



Suffixation under adjacency: the case of Icelandic *the*-support

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Abstract

This paper argues in favor of the hypothesis that there are two definite articles in natural language, a weak article which expresses uniqueness and a strong article which expresses anaphoricity. The study is based on the distribution of definite articles in Icelandic, and they are found to alternate along the same empirical dimension as weak and strong articles in German. Furthermore, the Icelandic pattern manifests a structural interaction which is similar to English *do*-support, and we refer to it as *the*-support. We argue that the similarities between *do*-support and *the*-support suggest that studies of the two phenomena can benefit from considering them to be related at a deep abstract level. Thus, consequences ensue for the theory of suffixation under adjacency.

Keywords Definiteness · Locality · Support morphology · Icelandic

1 Introduction

Recent work provides several pieces of semantic evidence for two definite articles across languages and language families (Schwarz 2009; Arkoh and Matthewson 2013; Simonenko 2013).¹ A weak article D_{weak} expresses situational uniqueness, and a strong article D_{strong} expresses anaphoricity/familiarity. This paper provides evidence from Icelandic which supports the reality of the $D_{\text{weak}}/D_{\text{strong}}$ distinction in a novel way. Specifically, Icelandic D_{weak} shows a morphological interaction which we refer to as *the*-support because the relevant structural configurations are similar to English *do*-support. Because of the striking similarities between the Icelandic and English phenomena, it is a general implication of this work that theories of suffixation

¹ The judgments reported in the paper are our own. The empirical generalizations involved have been confirmed with multiple native speakers of Icelandic. Many of the examples are constructed by adapting German examples from Schwarz (2009) to the Icelandic context under discussion.

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under adjacency would benefit from considering Icelandic *the*-support and English *do*-support as related phenomena at a deep abstract level.

Let us introduce the core data, focusing first on the $D_{\text{weak}}/D_{\text{strong}}$ contrast studied by Schwarz (2009) in German. In Standard German, certain $P+D_{\text{weak}}$ combinations contract but $P+D_{\text{strong}}$ does not contract. This is illustrated for a unique definite and an anaphoric definite below.

- (1) a. Der Empfang wurde [_{PP} **vo-m** Bürgermeister] eröffnet.
the reception was [_{PP} **from-the**_{weak} *mayor*] *opened*
 ‘The reception was opened by the mayor.’ (Schwarz 2009, 29)
- b. (Previous discourse: Hans interviewed a writer and a politician.)
 Er hat [_{PP} **von dem** Politiker] keine interessanten Antworten
He has [_{PP} **from the**_{strong} *politician*] *no interesting answers*
bekommen.
gotten
 ‘He didn’t get any interesting answers from the politician.’ (Schwarz 2009, 23)

Example (1a) shows that a unique definite like ‘the mayor’ contracts with the preceding preposition, resulting in *vom* rather than *von dem*. Note that while a mayor is not a unique phenomenon in the world, it is straightforwardly a situationally unique element in the world context of some city or town and can be used with a definite article on first mention. Example (1b) shows that an anaphoric definite for the second mention of ‘the politician’ does not contract, resulting in *von dem* rather than *vom*. The weak/strong contrast is well disguised in German because the environments which allow for contraction are quite restricted, but Schwarz shows evidence that the distinction is clearly attested in these environments.

The same distinction between weak and strong articles is also morphophonologically neutralized in a wide range of cases in Icelandic because the definite article, whether D_{weak} or D_{strong} , is usually a suffix. The following are Icelandic examples of the relevant DP with a context given in English. The examples show the masculine dative form of the article, *-num*. The form varies by gender and case as described in the paradigm in (15) below but the gender and case facts will generally be omitted from the examples as they are orthogonal to the $D_{\text{weak/strong}}$ contrast under discussion.

- (2) a. (Context: First mention of the World Wide Web)
 Tim Berners Lee introduced the world to ...
 ... ✓ [_{DP} veraldarvef-**num**]
 ... ✓ [_{DP} *world.wide.web-the*_{weak}]
- b. (Previous discourse: Mary talked to a writer and a politician.)
 She got no interesting answers from ...
 ... ✓ [_{DP} stjórnmálamanni-**num**].
 ... ✓ [_{DP} *politician-the*_{strong}].

