

# Weight effects and Heavy NP Shift in Icelandic and Faroese

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## Abstract

This paper presents the results of two surveys on Heavy NP Shift in Icelandic and Faroese, where speakers evaluated sentences with shifted subjects and direct objects. The NPs were all shifted across a VP-modifying PP and the length of the NP and the PP was controlled. The results show that Heavy NP Shift with both subjects and direct objects is acceptable to most Icelandic speakers and to some Faroese speakers, although Faroese speakers clearly prefer shifted objects to subjects. The survey also revealed that different factors contribute to how speakers of these two languages evaluate sentences with shifted arguments. For Icelandic speakers it is important that the NP is relatively heavier than the PP it shifts across, whereas Faroese speakers do not seem to be sensitive to this factor. Also, a number of speakers of both languages accept shifted NPs that cannot be considered long and are even relatively shorter than the PP. This tells us that for some speakers it is perfectly acceptable to shift NPs that would generally not be considered heavy at all.

## 1. Introduction

In traditional English word order a direct object NP tends to immediately follow the verb, as demonstrated in example (1a). Most English speakers would readily accept the sentence in (1a), whereas few would accept the word order in (1b), in which the VP-modifying PP immediately follows the verb and the direct object NP is at the rightmost end of the clause.

- (1) a. Mary read [the book] [to the children]<sup>1</sup>.  
b. \*Mary read [to the children] [the book].

Icelandic word order is similar in this respect. The word order in (2a) is the most natural for Icelandic speakers, whereas the word order in (2b) might be considered unusual and is not acceptable to most speakers.

- (2) a. María las [bókina] [fyrir börnin].  
María read the book to the children  
'María read the book to the children.'  
b. ?María las [fyrir börnin] [bókina].  
María read to the children the book  
'María read to the children the book.'

Although the direct object typically precedes a VP-modifying PP in English and Icelandic, as in (1a) and (2a), most speakers would find examples (3b) and (4b) a lot better than (2b).

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<sup>1</sup> For the sake of convenience the XPs that are relevant to discussion will be marked with square brackets.

- (3) a. *María las [bókina um Línu Langsokk og sjóræningjana] [fyrir börnin].*  
*María read the book about Pippi Longstockings and pirates to the children*  
 ‘*María read the book about Pippi Longstocking and the pirates to the children*’.
- b. *María las [fyrir börnin] [bókina um Línu Langsokk og sjóræningjana].*  
*María read to the children the book about Pippi Longstockings and the pirates*  
 ‘*María read to the children the book about Pippi Longstocking and the pirates*’.
- (4) a. *Mary read [the book about Pippi Longstockings and the pirates] [to the children].*  
 b. *Mary read [to the children] [the book about Pippi Longstockings and the pirates].*

Normally this would be explained by saying that the NP in sentences (3b) and (4b) has undergone Heavy NP Shift (henceforth HNPS) (see Kimball 1973 and much later work), which has been described as a movement of “heavy” NPs to the rightmost position of the clause.

But what is it that makes an NP heavy? Is it the amount of words it consists of or its syntactic complexity? Is it the amount of syllables it contains or perhaps its informational value? And is it just the absolute weight of the NP itself that matters or does the weight of the word string it moves over, in this case the PP [to the children], matter as well? Although we have seen that similar factors apply to HNPS in Icelandic and English, it has been claimed that HNPS only occurs in certain languages and that the conditions for HNPS in different languages are not always the same. It is generally believed that HNPS only applies to direct objects in English, whereas in Icelandic, HNPS has been claimed to also work with subjects and even indirect objects<sup>2</sup> (Rögvaldsson 1982, Thráinsson 2007).

Faroese is very closely related to Icelandic but the literature does not agree whether it allows HNPS with both direct objects and subjects (Barnes 1992, Vikner 1995, Holmberg and Platzack 1995). If HNPS is only possible in some languages, does it then create a categorical difference between languages? And why does HNPS not apply to NPs with the same grammatical roles, e.g. subjects and direct objects, in all languages HNPS occurs in? Is there a particular factor, such as length, complexity or relative “heaviness”, that facilitates HNPS in all languages, or is it the case that some languages do not allow HNPS at all, even if the relevant NP is really heavy?

The study described in this article is only a fragment of a larger work in progress and will not answer all of these questions. This article looks at HNPS in two languages, Modern Icelandic and Faroese, and presents the results from two large-scale acceptability surveys where speakers evaluated sentences with shifted subjects and objects and the length of the NP and PP was controlled. The results show that most Icelandic speakers and some Faroese speakers accept sentences with HNPS, whether the NP is a subject or a direct object, although Faroese speakers clearly prefer shifted objects to subjects. They also show that different factors contribute to how speakers of these two languages evaluate sentences of this kind. For Icelandic speakers it is important that the NP is relatively heavier than the PP it shifts across, whereas Faroese speakers do not seem to be sensitive to this factor. It seems that what matters

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<sup>2</sup> A pilot study conducted for this project indicated that Icelandic speakers rarely accept or produce sentences with shifted indirect objects. This is a matter that has yet to be thoroughly studied so the question of HNPS with indirect objects will not be addressed in this article.

most to Faroese speakers is that the NP is long. Also, a number of speakers of both languages accept shifted NPs that cannot be considered long and are even relatively shorter than the PP. This means that for some speakers it is perfectly acceptable to shift NPs that are generally not considered to be heavy. This article will not answer the question whether HNPS behaves in the same way in all languages but a comparison between these two particular languages is very interesting nonetheless because of how closely related they are and because the literature does not agree on how HNPS works in Faroese.

