEM.PL predictions.NOM.FEM his 'Grettir thought that his predictions were ominous.'
(Grettis saga, 1003)
Since number agreement has been optional throughout the recorded history of Icelandic, there is no clear sense that either variant is the standard one. My intuition is that number agreement is slightly more formal than no agreement. Thus, it is likely that the participants in the two surveys to be discussed did not have any prescriptive bias towards either of the two options with nominative objects.

## 3 The two surveys of syntactic variation

With respect to nominative objects, the two variation surveys were primarily intended to test if there is any difference between mono-clausal and embedded nominatives. The results show that this is indeed the case. The surveys were also meant to check various other factors that were believed to influence number agreement but had not been properly explored in earlier work, e.g. contrasts between individual verbs or verb forms, or the effects of predicative adjective agreement with a nominative object. As discussed in more detail below, these expectations were borne out.

[^2]
### 3.1 The first survey of syntactic variation

In this survey of 772 native speakers, agreement with nominative objects was tested in 15 written sentences which included two options for the form of the finite verb, singular or plural. The participants were asked to mark the form they liked the best or mark both forms if they found them equally good. Very few selected the last option, or less than $10 \%$ in all cases. Nevertheless, the judgments of native speakers of individual sentences in variation survey 3 strongly indicate that a vast majority of them accept both number agreement as well as no agreement with nominative objects (see further in 3.2 and 3.3 below).

### 3.1.1 Monoclausal nominatives

Table 1 displays the results for agreement with mono-clausal nominatives. The numbers are arranged from highest to lowest percentage for non-agreement. Since the number of speakers who selected both options was very low in all cases, there is generally an inverse relationship between singular and plural, i.e. the higher the singular is, the lower the plural is. ${ }^{5}$

Table 1: No agreement (singular) vs. agreement (plural) with mono-clausal nominatives in survey 1

| Example | Singular | Plural | Both | Verb forms |
| :--- | :--- | :--- | :--- | :--- |
| 13 | $80,1 \%$ | $17,7 \%$ | $2,2 \%$ | hafði - höfðu (leiðst) |
| 17 | $63,6 \%$ | $29,9 \%$ | $6,5 \%$ | líkaði - líkuðu |
| 8 | $62,4 \%$ | $29,9 \%$ | $7,7 \%$ | líkaði - líkuðu |
| 19 | $62,0 \%$ | $31,5 \%$ | $6,5 \%$ | leiddist - leiddust |
| 14 | $58,9 \%$ | $34,6 \%$ | $6,5 \%$ | líkaði - líkuðu |
| 11 | $54,3 \%$ | $40,5 \%$ | $5,2 \%$ | leiddist - leiddust |
| 12 | $48,5 \%$ | $43,3 \%$ | $8,2 \%$ | áskotnaðist - áskotnuðust |

As can be seen from this table, the singular was the favored option in all the examples, although the difference between singular and plural varied significantly between examples. To some extent, the superiority of the singular might be due to the fact that singular was always shown above the plural in the test sentences in the first variation survey. There may also be a bias towards non-agreement when the two options are compared because singular forms of DAT-NOM verbs are clearly more common than plural forms. As discussed in 3.2.1 below, singular and plural are more balanced with mono-clausal nominatives when native speakers judge individual sentences without any comparison between the two forms.

Turning to the actual test sentences in the survey, we can start by looking at the three examples with the verb lika 'like': ${ }^{6}$

[^3](TC1.17) Ef henni líkaði/líkuðu ekki jólagjafirnar
fór hún aod grenja if she.DAT liked.3SG/3PL not the.Christmas.presents.NOM started she to cry 'If she didn't like the Christmas presents, she started to cry.' [63,6\%]
(TC1.8) Honum líkaði/líkuðu myndirnar en var fúll yfir bókunum he.DAT liked.3SG/3pl the.pictures.NOM but was unhappy about the.books 'He liked the pictures but was unhappy about the books.' [62,4\%]
(TC1.14) Ef peim líkaði/líkuðu ekki boltaleikirnir fóru pær í fýlu
if they.DAT liked.3SG/3pl not the.ball.games.NOM went they into bad.mood 'If they didn't like the ball games, they became upset.' [58,9\%]

The score for the singular is very similar in all these examples, presumably because they are grammatically alike in all relevant respects. They all have a dative pronoun before the finite verb, which is followed by the nominative object, with negation in between in (TC1.17) and (TC1.14). There is a contrast, though, in that (TC1.14) has a plural subject, as opposed to a singular subject in (TC1.17) and (TC1.8) (see further in 4.2).