The examples above demonstrate that the article is commonly a suffix regardless of whether definiteness is licensed by uniqueness or anaphoricity. However, a pre-evaluative position within the DP distinguishes the licensing mechanisms. We use the

descriptive label pre-evaluative for the position immediately to the left of an evaluative adjective. D_{weak} is realized as a free form *hi-nn* when evaluative adjectives (marked red in the examples) intervene between *D/n* (3a). The free form article is never a realization of D_{strong} ; it is never anaphoric (3b).

- (3) a. (Context: First mention of the World Wide Web)
 Tim Berners Lee introduced the world to ...
 ... ✓ [DP **hi-num** *ótrúlega* veraldarvef]
 ... ✓ [DP *HI-the_{weak}* *amazing* world.wide.web]
- b. (Previous discourse: Mary talked to a writer and a **terrible** politician.)
 She got no interesting answers from ...
 ... # [DP **hi-num** *hræðilega* stjórnámamanni]
 ... # [DP *HI-the_{strong}* *terrible* politician]

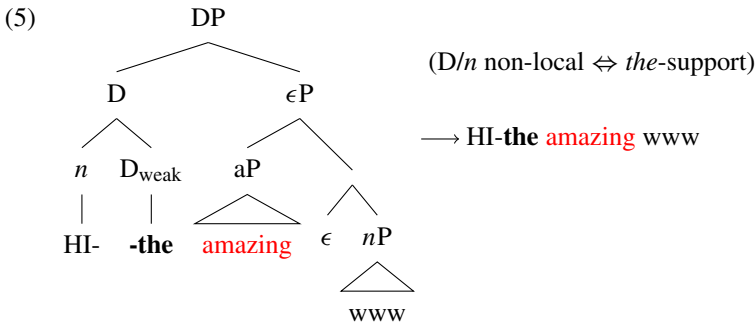
A reviewer brings up apparent counterexamples with *hi-* on a second mention. For the present analysis, exceptions that look like second mention with *hi-* involve accidental co-reference at the level of interpretation, and this would be possible in cases where situational uniqueness is either exceptionally accessible as an alternative to an anaphoric link, or where the application of contextual domain restriction (Neale 1990) is triggered by some contextual convention (certain morphemes or structures) in order to make a reference to a situationally unique element, even though a discourse antecedent is available. For example, Pfaff (2015, 101ff) discusses some examples of this type (his “anaphoric epithets”), and under the present analysis, these apparent exceptions must be such cases of accidental co-reference. Importantly, this will often mean that while it is possible to use the weak article for a second mention, it is more natural to use a demonstrative in the same context. Pfaff does not give much attention to demonstratives, the primary option for anaphoric D in the pre-evaluative position.

As in German, D_{strong} can be paraphrased with a demonstrative, but D_{weak} cannot. Thus, the pre-evaluative position is incompatible with a demonstrative in a discourse context where definiteness is licensed by uniqueness but a demonstrative can be used felicitously in the same position for a second mention of a discourse referent.

- (4) a. (Context: First mention of the World Wide Web)
 Tim Berners Lee invented ...
 ... # [DP **þennan** *ótrúlega* veraldarvef]
 ... # [DP *this* *amazing* world.wide.web]
- b. (Previous discourse: Mary talked to a writer and a **terrible** politician.)
 She got no interesting answers from ...
 ... ✓ [DP **þessum** *hræðilega* stjórnámamanni].
 ... ✓ [DP *this* *terrible* politician].

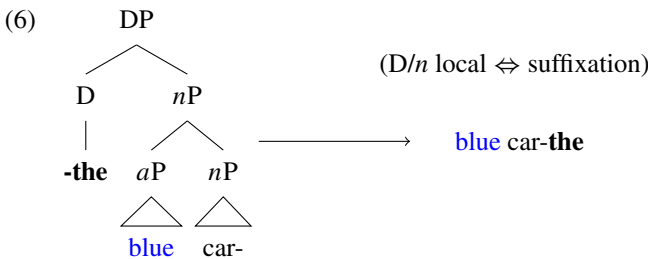
Combined, the Icelandic examples above indicate that while the definite article is usually a suffix, determiners to the left of certain adjectives alternate between a weak free form article *hinn* and a demonstrative *þessi* depending on how definiteness is licensed.