The article is laid out as follows: In section 2 I give a brief overview of the literature on heaviness and HNPS. In section 3 I introduce the literature on HNPS in Icelandic and Faroese. In section 4 I describe an acceptability experiment conducted in March-April 2017 on HNPS and weight effects in Icelandic and Faroese. Section 5 presents the results from the two surveys and in section 6, I give some concluding remarks.

## 2. Weight effects and Heavy NP Shift

HNPS and the notion of “heaviness” has been defined in different ways over the years. Ross (1967:51-56) referred to HNPS as “Complex NP Shift”, describing it as a rule that allows complex NPs to move to the end of a sentence, as in (5c). Ross described sentence (5b) as ungrammatical and attributed its ungrammaticality to the lack of the NP’s [the fire] complexity.

- (5) a. He attributed [the fire] [to a short circuit].  
 b. \*He attributed [to a short circuit] [the fire].  
 c. He attributed [to a short circuit] [the fire which destroyed most of my factory].

Ross used the same definition as Chomsky (1955/1975) who, when explaining the position of objects in particle constructions, in examples (6a-d), claimed that it is “apparently not the length in words of the object that determines the naturalness of the transformation, but, rather, in some sense, its complexity.”

- (6) a. They brought in [all the leaders of the riot].  
 b. They brought [all the leaders of the riot] in.  
 c. They brought in [the man I saw].  
 d. ?They brought [the man I saw] in.

Chomsky claimed that the sentence in example (6b) was somehow more “natural” than the sentence in (6d) on the basis that the NP [the man I saw], although shorter than [all the leaders of the riot] is more complex. Both Ross and Chomsky used the notion of “complexity” without offering any definition of how this complexity is measured, e.g. whether the NP needs to include a subordinate clause to be considered complex. Another issue, as Wasow and Arnold (2005) thoroughly discussed and criticised, is that when Chomsky and others deemed a sentence such as (5b) as ungrammatical, they based this judgment solely on their own intuition, which they expect their readers and other native speakers to share with them. The

issue with this approach is that it assumes that all speakers have the same language intuition and perceive the grammar of their language the same way. Studies on variation in grammar have shown the opposite: the grammar of different speakers varies and what one speaker finds perfectly grammatical, another speaker finds completely unacceptable (e.g. Thráinsson et al. (eds.) 2013, 2015 and references cited there).

If the NP in the example Ross uses in (5c) is “more complex” than the NP in (5b) because it contains a subordinate clause, it is still by no means obvious from this example that complexity is the appropriate measure of heaviness, as the NP is also considerably longer than the NP in (5a,b). If the sentence in example (5c) is better than the one in (5b), then it is impossible to determine whether that is because the NP is long or complex, or for any other reason. The only way to demonstrate that one factor is more important than the other is by comparing NPs of equal length but of different complexity. Wasow and Arnold (2005) conducted a corpus study on verb-particle constructions and Dative Alternation. They found that although all complex direct object NPs occurred after the particle in the verb-particle construction, the behaviour of the complex NPs was still predictable by length alone. They found that almost all NPs longer than four words were found following the particle and that almost no NPs shorter than five words are complex.

Zec and Inkelas’ (1990:376-377) syntax-prosodic approach claimed that HNPS was for the benefit of prosodic structure and that in order for an NP to be dislocated it needs to form an Intonational Phrase (IP) that contains at least two phonological phrases<sup>3</sup> as shown in (7b). Their claim was that the heavy NP shifts because it creates better prosodic structure than leaving the NP in situ. According to their definition the example in (7a) is unacceptable because the NP forms only one phonological phrase (marked with  $\phi$ ) and not an IP.

- (7) a. \*Mark showed to John [some letters] $\phi$ .  
 b. Mark showed to John ([[some letters] $\phi$  [from Paris] $\phi$ )]<sub>IP</sub>.

The NP in (7b) may consist of two phonological phrases but obviously it also consists of four words. Although Zec and Inkelas describe HNPS as a prosodic shift, rather than a syntactic one, their analysis is still focused on the length of the NP and a minimal quantity of elements that it includes. This is the same issue as with Ross’s example: it proposes a certain factor as the measure of heaviness but it fails to clearly distinguish one factor from another.