There were three examples with leiðast 'be bored by' in the survey. One of them, (TC1.13), featured a finite auxiliary and it received the highest score for no agreement of all the mono-clausal nominatives: ${ }^{7}$
(TC1.13) Henni hafði/höfou víst leiðst svo fótboltaæfingarnar
she.DAT had. $3 \mathrm{SG} / 3$ PL apparently bored so football.exercises.NOM
'Apparently, she had found football practice so boring.' [80,1\%]
(TC1.19) Hann hafoi gaman af dönsku en honum leiddist/leiddust
he had fun from Danish but he.Dat bored.3sG/3pl
eðlisfræðitímarnir
the.physics.classes.NOM
'He enjoyed Danish but found the physics classes boring.' [62,0\%]
(TC1.11) Leiddist/Leiddust henni ekki tónleikarnir?
bored.3sG/3pl she.DAT not the.concert.NOM.PL
'Didn't she find the concert boring?' [54,3\%]
It seems that the auxiliary hafa 'have' is less likely to show number agreement with a monoclausal nominative than main verbs. A possible explanation is that the plural of hafa is höfðu (in the past tense) which has a different root vowel than the singular form (hafdi). As discussed in 3.1.2 below, similar considerations also apply to the verb finnast 'find, think'. ${ }^{8}$

[^4]Note that the dative subject (henni) between the finite verb and the nominative object in (TC1.11) does not have a negative effect on number agreement. In fact, as shown in Table 1, the score for the plural in (TC1.11) was higher than in (TC1.19) where the dative subject precedes the finite verb. As discussed in 4.3 below, examples with an intervening dative in expletive sentences point to the same conclusion.

The example that received the lowest percentage for singular and the highest for plural was the following sentence with the verb áskotnast 'get (by accident)':
(TC1.12) Honum áskotnaðist/áskotnuðust nýlega skautar sem bróðir hans
he.DAT acquired. $3 \mathrm{SG} / 3 \mathrm{PL}$ lately skates.NOM which brother his
hafði aldrei notað
had never used
'He recently got by a pair of skates that his brother had never used.' [48,5\%]
The high score for plural may be due to the fact that áskotnast has a recipient subject, in contrast to the experiencer verbs lika and leiðast. Thus, Árnadóttir and Sigurðsson (2013) claim that number agreement with a nominative object is more acceptable if the dative is a recipient or a beneficiary (with alternating verbs).

In addition to choosing between two options in the sentences illustrated above, participants in variation survey 1 were asked to evaluate two examples with mono-clausal nominatives, one with number agreement and another with no agreement. These examples are shown below. The numbers in brackets show the percentage of those who accepted each example.
(T1.032) Henni leiddist samt bókmenntatímarnir
she.DAT bored.3SG still the.literature.classes.NOM ( $63,3 \%$ )
(T1.092) Peim leiddust samt kóræfingarnar
they.DAT bored.3pl still the.choir.rehearsals.NOM $(67,5 \%)$
The results here are very different from the results for two choices shown in Table 1 in that the singular and plural are fairly even. Still, this is consistent with the findings in variation survey 3 in that there is a much smaller contrast between singular and plural when native speakers are asked to evaluate individual examples rather than contrast singular with plural.