We will refer to the distribution of D_{weak} in Icelandic as *the*-support because of how strongly it resembles English *do*-support. The syntactic analysis we will develop for the Icelandic phenomenon is outlined below. D_{weak} is realized with *the*-support, i.e. the free article, when interveners block D/n locality. We assume that evaluative adjectives are introduced in the specifier of a functional projection ϵ as in (5). Therefore, D/n are non-local when such adjectives intervene and then D_{weak} is realized as a suffix on a support morpheme *hi*-.



Note that we are only using evaluative adjectives as an example to draw out the structural contrast because they are a common intervener in this position. Some other adjectives can also act as interveners and this means that there are more functional heads than ϵ that attach to the noun phrase in the same configuration. For example, Pfaff (2015, 105–106) shows examples with nationality adjectives that pattern like the evaluatives. In the present analysis, these would involve a different functional head, or, alternatively, the interpretation of ϵ could be subject to contextual allosemy and denote a different interpretation depending on its context (see, Wood 2015).

In contrast, D is suffixed onto the noun when no adjectives appear in the noun phrase or only restrictive adjectives do so. The proposed analysis is that restrictives (marked blue in the examples) are not D/n interveners because they are adjoined to nP .



The paper is organized as follows. Section 2 provides theoretical and empirical background on weak and strong definite articles. Section 3 elaborates on the description of definite articles in Icelandic. Section 4 is a comparative study of definite articles in German and Icelandic, which provides evidence that the two languages have the same weak/strong distinction. Section 5 develops an analysis of Icelandic *the*-support.

Section 6 connects the present analysis with general theories about suffixation under adjacency. Section 7 concludes.

2 Weak and strong definite articles

The goal of this section is to present a brief theoretical and empirical introduction to weak and strong definite articles.

2.1 What do definite articles express?

The meaning of the definite article is an old puzzle. One hypothesis is that definite articles express uniqueness (Frege 1892; Russell 1905; Strawson 1950). This approach works well for expressions like *the sun* but contextual domain restriction is needed in the absence of global uniqueness to ensure situational uniqueness. Such domain restriction for definite articles is arguably well motivated because the same mechanism is independently needed elsewhere in natural language (Neale 1990).

- (7) Everyone came to the party. (Not everyone in the world)

Example (7) shows that we can use a universal quantifier *everyone* for a smaller set of individuals than *everyone* in the world by focusing our attention to a situation which is relevant in the context.

A second hypothesis about definiteness, going back to Christophersen (1939), states that definite articles express anaphoricity (or familiarity) (Kamp 1981; Heim 1982). This approach works well for previously mentioned discourse referents as in the second mention of *the book* in (8) but in the absence of a previous mention, one needs to appeal to global familiarity of referents like *the sun* or admit some kind of accommodated familiarity.

- (8) John bought a book and a magazine. The book was expensive.

The preceding discussion exemplifies how the uniqueness hypothesis and the anaphoricity hypothesis are both tailored to certain types of examples but need elaborations for other cases.

A third hypothesis is that there are two definite articles in natural language, D_{weak} for uniqueness and D_{strong} for anaphoricity (Schwarz 2009). According to this view, the denotation of a weak article (9) expresses situational uniqueness (Schwarz 2009, 264) but a strong article (10) includes an additional anaphoric index argument.²

$$(9) \llbracket D_{\text{weak}} \rrbracket = \lambda s_r . \lambda P . \iota x . P(x)(s_r)$$

$$(10) \llbracket D_{\text{strong}} \rrbracket = \lambda s_r . \lambda P . \lambda y . \iota x . P(x)(s_r) \ \& \ x=y$$

² These denotations can be thought of as an LF realization of distinct syntactic objects which are related in their feature composition, e.g. D_{unique} : [+UNIQUE] and D_{strong} : [+UNIQUE, +ANAPHORIC]. See Goodwin Davies (2016) on the feature analysis of the two articles. As a reviewer suggests, this may indicate that languages can differ in whether they bundle the features together or whether they are split into separate morphemes. We do not know of such cases but it is worth keeping in mind for the future exploration of the two articles.