One common definition of heaviness is that it is measured in the number of words that the NP contains (e.g. Kimball 1973). The issue with that definition is that it is difficult to define how many words an NP needs to contain in order to be considered heavy. A number of researchers have suggested that for HNPS it is not only the length of the NP that is important, but also the length of other material in the verb phrase. Based on the results from a small text corpus analysis, Hawkins (1994) suggested that NPs rarely shift across a PP unless they exceed the PP by at least four words. Wasow (1997) and Wasow and Arnold (2005) reported similar results from corpus analyses and acceptability tests. Stallings and MacDonald (2011)

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<sup>3</sup> A phonological phrase is a constituent in the prosodic hierarchy that generally corresponds to an XP in syntax. (see Selkirk 2011 and references cited there).

performed production experiments with HNPS and found that speakers were much more likely to shift the NP if it exceeded the PP in length by at least five words. They found that as the difference between the length of the NP and the PP increased, shifting rates also increased and that when there was no difference between the two, shifting almost never occurred.

### 3. Heavy NP Shift in Icelandic and Faroese

Holmberg and Platzack (1995) described variation between Mainland Scandinavian languages (MSc), Danish, Norwegian and Swedish, and Insular Scandinavian languages (ISc), Icelandic and Faroese. They claimed that in ISc it is possible to shift subjects with HNPS, whereas it isn't possible in MSc due to the lack of morphological case in MSc. It is generally considered in the literature that Icelandic allows HNPS in sentences with subject-NPs and direct-object-NPs. (Rögnvaldsson 1982, Thráinsson 2007), as demonstrated in (8b) and (9c):

- (8) a. *Ég bakaði [brauð með ólífum og sólþurrkuðum tómötum] [í gær].*  
 I baked bread with olives and sundried tomatoes yesterday  
 'I baked bread with olives and sundried tomatoes yesterday'
- b. *Ég bakaði [í gær] [brauð með ólífum og sólþurrkuðum tómötum].*  
 I baked yesterday bread with olives and sundried tomatoes  
 'I baked yesterday bread with olives and sundried tomatoes'
- (9) a. *[Þúsundir erlendra ferðamanna] koma [til Reykjavíkur] árlega.*  
 Thousands foreign travelers come to Reykjavik annually  
 'Thousands of foreign travelers come to Reykjavik annually.'
- b. *Árlega koma [þúsundir erlendra ferðamanna] [til Reykjavíkur].*  
 Annually come thousands foreign travelers to Reykjavik  
 'Annually come thousands of foreign travelers to Reykjavik'
- c. *Árlega koma [til Reykjavíkur] [þúsundir erlendra ferðamanna].*  
 Annually come to Reykjavik thousands foreign travelers  
 'Annually come to Reykjavik thousands of foreign travelers'

Vikner (1995:201) claimed that HNPS cannot work in sentences with subject-NPs in Faroese (see also Barnes 1992:26-27) and he used the following example to support that claim:

- (10) ...\**at tað hevur etið [hetta súreplið] [onkur drongur frá Danmark].*  
 that there has eaten this apple some boy from Denmark  
 '...that there has eaten this apple some boy from Denmark'

This one sentence can hardly demonstrate anything about HNPS in Faroese because the sentence might be considered unacceptable for other reasons. This sentence has both a transitive expletive and a direct object and the literature agrees that sentences with this structure are rarely accepted by speakers (see Thráinsson et al. 2012:240-241). Thráinsson et

al. (2012:240-241) claimed that in order for most speakers to accept sentences with subjects at the rightmost end of the clause, the subject must be “very heavy”, as demonstrated in (11b):

- (11) a. Í fjør komu [nakrir málfrøðingar úr Íslandi] [til Havnar].  
 Last year came some linguists from Iceland to Torshavn  
 ‘Last year came some linguists from Iceland to Torshavn’  
 b. Í fjør komu [til Havnar] [nakrir málfrøðingar úr Íslandi].  
 Last year came to Torshavn some linguists from Iceland  
 ‘Last year came to Torshavn some linguists from Iceland’

Thráinsson et al. did not offer an explanation of what makes an NP heavy or even “very heavy”, although presumably they were referring to the amount of words the NP contains.

One of the main goals of the study presented here is to see whether one particular factor, namely relative weight, affects the way speakers of Icelandic and Faroese evaluate sentences with HNPS and whether that factor is more important than the length of the NP alone. The other main goal is to see whether HNPS is possible in both languages with subjects and direct objects. These questions were addressed by asking a large number of speakers to evaluate sentences with HNPS across a PP where the NPs were either subjects or direct objects and the weight of the NP and the PP were controlled. By testing a large number of speakers we can hopefully see which factors are important for HNPS for most speakers of these particular languages and compare the results. What is equally important is to find out whether these factors affect all speakers the same way and whether all speakers accept HNPS at all.

#### 4. The study

In this section I describe two acceptability surveys that were conducted in March and April 2017. The surveys tested similar or identical sentences with HNPS, one for Icelandic speakers and one for Faroese speakers. The goal of the survey was to test whether speakers of these languages would accept sentences with HNPS where the NPs have different grammatical roles, i.e. subjects and direct objects. The Faroese speakers evaluated 28 sentences and the Icelandic speakers evaluated 34. All of the test sentences included an NP that had been shifted with HNPS over a verb-modifying PP. None of the sentences had an expletive and the sentences with subject-NPs did not include an object. In both surveys the sentences were constructed according to a formula where the length of the NP and the PP was controlled. The NPs were all constructed in a similar way so that they included a noun, adjectives and/or a PP. I decided to use only the length of each phrase in the amount of words it contains as a measure of heaviness so as to avoid the question of syntactic “complexity”. Hence, none of the sentences included subordinate clauses<sup>4</sup>. The following model was used to control the length of the phrases in the test sentences:

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<sup>4</sup> As mentioned above, Wasow and Arnold (2005) have already addressed the issue of complexity vs. amount of words so I decided not to include it at this stage of the project.