### 3.1.2 Embedded nominatives

The results for embedded nominatives in variation survey 1 are shown in the following table:

[^5]Table 2: No agreement (singular) vs. agreement (plural) with embedded nominatives in survey 1

| Example | Singular | Plural | Both | Verb forms |
| :--- | :--- | :--- | :--- | :--- |
| 4 | $95,5 \%$ | $3,3 \%$ | $1,3 \%$ | fannst - fundust |
| 21 | $87,0 \%$ | $10,8 \%$ | $2,2 \%$ | fannst - fundust |
| 16 | $86,4 \%$ | $10,7 \%$ | $2,9 \%$ | fannst - fundust |
| 22 | $84,5 \%$ | $11,4 \%$ | $3,1 \%$ | pótti - bóttu |
| 18 | $68,6 \%$ | $25,1 \%$ | $6,3 \%$ | sýndist - sýndust |
| 9 | $63,2 \%$ | $29,5 \%$ | $7,3 \%$ | pótti - póttu |
| 24 | $59,7 \%$ | $36,1 \%$ | $4,2 \%$ | virðist - virðast |
| 6 | $52,1 \%$ | $39,9 \%$ | $8,0 \%$ | virtist - virtust |

The scores for number agreement here are clearly lower than in Table 1, especially in the first four examples in each table. For these examples, the selection rate for number agreement with monoclausal nominatives ranges from $17,7 \%$ to $31,5 \%$ compared to $3,3 \%$ to $11,4 \%$ with embedded nominatives.

As shown in Table 2, number agreement is least acceptable with the past tense of the verb finnast 'find, think'. The examples are shown below:
(TC1.4) Honum fannst/fundust peir gera of mikið úr málinu he.DAT thought. $3 \mathrm{SG} / 3$ PL they.NOM do too much from the.case 'He thought that they overracted to the case' [95,5\%]
(TC1.21) Henni fannst/fundust peir skemmtilegir
she.DAT thought.3SG/3PL they.NOM.MASC amusing.NOM.MASC.PL
'She found them amusing' [87,0\%]
(TC1.16) Henni fannst/fundust pær vera sniðugar
she.DAT thought.3SG/3PL they.NOM.FEM be clever.NOM.FEM.PL
'She thought they were clever' [86,4\%]

The reason for this high score in the singular of finnast may be that the plural form fundust (in the past tense) is very different from the singular fannst as the former is bisyllabic and has a different shape of the root (i.e. fund- vs. fann-). In all the other examples in Table 2, the singular and the plural form have an equal number of syllables in singular and plural.

Both (TC1.21) and (TC1.16) got a higher percentage for plural and lower for singular than (TC1.4). This is probably due to the fact that the former examples contained a predicative adjective agreeing with the embedded nominative. Thus, it appears that if an embedded nominative controls adjective agreement, it is more likely to trigger agreement with the finite verb in the matrix clause. ${ }^{9}$ This effect is also quite evident in the examples with pykja 'think, find':

[^6](TC1.22) Honum pótti/bóttu peir hafa farið yfir strikið
he.DAT thought.3SG/3PL they.NOM have gone over the.limit
'He felt that they had overstepped the limit.' [84,5\%]
\[

$$
\begin{array}{ll}
\text { (TC1.9) } & \text { Henni pótti/póttu samt glæpasögur } \\
& \text { she.DAT thought.3SG/3PL still crime.stories.NOM.FEM most.fun.NOM.FEM.PL } \\
& \text { 'She still found crimes stories to be the most entertaining.' }[63,2 \%]
\end{array}
$$
\]

As shown in Table 2, only 11,4\% of the participants selected plural in (TC1.22), whereas the corresponding figure for (TC1.9) was $29,5 \%$. This contrast is most plausibly explained by the presence of the superlative adjective skemmtilegastar, agreeing with the nominative object glcepasögur in gender, number and case in (TC1.9).

The following two examples with virðast 'seem' were tested in variation survey 1:
(TC1.24) Pað virðist/virðast samt mörgum bessir bílar
there seem. $3 \mathrm{SG} / 3 \mathrm{PL}$ still many.DAT these.NOM.MASC.PL cars.NOM.MASC
vera mjög eftirsóknarverðir
be very attractive.NOM.MASC.PL
'These cars seem to many to be very attractive.' [59,7\%]
(TC1.6) Honum virtist/virtust allar sjónvarpsstöðvarnar vera
he.DAT seemed.3SG/3PL all.NOM.FEM.PL the.TV.stations. NOM.FEM be lélegar
bad.NOM.FEM.PL
'All the TV stations seemed to him to be bad.' [52,1\%]
These examples differ in that the dative subject in (TC1.6) is clause-inital whereas (TC1.24) has a low dative subject between the finite verb and the nominative object. Still, these examples received the highest score for plural (and lowest for singular) of all the embedded nominatives in variation survey 1 . The reason may be that virðast is very often used without a dative experiencer, in which case the nominative argument undergoes raising to the matrix subject position (cf. Allar sjónvarpsstöðvarnar virtust vera lélegar 'All the TV stations seemed to be bad') and triggers number agreement obligatorily. As a result, the plural form of the verb is very frequent and far more common e.g. than the plural form of finnast 'find'.