The two article approach is conceptually inferior because it fails to reduce all definite articles to either uniqueness or anaphoricity. However, it is supported empirically by systematic morphological correlates with the two interpretations and therefore it is more accurate.

2.2 Cross-linguistic realization

Evidence from Germanic and beyond suggests that different phonological exponents of definite articles correspond to licensing definiteness by uniqueness vs. anaphoricity. In addition to the Icelandic data under discussion in the present paper, Ebert (1971) describes a correlation between two article forms and interpretation in Fering Frisian, and Schwarz (2009) develops his theory of two articles based on evidence from Standard German. The analysis of Simonenko (2013) builds on a distinction between a full anaphoric article and a reduced unique article in Austro-Bavarian, and Arkoh and Matthewson (2013) study a parallel phenomenon in Akan, thus reaching beyond Germanic.

(11) Cross-linguistic realization of the weak/strong distinction

	D _{weak}	D _{strong}
Fering Frisian	<i>a</i> -form	<i>d</i> -form
Austro-Bavarian	reduced form	full form
Standard German	some P+D combinations contract	no contraction
Akan	null (or not present)	<i>nɔ</i>
Icelandic	free form with <i>D/n</i> interveners	always a suffix
Standard English	<i>the</i>	<i>the</i>

The realization of D_{weak} and D_{strong} in the above mentioned languages is summarized in the table in (11). Note that a language may or may not manifest the distinction in its morphology, Standard English, for example, uses *the* for both interpretations. To show some of these data in context, the reduced Austro-Bavarian D_{weak} is contrasted with its D_{strong} counterpart in (12) (see Wiltschko 2012; Simonenko 2013, 109–110). Akan has a D_{strong} form *nɔ* but no (overt) D_{weak} as shown in (13) (Arkoh and Matthewson 2013, 2).

- (12) a. [DP **D** Sun] geht heit um hoib sechs auf.
 [_{DP} *the_{weak} sun*] rises today at half six up
 ‘Today, the sun rises at 5.30.’
- b. In da Stodtbücherei gibt’s a Buach über Kanada Letzens woa I doat
in det town.library exists it a book about Canada Recently was I there
 und hob ma [DP **des** Buach] ausboagt.
*and have me [_{DP} *the_{strong} book*] borrowed*
 ‘In the public library, they have a book about Canada. Recently, I was there
 and borrowed that book.’

- (13) a. Ármstrònj nyí nympà àà ó-dzí-ì kán tú-ù kó-ò
Armstrong is person REL 3SG.SUBJ-eat-PAST first fly-PAST go-PAST
 [DP òsìrán ∅] dù.
 [DP moon *the_{weak}*] top
 ‘Armstrong was the first person to fly to the moon.’
- b. Mò-tó-ò èkùtú. [DP Èkùtú *nó*] yè dèw pápá.
 1SG.SUBJ-buy-PAST orange [DP orange *the_{strong}*] be nice good
 ‘I bought an orange. The orange was really tasty.’

Schwarz (2013) discusses further potential manifestations of the $D_{\text{weak}}/D_{\text{strong}}$ distinction, ongoing work is exploring related phenomena cross-linguistically. For example, Jenks (2015) pursues an analysis in which numerical classifier languages manifest the weak/strong distinction even if they do not have definite articles in the Germanic sense. Furthermore, work is being carried out on potential connections with the so-called double definiteness in Mainland Scandinavian (Goodwin Davies 2016) as well as American Sign Language (Irani 2015; Irani and Schwarz 2016) and Lithuanian (Šereikaitė 2015).

2.3 Section summary

To summarize the section, there are two definite articles in natural language: D_{weak} is licensed by situational uniqueness and D_{strong} by anaphoricity. The two kinds of uses are illustrated by the English example below.

- (14) Amy bought a book about the_{weak} sun. The_{strong} book was expensive.

The article with the sun is weak because definiteness is licensed by the global uniqueness of the sun. The article with the second mention of the book is strong because definiteness is licensed by familiarity. Although English uses *the* to realize both, this difference in interpretation is systematically reflected in different phonological exponents of D across languages and language families.