- (1) a. NP: 6 words, PP: 2 words  
 b. NP: 2 words, PP: 6 words  
 c. NP: 6 words, PP: 6 words  
 d. NP: 2 words, PP: 2 words

This model was chosen to test the effects of relative weight between phrases in sentences with HNPS using ‘length in amount of words’ as the measure of heaviness. If the heaviness of an NP is measured by the amount of words it contains, it would seem reasonable to assume that a six-word NP is heavy and a two-word NP is not. Not only the amount of words per phrase was controlled but also the amount of syllables per word and per phrase, e.g. if the phrase consisted of six words, it could only have twelve syllables in it altogether and each word could consist of maximum three syllables. The same rules applied for two-word phrases, which could altogether consist of only four syllables. Heavy consonant clusters were also avoided. This was done in order to make the syllables maximally similar in structure (syllables with a complex onset or coda might be intrinsically more heavy than simple CV-syllables).

In the sentences that had a length difference between the two phrases, the difference was always four words. According to Hawkins (1994), as mentioned above, NPs do not tend to shift unless they exceed the nearest word string in length by at least four words. It would be expected then that the sentence in (12a), where the NP consists of six words and the PP is only two words, would be the optimal example for HNPS out of the test sentences, whereas sentence in (12b), where the length difference is the other way around, should be the least likely to occur. One would then expect more speakers to accept sentence (12a) than (12b).

- (12) a. Sigríður les [á morgnana] [ýmiss konar nýleg tímarit um tísku].  
 Sigríður reads in the mornings various recent magazines about fashion  
 ‘Sigríður reads in the mornings various recent magazines about fashion.’  
 b. Í fyrra fóru [á spennandi námskeið um vistvæna hugsun][nokkrir nemar].  
 Last year went to exciting course about ecological thinking some students  
 ‘Last year went to an exciting course on ecological thinking some students.’

The question is then how speakers evaluate sentences that have equally long NPs and PPs, such as the ones in examples (13a,b). There is no obvious reason for speakers to reject the sentence in (13a), where the NP and PP each consists of six words, but it is interesting to see whether speakers evaluate them equally well as the sentence in (12a).<sup>5</sup>

- (13) a. Listmálarinn málaði [á gamla veggi í úthverfum bæjarins]  
 the artist painted on old walls in suburbs town  
 [stórar og fallegar myndir af tunglinu].  
 large and beautiful pictures of the moon.

<sup>5</sup> Another question is whether speakers are likely to actually produce sentences such as (13a), should they accept them in written form. That question will not be addressed in this article, however.

‘The artist painted on old walls in the town’s suburbs large and beautiful pictures of the moon.’

b. Ég geymi [fyrir börnin] [nokkrar kökur].

I keep for the children some cakes

‘I’ll keep for the children some cakes.’

By all accounts, speakers should not readily accept the sentence in (13b). Here the NP itself is only two words and the PP it moves over is equally long. If the results are consistent with the literature (e.g. Stallings & McDonald 2011, Hawkins 1994, Wasow 1997, Zec & Inkelas 1990) then the sentence in (13b) is not optimal for HNPS and should be rejected by most speakers.

The test sentences were presented in a randomized order that was different for each participant, interspersed with filler sentences. The filler sentences were mixed so that a few of them were sentences that should, by all accounts, be accepted by most speakers and a few of them should be rejected by most speakers. A large portion of the filler sentences were “decoy” test sentences, so they had grammatical structures that are known to only be acceptable to some speakers. There were three times as many filler sentences as there were test sentences, so for every ten test sentences there were thirty filler sentences. This was done in the hope of distracting the participants from the pattern of sentences that was actually being tested.

The surveys were conducted online where speakers were asked to read sentences and evaluate them based on their own language intuition. They were asked not to judge the sentences according to what they had been taught is “good” or “bad” language but to base their judgement on how they think they use language themselves. The speakers were given three options to choose from as they rated the sentences.

- (2) Yes = This sentence is perfectly grammatical. I would use a sentence like this.  
 ? = This sentence is questionable. I would probably not use a sentence like this.  
 No = This sentence is ungrammatical. I would not use a sentence like this.

443 speakers participated in the Icelandic survey and 107 speakers participated in the Faroese survey. The speakers were asked about their gender; female, male or other, and their age, which was categorized into four age groups: younger than 18, 18-30, 31-50 and older than 50.<sup>6</sup>

## 5. The results

In this section I describe the results from the two surveys. Section 5.1. presents the results from the Icelandic survey and section 5.2. presents the results from the Faroese survey. The acceptance rates for the test sentences are presented in tables. Each table is split into two sections: one for shifted subjects and one for direct objects. The columns display the

<sup>6</sup> There is no obvious reason to believe that speakers’ acceptance of sentences with HNPS varies between age groups and gender but that remains to be tested.



percentage of speakers that rated the sentences fully acceptable, not acceptable at all or questionable. The highest percentage in each row is displayed in bold.