The survey featured one example with the verb sýnast 'appear'. This example had agreement with a predicative adjective:
(TC1.18) Honum sýndist/sýndust pær frekar djúpar
he.DAT seemed.3sG/3PL they.NOM.FEM rather deep.NOM.FEM.PL
'It seemed to him that they were rather deep.' [68,6\%]
As shown in Table 2, sýnast occupies an intermediate position between finnast and virðast with respect to number agreement. This is expected since sýnast has a minimal difference
between the singular and plural form, unlike finnast, but it is less common than virðast as a raising verb with a nominative subject. I think the same line of reasoning applies to the example with pykja in (TC1.9). Note, however, that the dative experiencer is obligatory with finnast (cf. *Ber fundust vera sniðugar 'They were considered clever'). Arguably, this is another reason why number agreement with finnast is so strongly dispreferred.

### 3.2 The third survey of syntactic variation

In this survey, 714 native speakers were presented with 14 sentences with nominative objects which they were asked to judge as acceptable, dubious or impossible. To make it easier to compare agreement with non-agreement, the test sentences were constructed in pairs where singular contrasted with plural but other known factors were kept constant. The results show that non-agreement is strongly preferred to agreement with embedded nominatives whereas the two options are roughly equal with mono-clausal nominatives. This is different from the results of variation survey 1 where non-agreement dominated agreement in all contexts. Presumably, this difference stems from the fact that the participants in survey 3 were not asked to compare two options. When such a comparison is involved, as in survey 1 , native speakers have a strong bias for non-agreement, which does not seem to match their grammar. Thus, the methodology of survey 3 is probably better suited for the study of agreement with nominative objects.

### 3.2.1 Monoclausal nominatives

The results for the mono-clausal nominatives are shown in the following table. In all the sentence pairs below, the singular is shown before the plural. ${ }^{10}$

Table 3: No agreement (singular) vs. agreement (plural) with mono-clausal nominatives in survey 3

| Example | Yes | $?$ | No | Verb forms |
| :--- | :---: | :---: | :---: | :--- |
| L21 | $63,4 \%$ | $18,8 \%$ | $17,8 \%$ | leiddist - singular |
| L7 | $74,6 \%$ | $15,6 \%$ | $9,8 \%$ | leiddust - plural |
| 21 | $73,2 \%$ | $12,5 \%$ | $14,3 \%$ | hefur (leiðst) - singular |
| 4 | $65,3 \%$ | $16,1 \%$ | $18,6 \%$ | hafa (leiðst) - plural |
| 30 | $41,5 \%$ | $22,2 \%$ | $36,3 \%$ | hefur (blöskrað) - singular |
| 74 | $51,7 \%$ | $22,1 \%$ | $26,2 \%$ | hafa (blöskrað) - plural |

The acceptance rate in all these examples is above $50 \%$, except for (T3.030). This suggests that many speakers freely allow both agreement and non-agreement with mono-clausal nominatives.

The examples with leiðast as the finite verb showed a relatively small difference in favor of the plural:

[^7](L3.21) Henni leiddist samt píanótímarnir alveg rosalega
she.DAT bored.3SG still the.piano.lessons.NOM quite terribly
'Still, she was bored to death by the piano lessons.' [63,4\%]
(L3.7) Henni leiddust tónleikarnir mjög mikið she.DAT bored.3PL the.concert.NOM.PL very much 'She was really bored by the concert.' [74,6\%]