3 Icelandic definite articles

The goal of this section is to give an empirical overview of Icelandic definite articles, focusing on facts that are important in the context of the distinction between weak and strong articles.

3.1 Basic facts

Let us review some of the basic facts about Icelandic definite articles which are relevant to the phenomenon under investigation. First, Icelandic has a suffixed article and a free form article; the free article looks as if the suffixed article has been suffixed to *hi-* which

we describe as a support morpheme.³ The paradigm of the Icelandic definite article is shown for all combinations of gender, number and case below.

(15) The suffixed definite article in Icelandic

		<i>hestur</i> ‘horse’	<i>nál</i> ‘needle’	<i>barn</i> ‘child’
		MASC	FEM	NEUT
SING	NOM	hestur-inn	nál-in	barn-ið
	ACC	hest-inn	nál-ina	barn-ið
	DAT	hesti-num	nál-inni	barn-inu
	GEN	hests-ins	nálar-innar	barns-ins
PLUR	NOM	hestar-nir	nálar-nar	börn-in
	ACC	hesta-na	nálar-nar	börn-in
	DAT	hestu-num	nálu-num	börnu-num
	GEN	hesta-nna	nála-nna	barna-nna

(16) The free form definite article in Icelandic

		MASC	FEM	NEUT
SING	NOM	hi-nn	hi-n	hi-ð
	ACC	hi-nn	hi-na	hi-ð
	DAT	hi-num	hi-nni	hi-nu
	GEN	hi-ns	hi-nnar	hi-ns
PLUR	NOM	hi-nir	hi-nar	hi-n
	ACC	hi-na	hi-nar	hi-n
	DAT	hi-num	hi-num	hi-num
	GEN	hi-nna	hi-nna	hi-nna

We assume for the purpose of this paper that the suffixed article is sometimes i-initial and that any two adjacent i’s are pronounced as one in the phonology. For example, if the phonological exponent of the support morpheme is /hi/ and the article is /inn/, then the underlying representation /hi+inn/ will be pronounced /hinn/. A segmentation where the support morpheme is only *h-* would also work for the present analysis as in *h-inn* rather than *hi-nn* although slightly different statements about allomorphy and/or morphophonology would have to be made. We will, however, not dwell on morphophonological details here. The point to be made based on the paradigm above is simply that apart from the support morpheme, the suffixed and free articles look like they are the same phonological exponent and we will treat them as such.

The distribution of the free article *hinn* is constrained by other elements in the noun phrase. Specifically, the free article is only grammatical if certain elements intervene between *D/n*. Therefore, it cannot be used in the absence of modifiers, regardless of context.

³ The description and analysis of the old and modern Icelandic noun phrase and definite article has a long history, including Nygaard (1905); Delbrück (1916); Noreen (1923); Magnússon (1984); Delsing (1993); Sigurðsson (1993); Julien (2005); Sigurðsson (2006); Thráinsson (2007); Harðarson (2014); Pfaff (2015).

- (17) a. (Context: First mention of the World Wide Web)
 Tim Berners Lee introduced the world to ...
 ... * [DP **hi-num** veraldarvef]
 ... * [DP **HI-the** world.wide.web]
- b. (Previous discourse: Mary talked to a writer and a politician.)
 She got no interesting answers from ...
 ... * [DP **hi-num** stjórnámálamanni]
 ... * [DP **HI-the** politician]

In the absence of interveners, the suffixed article must be used:

- (18) a. (Context: First mention of the World Wide Web)
 Tim Berners Lee introduced the world to ...
 ... ✓ [DP veraldarvef-**num**]
 ... ✓ [DP world.wide.web-**the_{weak}**]
- b. (Previous discourse: Mary talked to a writer and a politician.)
 She got no interesting answers from ...
 ... ✓ [DP stjórnámálamanni-**num**]
 ... ✓ [DP politician-**the_{strong}**]

Restrictive adjectives are not *D/n* interveners, and therefore the following examples of weak and strong articles are both realized with a suffixed article.