### 5.1. The Icelandic results

Table 1 presents the acceptance rates for sentences with equally long two-word NPs and two-word PPs by 443 speakers.

*Table 1. Acceptance rates for sentences with two-word NPs and two-word PPs.*

<b>Subject PP 2 NP 2</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
a. Í sumar koma [á námskeiðið] [margir krakkar].	15%	<b>60,6%</b>	24,4%
b. Seinast mættu [á bjórkvöldið] [þrír nemendur].	36,6%	<b>38,2%</b>	25,1%
c. Um síðustu helgi flaug [til Marokkó] [gamall vinur].	17,5%	<b>62,9%</b>	19,6%
<b>Direct Object PP 2 NP 2</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
d. Ég geymi [fyrir börnin] [nokkrar kökur].	36,4%	<b>41,9%</b>	21,7%
e. Mamma keypti [handa Sigga] [nýjar buxur].	34,6%	<b>46,3%</b>	19,1%
f. Ólafur skrifaði [í gær] [nokkur bréf].	36,4%	<b>39,2%</b>	24,4%

The first thing that's obvious in Table 1 is that all the test sentences were rejected by the majority of the speakers. On closer inspection, for some of the sentences, the ratings are relatively evenly distributed, showing great variation in speakers' acceptance. That can at least be said about sentences (1b,f) where the number of speakers that deemed these sentences completely ungrammatical is almost equal to the ones who thought they were fully acceptable, and the ratings for sentences (1d,e) are also not that far apart. The most distinctive difference in the distribution of ratings is for sentences (1a,c) which were rejected by over sixty percent of all participants and more speakers found them questionable than fully acceptable.

There is variation in acceptance between sentences with shifted subjects and direct objects. The two sentences that were rejected by the most speakers and accepted by the fewest both have subject NPs so, based on these results alone, one could say that speakers in general prefer shifted direct objects to subjects. But this raises the question of why so many more accept sentence (1b) and much fewer reject it. The sentences are all constructed in the same way and sentences (1a) and (1b) are very close to being a minimal pair.

The anticipated result for these sentences was that the majority of speakers would reject them, so it's interesting to see the variation between speakers. The options that participants were given are not a scale of seven where speakers can rate the sentences "a little bit acceptable" or "a little less acceptable". They are very clear, which means that a large percentage of speakers finds the sentences in Table 1 ungrammatical and would never use them, and an almost equally large percentage (for some of the sentences at least) finds them perfectly grammatical.

The distribution of ratings for the sentences with six-word NPs and six-word PPs was quite a bit different, as we see in Table 2.

Table 2. Acceptance rates for sentences with six-word NPs and six-word PPs.

<b>Subject PP 6 NP 6</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
a. Árlega fara [til heitra suðlæggra landa í Evrópu] [sjö til átta hundruð íslenskir ferðamenn].	25,4%	20%	<b>54,6%</b>
b. Í fyrra leituðu [til félags íslenskra nema í útlöndum] [um sjötíu nemendur úr fimmtán skólum].	<b>57,9%</b>	22,2%	19,9%
c. Í síðustu viku mættu [á opna fundinn fyrir unga höfunda] [bæði virkir nemendur og starfandi skáld].	<b>52,6%</b>	10,7%	36,7%
<b>Direct Object PP 6 NP 6</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
d. Ég eldaði [fyrir nokkra góða vini úr vinnunni] [heilt læri með fallegum rauðum paprikum].	26,3%	31,6%	<b>42,1%</b>
e. Foreldraráð keypti [fyrir alla krakkana í tíunda bekk] [margar dýrar bækur og nýjar spjaldtölvur].	21,1%	21,2%	<b>57,6%</b>
f. Listmálarinn málaði [á gamla vegg í úthverfum bæjarins] [stórar og fallegar myndir af tunglinu].	<b>63,2%</b>	10,5%	26,3%

The acceptance rates for these sentences are quite scattered. More than half of the participants found sentences (2b,c,f) fully acceptable and a group of a similar size found sentences (2a,d,e) questionable. There is no obvious reason these sentences should get such mixed remarks but it is clear that none of them is completely rejected by more than just over 30% of speakers. The consistency in the ratings is found in the rejection column, which means that the vast majority of speakers do not find sentences of this kind ungrammatical.

One possible explanation for why so many speakers find sentences (2a,d,e) is that the construction of the phrases themselves is less successful than in the other sentences. Perhaps the speakers thought it was odd to see so many adjectives and perhaps they disliked some words in these sentences in particular, although none of the comments speakers left suggested that. Two of the three sentences that were most widely accepted have subject NPs and the rest of the sentences had a similar acceptance rate. This throws the idea that Icelandic speakers prefer shifted direct objects to subjects out the window as the responses seem a lot more random and the speakers' preference might stem from different factors. This is confirmed by the results presented in Table 3 where we see the acceptance rates for sentences with six-word NPs and two-word PPs.