With the addition of the auxiliary hafa 'have' the facts are reversed. The singular is a little higher than the plural:
(T3.021) Honum hefur alltaf leiðst langir stjórnarfundir
he.DAT have.3SG always bored long.NOM.MASC.PL board.meetings.NOM.MASC
'He has always found long board meetings boring.' [73,2\%]
(T3.004) Henni hafa alltaf leiðst langar bíómyndir
she.DAT have.3pl always bored long.NOM.FEM.PL movies.NOM.FEM
'She has always found long movies boring.' [65,3\%]

The examples with blöskra 'be outraged' featured a low dative subject between the finite verb and the nominative object:
(T3.030) bað hefur sumum blöskrað pessir samningar
there have.3sG some.DAT outraged these.NOM.MASC.PL contracts.NOM.MASC
'Some people have been outraged by these contracts.' [41,5\%]
(T3.074) bað hafa mörgum blöskrað pessi ummæli
there have.3PL many.DAT outraged these.NOM.NEUT.PL remarks.NOM.NEUT
'Many people have been outraged by these remarks.' [51,7\%]

The acceptance rate for the agreement in (T3.074) is higher than for the non-agreement in (T3.030) despite the low dative subject in both examples (see 4.3 below). I think that the acceptability of both examples is reduced by the fact that the expletive sentences are often rejected in judgment tasks but the problem is more acute in (T3.030) because the quantifier sumir 'some' is less natural as a low subject than margir 'many'. This is probably because sumir only has a presuppositional reading, i.e. it can only denote some members of a specific group whereas margir is ambiguous between an existential reading (a high number) and a presuppositional reading (many from a specific group).

The participants in variation survey 3 were asked to compare singular and plural in the following example:
(TC3.10) Honum sárnaði/sárnuðu pessar athugasemdir
he.DAT hurt.3SG/3PL these.NOM.FEM.PL comments.NOM.FEM.PL
'He was hurt by these comments.'

The singular was selected by $67,7 \%$, the plural by $28,4 \%$ and both options by $3,9 \%$ of the participants. These numbers are very similar to the numbers in Table 1, as one would expect since they stem from same methodology.

### 3.2.2 Embedded nominatives

The results for the embedded nominatives in survey 3 are illustrated in the following table. As in Table 3, the singular is ordered before the plural in all the sentence pairs.

| Table 4: | No agreement (singular) | vs. agreement (plural) with embedded nominatives in |  |  |
| :--- | :---: | :---: | :---: | :--- |
| survey 3 |  |  |  |  |
| Example | Yes | $?$ | No | Verb forms |
| 69 | $89,0 \%$ | $6,1 \%$ | $4,9 \%$ | fannst - singular |
| 57 | $43,0 \%$ | $17,3 \%$ | $39,7 \%$ | fundust - plural |
| 16 | $82,7 \%$ | $7,5 \%$ | $9,8 \%$ | hefur (fundist) - singular |
| 85 | $63,3 \%$ | $14,8 \%$ | $21,9 \%$ | hafa (fundist) - plural |
| 112 | $81,7 \%$ | $9,5 \%$ | $8,8 \%$ | sýnist - singular |
| 100 | $48,7 \%$ | $17,6 \%$ | $33,7 \%$ | sýnast - plural |
| 35 | $52,4 \%$ | $24,5 \%$ | $23,1 \%$ | heyrðist - singular |
| 47 | $61,6 \%$ | $19,7 \%$ | $18,7 \%$ | sýndust - plural |

As in variation survey 1, number agreement is generally less acceptable with embedded nominatives than mono-clausal nominatives. Thus, in contrast to the mono-clausal nominatives shown in Table 3, the singular has a much higher acceptance rate than the plural in the first three sentence pairs. In the last pair, the plural outscores the unexpectedly low singular (see further below).