- (19) a. (Context: First mention of the last binding principle)
 Chomsky invented ...
 ... ✓ [DP síðasta bindilög má l-**ið**]
 ... ✓ [DP last binding.principle-**the_{weak}**]
- b. (Previous discourse: Mary talked to a young politician and an old politician.)
 She got no interesting answers from ...
 ... ✓ [DP unga stjórnámálamanni-**num**]
 ... ✓ [DP young politician-**the_{strong}**]

D/n interveners include at least evaluative adjectives and those suffice for distinguishing *D_{weak}* and *D_{strong}*, so I will focus on them. However, other elements can also appear between *D/n*, notably cardinals (Julien 2005). See also Pfaff (2015) for further discussion of different types of modifiers in the context of an alternative analysis of modifiers in the Icelandic noun phrase.

- (20) **hi-nn** ótrúlegi veraldarvefur
HI-the_{weak} amazing world wide web
 ‘the amazing world wide web’ (amazing by the standards of the speaker)

3.2 A note on “bookishness”

The free article is sometimes described as literary, bookish, archaic, etc. (Sigurðsson 1993; Sigurðsson 2006) but it has emerged that use of the free form correlates with

certain semantic properties. Given the right structure and discourse context, the free article is in fact used in any register. We will not devote much discussion here to reasons for the emphasis on bookishness in some of the earlier literature, but note that some of the examples of free articles which are used in earlier discussions are difficult to coerce into an interpretation and discourse context which licenses the free article. Consider, for example, the following example and judgement from Sigurðsson (2006).

- (21) ?? [DP **hi-nn** nýi bíll] var dýr.
 [DP *HI-the new car*] was expensive

In order to be grammatical, ‘the car’ has to be situationally unique and ‘new’ needs to be evaluative. The sentence therefore has to mean something like: ‘The unique entity in the situation under discussion which is a car is new by my standards and it was expensive’. No context is given and it is much easier to imagine a context where ‘car’ is used anaphorically or ‘new’ restrictively. Sigurðsson gives the sentence two question marks and relates it to formal written style. Consider a more elaborate context.

- (22) (Context: The speaker lives in a small town on an island which has only used horses for transportation until now. The first car has been brought into town by the mayor and the speaker saw it today and she and her friend have been wondering how much this remarkable item cost. The car is quite a novelty by her standards. This is a conversation later that day in which the car has not been mentioned before.)

? [DP **hi-nn** nýi bíll] var dýr.
 [DP *HI-the new car*] was expensive

‘The new car was expensive’

Intended: ‘The unique car which is a novelty by my standards was expensive.’

The example is more natural with all of that context added, but it still depends on our ability to read ‘new’ as something like ‘novelty by the standards of the speaker’ which is not the most salient reading of ‘new’. In such cases it is sometimes easier to get the evaluative component out of an ironically intended opposite meaning. The context below adds an explicitly ironic interpretation to ‘new’.

- (23) (Context: The speaker lives in a small town on an island which has only used horses for transportation until now. The first car has been brought into town by the mayor and the speaker saw it today and she and her friend have been wondering how much this remarkable item cost. *Furthermore, cars are so expensive that the mayor actually had to buy an old used car because the town’s budget would not allow for a new one.* This is a conversation later that day in which the car has not been mentioned before.)

[DP **hi-nn** ⟨airquotes⟩ **nýi** ⟨/airquotes⟩ bíll] var dýr.
 [DP *HI-the new car*] was expensive

‘The new car was expensive’

Intended: ‘The unique car which is “new” by my standards was expensive.’

If we have made properly sure that the car is situationally unique, has not been mentioned before in the conversation and if ‘new’ gets an ironic reading, which is emphasized by the air quotes, the sentence is fine in any register, including an informal chat between friends. Of course, because so much context is needed to make the free article natural, the choice of the example is not ideal for studying the free article. In fact Sigurðsson (2006) also gives an example which is easier to imagine in an appropriate context for the free article.

- (24) Ég aðhyllist [_{DP} **hi-na** athyglisverðu hugmynd um færslur].
I adhere-to [_{DP} **HI-the** interesting idea about movements]
 ‘I adhere to the (evaluatively) interesting idea about movements.’