Table 3. Acceptance rates for sentences with six-word NPs and two-word PPs.

<b>Subject vs Direct Object PP 2 NP 6</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
a. Um helgina keppa [á mótinu] [ungir iðkendur frá Ármanni og Gróttu].	<b>70,4%</b>	7,5%	22,1%
b. Í fyrra komu [til bæjarins] [nokkrir litlir leikhópar frá öðrum löndum].	<b>63,7%</b>	10,5%	25,8%
c. Venjulega mæta [á fundina] [nokkur hundruð ungar konur úr hverfinu].	<b>72,2%</b>	1,5%	26,3%

<b>Direct Object PP 2 NP 6</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
d. Sigríður les [á morgnana] [ýmiss konar nýleg tímarit um tísku].	<b>73,8%</b>	10,2%	15,9%
e. Við skoðuðum [á safninu] [fágætar gamlar styttur úr hvítum steini].	<b>62,6%</b>	9,2%	28,2%
f. Þjófarnir stálu [frá Ólöfu] [gömlum fallegum úrum og dýru skarti].	<b>67,4%</b>	10,5%	22,1%

All the sentences with two-word PPs and six-word NPs were accepted by the majority of the speakers and none of them were completely rejected by more than just over ten per cent. The numbers are very consistent, particularly for the speakers that found the sentences completely grammatical. Two of the direct object sentences and one of the subject sentences were rated slightly lower than the other sentences, but the lowest rating was still only about 11% lower than the sentence with the highest rating, which also happened to be a sentence with a direct-object-NP. The rejection rates are also consistently low as no sentence was deemed completely ungrammatical by more than just over 10%. A slightly higher percentage of the informants found the sentences questionable which, again, means that although they do not fully accept the sentences as grammatical, they also do not find them completely ungrammatical. The results from the last category of sentences, where the PP consists of six words and the NP consist only of two words were not quite as consistent, as we can see in Table 4.

*Table 4. Acceptance rates for sentences with two-word NPs and six-word PPs.*

<b>Subject vs Direct Object PP 6 NP 2</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
a. Á vorin synda [á litlu tjörninni í gamla miðbænum] [hvítir svanir].	26,3%	<b>46,8%</b>	26,8%
b. Á laugardaginn mættu [á árlega samkomu kvenna í listum] [margar konur].	5,5%	<b>61,4%</b>	33,1%
c. Í fyrra fóru [á spennandi námskeið um vistvæna hugsun] [nokkrir nemar].	0%	<b>64,2%</b>	35,8%
<b>Direct Object PP 6 NP 2</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
d. Siggí eldaði [fyrir nokkra gamla vini úr skólanum] [þykkar steikur].	10,5%	41,8%	<b>47,7%</b>
e. Ólöf keypti [handa öllum fjórum litlu frænkum sínum] [fallega skó].	28,6%	34,6%	<b>36,8%</b>
f. Ég las [fyrir síðasta próf í sögu Evrópu] [margar bækur].	10,5%	<b>52,6%</b>	36,9%

The results from this category were actually quite surprising. The anticipated result was that most speakers would completely reject these sentences and although the majority of the sentences was not found fully grammatical by most speakers, they were accepted to higher degree than was expected. Sentences (4b,c,d,f) were found fully grammatical by very few speakers, in fact no speaker thought sentence (4c) was acceptable. Sentences (4a,e) however had a much higher rating and were actually found fully grammatical by almost 30% of the

participants. Although most of the highest numbers fall into the “ungrammatical” column, a surprisingly high percentage of speakers marked the sentences as questionable, not rejecting them completely.

## 5.2. The Faroese results

In this section I describe the results from the Faroese survey where I tested similar sentences. Table 5 presents how 107 Faroese speakers responded to sentences with two-word NPs and two-word PPs. Most speakers completely rejected these sentences but there is a clear difference in how speakers reacted to sentences with subject-NPs and direct-object-NPs. Almost all speakers found sentences (5a,b) completely ungrammatical and very few rated them grammatical or questionable, whereas sentences (5c,d) got a more positive response and were rejected by fewer speakers. These results are similar to the ones the Icelandic speakers gave, as we saw in Table 1, but it is clear that far more Faroese speakers find sentences of this kind unacceptable.

*Table 5. Acceptance rates for sentences with two-word NPs and two-word PPs.*

<b>Subject PP 2 NP 2</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
a. Seinasta vikuskiftið flugu [til Danmarkar] [gamlir vinir].	0,9	<b>92,5</b>	6,6
b. Í summar fara [til Svøríkis] [nógvir dreingir].	4,7	<b>86,8</b>	8,5
<b>Direct Object PP 2 NP 2</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
c. Anna keypti [á útsølu] [nýggjar buksur].	17	<b>62,3</b>	20,8
d. Eg fjaldi [fyri Beintu] [nakrar kakur].	15,1	<b>68,9</b>	16

In table 6 we see acceptance rates for sentences with six-word NPs and six-word PPs. Here the rates are spread out a bit more evenly. Most of the highest numbers are in the “ungrammatical” column but they are considerably lower than the ones in Table 5 and far more speakers found the sentences questionable or perfectly acceptable. Again the Faroese speakers show a clear preference for sentences with shifted direct objects, which, in this case, the Icelandic speakers did not. It is interesting to see that the percentage of speakers that accepted sentences (6d,e,f) is quite similar to the percentage of speakers that completely reject them. Compared to the way the Icelandic speakers responded to sentences of this kind, like we saw in Table 2, the responses from the Faroese speakers were much more consistent.