Just as in the first variation survey, the biggest difference between singular and plural is with the past tense of finnast:
(T3.069) Henni fannst pær mjög skemmtilegar she.DAT thought.3SG they.NOM.FEM very joyful.NOM.FEM.PL 'She thought that they were a lot of fun.' [89,0\%]
(T3.057) Henni fundust pær frekar leiðinlegar
she.DAT thought.3PL they.NOM.FEM rather boring.NOM.FEM.PL
'She thought that they were rather boring.' [43,0\%]
Adding the auxiliary hafa 'have' to examples with finnast makes number agreement more acceptable than in (T3.057), presumably because the plural of hafa (in third person present tense) is a very common inflectional form:
(T3.016) Beim hefur alltaf fundist spurningabættir skemmtilegir they.DAT have.3SG always found quiz.shows.NOM.MASC fun.NOM.MASC.PL 'They have always found quiz shows to be entertaining.' [82,7\%]
(T3.085) beim hafa alltaf fundist óvissuferðir skemmtilegar they.DAT have.3PL always found surprise.trips.NOM.FEM fun.NOM.FEM.PL 'They have always found surprise trips to be entertaining.' [63,3\%]

With the verb sýnast, there is a very clear difference between singular and plural, although it is smaller than with finnast:
(T3.112) Mér sýnist starfsmennirnir hafa staðið sig vel I.DAT seem.3SG the.workers.NOM have performed well 'It seems to me that the staff has done a great job.' [81,7\%]
(T3.100) Mér sýnast nemendurnir hafa rétt fyrir sér I.DAT seem.3pL the.students.NOM have right for themselves 'It seems to me that the students are right.' [48,7\%]

As discussed in 3.1.2, the verb form fundust (of finnast) has the lowest score for plural agreement because it is quite different from the corresponding singular (fannst) and also because finnast is never used as a raising verb with a nominative subject. These two factors separate finnast very clearly from sýnast. Thus, the relatively small difference between the plural in (T3.100) and (T3.057) is probably due to the fact that the embedded nominative in the latter example controls agreement on a predicative adjective. As shown by the contrast between (TC1.22) and (TC1.9) in Table 2, this has a positive effect on the acceptability of number agreement with an embedded nominative.

The highest score for number agreement was in (T3.047), which is contrasted here with (T3.035) below due to the syntactic similarity between the two examples even though two different verbs are involved:
(T3.035) Henni heyrðist vera gangtruflanir í bílnum
she.DAT heard. 3 SG be startup.problems.NOM in the.car
'She thought she heard that the car had startup problems.' [52,4\%]
(T3.047) Honum sýndust vera jeppaslóðir í snjónum
he.DAT seemed.3pl be jeep.tracks.nOM in the.snow
'It seemed to him that there were jeep tracks in the snow.' [61,6\%]
The acceptance rate for (T3.035) is very low compared to other examples of non-agreement in Table 4. I suspect that some of the participants in the survey had difficulty imagining a scenario where they would be able to utter (T3.035), since it is usually fairly clear if a car has startup problems.

The difference between (T3.047) and (T3.100) is interesting but it may relate to the fact that the former example describes visual evidence but the latter does not. Thus, it would be more natural in (T3.100) to use a finite complement clause (Mér sýnist ad nemendurnir hafi rétt fyrir sér 'It seems to me that the students are right') instead of an infinitival clause.

### 3.3 Individual speakers

Although the main objective of the variation surveys was to get an overview of syntactic variation in Icelandic, the data collected on individual speakers can be inspected to check if they fall into different classes with respect to number agreement with nominative objects. Data from variation survey 3 indicate that an overwhelming majority of speakers accepts both agreement and non-agreement. Of all the participants in survey 3, only three never accept number agreement with a nominative object and only nine never accept non-agreement. These numbers suggest that most native speakers have intra-speakers variation between agreement and non-agreement with nominative objects. This is unsurprising as intra-speaker variation is clearly the norm with morphosyntactic variation in Icelandic as well as in Faroese (Jónsson and Eythórsson 2005, Thráinsson 2013). Still, native speakers differ in how much they prefer agreement or non-agreement with nominative objects.

The same picture emerges if speakers who exhibit uniformity in the test sentences they accept are examined. A total of 52 speakers in variation survey 3 accepted all examples with number agreement; despite this, half of them selected singular rather than plural in example (TC3.10). On the other hand, 91 speakers accepted all the examples with non-agreement but none of them rejected all the plurals. Of those 91 speakers, 69 choose singular in (TC3.10), 16 picked plural and 6 selected both options.