Sigurðsson suggests that, in addition to formal written style, abstractness of the noun is important. However, as we will see below, this correlation with abstractness is a result of such nouns often picking out situationally unique referents. Other uniquely denoting *nP*’s like proper names and larger situation uniques serve the same purpose, while being concrete. The example in (24) about the idea that movement exists is easily unique in the context of an article about theoretical syntax. Also, ‘interesting’ is easily interpreted as evaluative. Thus, on first mention of the ‘interesting idea about movements’, the free article is not only preferable in a sentence like (24), it is obligatory. The suffixed variant in (25) requires a context in which there are at least two alternative ideas about movements and in which ‘interesting’ is a non-intervening restrictive element which selects a unique referent for the DP out of a non-singleton set of ideas (some of which are uninteresting).

- (25) Ég aðhyllist [_{DP} athyglisverðu hugmynd-**ina** um færslur].
I adhere-to [_{DP} interesting idea-**the** about movements]
 ‘I adhere to the (restrictively) interesting idea about movements.’

For the above reasons, we will consider several examples in which the appropriate structure and discourse context is obviously compatible with the free article. That includes globally unique nouns like ‘the world wide web’ and straightforwardly evaluative adjectives like ‘amazing’.

Despite some of the earlier comments on bookishness, it has become clear through various observations about the semantics of free form *hinn* that usage of the free form article is correlated with semantic properties. It has been noted that *hinn* is incompatible with ‘deictic reference’ (Delsing 1993) Some instances of *hinn* have been described as ‘false definites’ (Jónsson 2000; Thráinsson 2007, 326) and those escape the definiteness effect for existential constructions (Milsark 1977). The meaning of adjectives matters for *hinn*, e.g. restrictive adjectives in the absence of evaluatives are not compatible with it (Árnason 1983; Thráinsson 2007, 4), whereas evaluatives are.⁴ The proposal of the present study is that the $D_{\text{weak}}/D_{\text{strong}}$ distinction is crucial to understanding the distribution of the free article *hinn* in Icelandic.

⁴ The importance of evaluative interpretation of the adjective has been noted independently by Pfaff (2015).

3.3 The free article *hinn* is never anaphoric

Recall that the free D_{weak} article is used for first mention of a globally unique entity, not demonstratives:

(26) (Context: First mention of the World Wide Web)

Tim Berners Lee kynnti heiminn fyrir [DP **hi-num/#þessum** ótrúlega
Tim Berners Lee introduced world.the to [DP **HI-the_{weak}/#this** *amazing*
 veraldarvef].
world.wide.web]

‘Tim B. Lee introduced the world to the amazing World Wide Web.’

Demonstratives are anaphoric and nearly synonymous with D_{strong} , hence unavailable for first mention. An interesting situation arises when a unique definite is referred to for the second time. On second mention of the world wide web, use of the free article is disallowed in Icelandic and in this case a demonstrative must be used instead:

(27) (Context: Response to (26))

þú veist svo mikið um [DP **#hi-nn/#þennan** ótrúlega veraldarvef].
You know so much about [DP **#HI-the_{weak}/#this** *amazing* *world.wide.web*]

‘You know so much about this amazing World Wide Web.’

Just as in the case of the free article, the pronominal evaluative adjective between D/n blocks suffixation. Therefore a demonstrative must be used instead. If the response involves no D/n intervener, the article is suffixed:

(28) (Context: Alternative response to (26))

þú veist svo mikið um [DP veraldarvef-**inn**]
You know so much about [DP *world.wide.web-the_{strong}*]

‘You know so much about the World Wide Web.’

The suffix is morphologically ambiguous between D_{weak} and D_{strong} . However, (27) suggests the D_{weak} is not used for second mention in Icelandic, and therefore we assume that the suffix in (28) is an exponent of the strong article.

Note that the second mention of a unique definite is in principle compatible with both D_{weak} and D_{strong} . It is still unique and it is potentially anaphoric because it has been brought up before. In such a case, it seems like languages may employ different defaults. Icelandic chooses the strong article for second mention uniques, but German seems to prefer the weak article again in a comparable situation. P+D contraction is widely used for unique entities like ‘the moon’ in German, even on second mention. Thus, German speakers would use *zum Mond* ‘to-the moon’ for a second mention rather than the uncontracted *zu dem Mond*. I leave it for future work to uncover any explanation there may be for the two languages patterning differently in this respect.