*Table 6. Acceptance rates for sentences with six-word NPs and six-word PPs.*

<b>Subject PP 6 NP 6</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
a. Í fjør komu [á almenna ráðstevnu um nýggja tøkni] [umleið hálvfjerðs næmingar úr fimtan skúlum].	17,9	<b>52,8</b>	29,2
b. Í seinastu viku komu [á almennan fund fyri ungar høvundar] [bæði virknir limir og framfús listafólk].	30,2	<b>39,6</b>	30,2
c. Hvørt ár flúgva [til sólríkar strendur í heitu londunum] [átta til níggju túsund íslensk ferðafólk].	16	<b>63,2</b>	20,8

<b>Direct Object PP 6 NP 6</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
d. Eg borðreiddi [fyri nøkrum góðum vinum úr skúlanum] [ræstan fisk við saltaðum spiki afturvið].	35,8	<b>46,2</b>	17,9
e. Foreldrini lósu [fyri øllum næmingum í fjórða flokki] [bókina um Hannibal og horvna hundin].	<b>45,3</b>	35,8	18,9
f. Listakonan málaði [á gamlar veggir í Tórshavnar kommunu] [stórar og vakrar málningar av mánanum].	25,5	<b>49,1</b>	25,5

The results in Table 6 are surprisingly similar to the ones in Table 7. Here we see the acceptance rates for sentences with six-word NPs and two-word PPs. The Icelandic speakers rated sentences of this kind quite a bit higher than any of the other test sentences, as we saw in Table 3, and all of the sentences in Table 3 were accepted by the majority of the speakers and none of them were completely rejected by more than just over 10%. Those results strongly indicated that relative weight affects the way Icelandic speakers react to HNPS. The Faroese speakers do not seem to be so affected by this particular factor. One could point out that two of the subject-sentences in Table 7 (7a,c) were accepted by almost 30% of the speakers, whereas only one of the subject-sentences in Table 6 (6b) had a comparable rate, but that is weak ground for claiming an overall effect of relative weight. The acceptance rate in Table 7 for sentences with direct objects is still visibly higher than the rate for sentences with subject-NPs.

*Table 7. Acceptance rates for sentences with six-word NPs and two-word PPs.*

<b>Subject PP 2 NP 6</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
a. Vanliga renna [um summarið] [nakrar hundrað ungar kvinnur í Havnini].	27,4	<b>58,5</b>	14,2
b. Um vikuskiftið spæla [í dystinum] [ung ítróttafólk úr Víkingi og TB].	10,4	<b>63,2</b>	26,4
c. Í fjør komu [til Havnar] [nakrir kendir listamenn úr øðrum londum].	27,4	<b>45,3</b>	27,4
<b>Direct Object PP 2 NP 6</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
d. Beinta lesur [um morgnarnar] [øll mógulig stuttlig tíðarrit um móta].	<b>47,2</b>	39,6	13,2
e. Vit sóu [á savninum] [avbera nógvar myndir av gomlum kirkjum].	30,2	<b>40,6</b>	29,2
f. Tjóvarnir stjólu [úr handlinum] [átta gomul lummaur og fyra armbond].	38,7	<b>41,5</b>	19,8

Finally, Table 8 presents the acceptance rates for sentences with two-word NPs and six-word PPs. The majority of the speakers found these sentences ungrammatical but clearly there are some speakers of Faroese that fully accept sentences of this kind. There isn't a significant difference between the acceptance rate for subject- and direct-object-sentences but considerably fewer speakers found the sentences with direct objects completely

ungrammatical, compared to the subject-sentences. More speakers marked them questionable, meaning that although they do not fully accept them, they also do not completely reject them.

*Table 8. Acceptance rates for sentences with two-word NPs and six-word PPs.*

<b>Subject PP 6 NP 2</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
a. Í gjár voru [á spennandi skeiði um færoyska mentan] [nógvir danir].	5,7	<b>86,8</b>	7,5
b. Um várið svimja [á lítlu tjörnini í gamla miðbýnum] [hvítir svanir].	14,2	<b>70,8</b>	15,1
c. Leygardagin voru [á fundi um umstøður teirra lesandi] [tjúgu mannfólk].	10,4	<b>80,2</b>	9,4
<b>Direct Object PP 6 NP 2</b>	<b>Yes</b>	<b>No</b>	<b>?</b>
d. Turið keypti [í lítla nýggja handlinum í miðbýnum] [nýggjar skógvar].	12,3	<b>66</b>	21,7
e. Eg las [til seinastu royndina í donskum máli] [nógvar bækur].	15,1	<b>66</b>	18,9
f. Jógvan stjól [frá einum góðum gomlum íslenskum vini] [nógvan pening].	17,9	<b>56,6</b>	25,5