## 4 Comparison with other studies

The data discussed in 3.3 above indicate that very few native speakers have obligatory number agreement with nominative objects or do not allow it at all. This is at odds with the results of Sigurðsson and Holmberg (2008) who claim that speakers of one variety of Icelandic ("dialect C") generally disallow agreement with a nominative object, although they admit that their classification is something of an idealization. Inevitably, this discrepancy raises the question how our results compare to the results of other studies of agreement with nominative objects in Icelandic. As discussed in more detail below, it turns out that the results do not always match.

This section divides into three subsections, each of which focuses on one grammatical factor that in other studies has been argued to affect number agreement with a nominative object. Note, however, that these factors need not be very strong since they are often claimed to hold only for some native speakers.

### 4.1 Singular vs. plural datives

Ussery (to appear) maintains that number agreement with a nominative object is degraded for some speakers if the dative subject is singular. ${ }^{11}$ The variation surveys include only one sentence pair or triplet with number agreement where a plural subject can be contrasted with a singular subject within the same survey, i.e. (TC1.14) vs. (TC1.8) or (TC1.17) (see Table 1).

[^8]As shown in Table 1, the number agreement in (TC1.14) with a dative plural subject got a slightly higher score than the number agreement in (TC1.8) and (TC1.17), hosting a dative singular subject. On the other hand, the preferences are reversed if (T1.092) and (L3.7) are compared. Both examples feature the past plural of leiðast 'be bored' agreeing with a nominative object but they differ in that the former has a plural subject whereas the latter has a singular subject. Still, the acceptance rate for (T1.092) is $67,5 \%$ but $74,6 \%$ for (L3.7). It should also be noted that examples with a plural subject in the variation surveys do not stand out in comparison to examples with a singular subject. Hence, number of the dative subject does not seem to a factor for number agreement between the finite verb and a nominative object to judge by the data we have examined.

### 4.2 Mono-clausal vs. embedded nominatives

Ussery (2009) is the best study for comparison concerning the contrast between mono-clausal and embedded nominatives. This study was based on a test administered to 61 students at the University of Iceland who were asked to examine various examples with nominative objects and select the form of the finite verb they would most likely use in everyday speech. The most interesting result of Ussery (2009) is that seven speakers accept number agreement with mono-clausal nominatives but not with embedded nominatives but no speaker allows agreement only with embedded nominatives. Thus, there seems to be a dialect of Icelandic where number agreement is only acceptable with mono-clausal nominatives.

The results from the variation surveys 1 and 3 show that number agreement is more common with mono-clausal nominatives than embedded nominatives. Hence, the existence of such a dialect should not be surprising. In fact, data from individual speakers in variation survey 3 show that 24 participants reject all the examples of number agreement with embedded nominatives but accept at least one example of number agreement with a monoclausal nominative. In other words, these speakers reject examples (T3.057), (T3.085), (T3.100), and (T3.047) (see Table 4) but accept at least one of the following examples: (L3.7), (T3.004), and (T3.074) (see Table 3). These speakers are only 3,4\% of the 714 participants in survey 3 but they can still be characterized as allowing number agreement with mono-clausal nominatives exclusively. Note that only three participants in this survey exhibit the opposite pattern, i.e. reject all the examples of number agreement with a mono-clausal nominative but accept at least one example of number agreement with an embedded nominative.

### 4.3 Dative intervention in expletive sentences

Holmberg and Hróarsdóttir (2003) claim that number agreement with a nominative object is blocked by a low dative subject coming between the finite verb and the nominative object in expletive sentences, provided the dative is singular. This is shown by the contrast between (8a) and (8b) (from Sigurðsson and Holmberg 2008:256-257):
a. Einum málfræðingi líkaði/líkuðu pessar hugmyndir one.DAT linguist.DAT liked.3SG/3PL these.NOM ideas.NOM 'One linguist liked these ideas.'
b. Pað líkaði/*líkuðu einum málfræðingi pessar hugmyndir there liked.3sG/3pL one.DAt linguist.DAT these.NOM ideas.NOM

In contrast to Holmberg and Hróarsdóttir (2003), Sigurðsson and Holmberg (2008) and Ussery (2009) do not make a crucial distinction between singular and plural datives with respect to these intervention effects although they do not argue explicitly against it.

The variation surveys included two examples of number agreement in the presence of a dative plural intervening between the finite verb and the nominative object in expletive sentences. The first example, (TC1.24), scored the second highest selection rate for agreement of all the embedded nominatives in survey 1 (see Table 2). The other example, (T3.074), received the lowest acceptance rate for agreement among mono-clausal nominatives in survey 3 (see Table 3). However, as discussed in 3.2.1, this is not due to number agreement since the comparable expletive sentence in (T3.030) got an even lower acceptance rate than (T3.074), even though it had no agreement. Hence, the conclusion is that the variation surveys provide no evidence for dative intervention effects, at least with plural datives.

## 5 Conclusion

This paper has discussed the results of two surveys of syntactic variation in Icelandic where number agreement with nominative objects was tested along with many other syntactic phenomena. The surveys contained altogether 16 sentences with two choices and 15 individual examples relating to number agreement with nominative objects. A total of 1486 $(772+714)$ speakers participated in the surveys and this makes them by far the biggest studies of number agreement with nominative objects in Icelandic that have ever been undertaken.

The results show that number agreement is more widely accepted with mono-clausal nominatives than embedded nominatives. There is even some evidence for a dialect where number agreement is restricted to mono-clausal nominatives. Still, it is clear that a vast majority of native speakers of Icelandic allow both agreement and non-agreement in their grammar. It was also shown that a dative plural between the finite verb and a nominative object in expletive sentences does not have a negative effect on number agrement. In addition to the contrast between mono-clausal and embedded nominatives, a number of factors seem to play a role in number agreement with nominative objects in Icelandic. Thus, agreement is more likely to be accepted if (a) the plural form of the verb is common (e.g. because it occurs in raising structures with a nominative subject), or (b) the nominative also controls agreement on a predicative adjective. On the other hand, number agreement is dispreferred if the plural form of the finite verb is very different from the corresponding singular form. I think that all of these results are important but further studies are required to firmly establish the relevance of the various factors discussed here and to determine if they are a matter of grammar or language use.

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[^0]:    ${ }^{1}$ Embedded nominatives seem to behave like subjects of the embedded clause but objects of the matrix clause, an ambiguity reflected by the fact this construction is sometimes referred to as Subject-to-Object Raising.
    ${ }^{2}$ One could add to these lists a small class of verbs where either the dative or the nominative argument can be the subject. For a recent discussion of such alternating verbs, see Barðdal, Eythórsson, and Dewey (2014).

[^1]:    ${ }^{3}$ This is true of active sentences. Agreement with a nominative object is obligatory in passives but this was not tested in the syntactic variation surveys.

[^2]:    ${ }^{4}$ The page numbers in these examples refer to the editions of these texts that are listed in the bibliography.

[^3]:    ${ }^{5}$ The example numbers given in this paper correspond to the actual numbers of the test sentences in the two variation surveys.
    ${ }^{6} \mathrm{TC} 1$ is an abbreviation for examples with two choices in the first variation survey. For convenience, the percentage of speakers that selected the singular form of the finite verb is given in square brackets (here and elsewhere).

[^4]:    ${ }^{7}$ Note that tónleikar 'concert' is a plural word in Icelandic as shown by the glosses in (TC1.11).
    ${ }^{8}$ There is another fact about hafa that should work in the opposite direction and make number agreement more acceptable, the fact that the plural form of this verb is very common (see discussion on example (T3.085)). The

[^5]:    numbers for (TC1.13) suggest that this factor is rather weak in the past tense of hafa, which is clearly less common that the plural of the present tense.

[^6]:    ${ }^{9}$ The presence or absence of vera 'be' makes no difference here as the figures for (TC1.21) (without vera) and (TC1.16) (with vera) are virtually the same. Thus, there is no contrast here between infinitival clauses and small clauses. Note also that adjective agreement is obligatory in these examples.

[^7]:    ${ }^{10} \mathrm{~L}$ is an abbreviation for listening, i.e. examples that were played on tape to the participants.

[^8]:    ${ }^{11}$ Holmberg and Hróarsdóttir (2003) make a weaker claim as they restrict this number effect to datives in expletive sentences (see 4.3 below).