## 6. Conclusion

The results from the two surveys are quite different in a few aspects. One of the main questions of this article was whether HNPS applies to subjects and direct objects in both Icelandic and Faroese and whether HNPS works equally well with NPs that have these different grammatical roles in both languages. It is clear from these results that HNPS works with both subjects and direct objects in both languages but the importance of these grammatical roles is not the same for both languages. The results from the Icelandic survey show that most speakers accept sentences with shifted subjects and direct objects, and the grammatical role of the shifted NP does not seem to affect their judgement. The results were quite different from the Faroese speakers, as they showed a clear preference for sentences with shifted direct objects over subjects in every category.

The second main question of this article was whether relative weight plays a role in Icelandic and/or Faroese. The Icelandic speakers preferred sentences where the PP was relatively shorter than the NP, whereas this factor did not have any noticeable impact on the way the Faroese speakers rated comparable sentences. These results suggest that for Icelandic speakers it is important that the NP is relatively longer than the PP it shifts over but for Faroese speakers, it is more important that the shifted NP is long. What is also interesting is that there were a number of speakers of both languages that accepted sentences with short NPs, that were shifted over either a longer PP or an equally long PP. That tells us that for some speakers, the NP doesn't need to be longer than the PP or even to be long at all in order for it to shift.

When we say that HNPS works in a particular language, like Icelandic or Faroese, we're really just saying that it works for some speakers of that language. What one speaker

finds perfectly acceptable, another speaker finds completely ungrammatical. That makes it impossible for one speaker to draw conclusions about a language's grammar based on his own intuition, as the next speaker's grammar might be completely different. If one was to talk to one or two Faroese speakers and ask them to evaluate the sentences that were tested in this study, their answers might not tell us anything about Faroese in general, contrary to what has often been assumed in the literature. Of course there might be other factors that affect the weight of an NP than the amount of words or syllables it contains and that is an issue that needs to be further investigated but that will be reserved for future research.

## References

- Barnes, M. (1992). Faroese syntax—achievements, goals and problems. *The Nordic languages and modern linguistics* 7, 17-37.
- Chomsky, N. (1955/1975). *The Logical Structure of Linguistic Theory*, University of Chicago Press, Chicago.
- Hawkins, J. A. (1994). *A performance theory of order and constituency*. Cambridge University Press, Cambridge.
- Holmberg, A., and Platzack C. (1995). *The Role of Inflection in Scandinavian Syntax*. Oxford University Press, Oxford.
- Kimball, J. (1973). Seven principles of surface structure parsing in natural language. *Cognition* 2, 15–47.
- Ross, J. R. (1967). *Constraints on variables in syntax*. Unpublished PhD Dissertation, MIT.
- Rögnvaldsson, E. (1982). *Um orðaröð og færslur í íslensku*. MA-thesis. University of Iceland, Reykjavík.
- Selkirk, E. (2011). *The Syntax-Phonology Interface*. *The Handbook of Phonological Theory*, 2nd edition, John Goldsmith, Jason Riggle and Alan Yu, eds. Blackwell Publishing, Oxford.
- Stallings, L. M., & MacDonald, M. C. (2011). It's not just the "heavy NP": relative phrase length modulates the production of heavy-NP shift. *Journal of Psycholinguistic Research* 40:177-187.
- Thráinsson, H. (2007). *The syntax of Icelandic*. Cambridge University Press, Cambridge.
- Thráinsson, H., Petersen, H. P., Jacobsen, J. í Lon & Hansen, Z. S. (2012). *Faroese: An overview and reference grammar*. Fróðskapur / Málvísindastofnun Háskóla Íslands, Tórshavn / Reykjavík.
- Thráinsson et al. (eds.) (2013) *Tilbrigði í íslenskri setningagerð I. Markmið, aðferðir og efniviður* [Variation in Icelandic syntax, vol. I. Purpose, methods and materials.]. Editors Höskuldur Thráinsson, Ásgrímur Angantýsson, Einar Freyr Sigurðsson. Málvísindastofnun Háskóla Íslands, Reykjavík.
- Thráinsson et al. (eds.) *Tilbrigði í íslenskri setningagerð II. Helstu niðurstöður. Tölfræðilegt yfirlit*. [Variation in Icelandic syntax, vol. II. Main results. A statistical overview.]

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- Vikner, S. (1995). Verb movement and expletive subjects in the Germanic languages. Oxford University Press, Oxford.
- Wasow, T. (1997). Remarks on grammatical weight. *Language Variation and Change* 9, 81–105.
- Wasow, T., & Arnold, J. (2005). Intuitions in linguistic argumentation. *Lingua* 115: 1481–1496.
- Zec, D., & Inkelas, S. (1990). Prosodically constrained syntax. The phonology-syntax connection (pp. 365–378). S. Inkelas & D. Zec, eds. *CSLI and the University of Chicago Press*, Chicago.

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