3.4 Section summary

The morphology of the free article *hinn* has the form *hi*+D, and the free article is never anaphoric. Although some of the earlier literature described the free article as bookish, those descriptions may be mostly due to the choice of examples. The free article is in fact used in any register if three conditions are met: First, definiteness has to be licensed by uniqueness. Second, there has to be an intervener between D/*n* like an evaluative adjective. Finally, there must be no antecedent available in the discourse for anaphoric interpretation.

4 Comparing German and Icelandic

This section shows that German and Icelandic $D_{\text{weak}}/D_{\text{strong}}$ pattern the same. Given a discourse context which unambiguously licenses definiteness by uniqueness or anaphoricity and a structural configuration which reveals the difference between the two licensing mechanisms overtly, German D_{weak} patterns with the free article in Icelandic and German D_{strong} patterns with the absence of the free article. The relevant structural configuration in German is a P+D combination which has morphological potential for contraction, like *zu dem* \rightarrow *zum* ‘to the’, and in Icelandic the distinction between the articles is manifested in the pre-evaluative position, to the left of adjectives like ‘amazing’ when they express an evaluation of the DP referent relative to the standards of the speaker.

4.1 Contexts for the weak article

The weak article is licensed by situational uniqueness. In this section, we show a series of examples from German and Icelandic in which uniqueness is satisfied as well as the structural configuration which can reveal an overtly weak article in each language. The point of the section is that German and Icelandic pattern together in using D_{weak} in the same types of discourse contexts. The empirical generalization to be captured can be schematized as follows. The correlation between the languages holds in all cases except for the second mention uniques described above.

(29) Empirical generalization for situational uniqueness

German D_{weak}	\iff	Icelandic: ✓ free article #demonstrative	(in pre- evaluative position)
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In a context where German uses the weak contracted article, Icelandic uses the free article in the pre-evaluative position. In such contexts, a demonstrative is not a felicitous determiner because demonstratives are anaphoric. Each of the examples below pairs two sentences. The first sentence is always a German sentence with a unique definite with a contractable P+D combination. The second sentence of the pair is always a unique definite in Icelandic modified by an evaluative adjective. Let us first consider

the globally unique entities in (30), repeated from above, as well as reference to kinds (31):

- (30) a. Armstrong flog als erster [PP **zu-m** Mond].
*Armstrong flew as first one [PP to-**the**_{weak} moon]*
 ‘Armstrong was the first one to fly to the moon.’
- b. Tim Berners Lee kynnti heiminn fyrir [DP **hi-num** ótrúlega
*Tim Berners Lee introduced world.the to [DP HI-**the**_{weak} **amazing***
veraldarvef]
world.wide.web]
 ‘Tim B. L. introduced the world to the amazing World Wide Web.’
- (31) a. [PP **A-m** Zebra] kann Mann sehen dass die Natur symmetrisch ist.
*[PP on-**the**_{weak} zebra] can one see that the nature symmetrical is*
 ‘The zebra shows us that nature is symmetrical.’ (Schwarz 2009, 41)
- b. [DP **Hi-nn** dularfulli sebrahestur] sýnir okkur að náttúran er
*[DP HI-**the**_{weak} **mysterious** zebra] shows us that nature.the is*
samhverf.
symmetrical
 ‘The mysterious zebra shows us that nature is symmetrical.’

The examples show that global uniques and kinds, both of which are types of unique definites, license D_{weak} in German and Icelandic. German uses contraction and Icelandic uses the free article. Note that in (31), the intended reading involves the species and not individuals thereof, a distinction which will be revisited in Sect. 5.

Unique dates as in (32) are also environments for the weak article and so are proper names as in (33).

- (32) a. Die Mauer fiel [PP **a-m** 9. November 1989].
*the wall fell [PP on-**the**_{weak} 9th November 1989]*
 ‘The wall fell on November 9th 1989’ (Schwarz 2009, 19)
- b. Múr-inn féll [DP **hi-nn** eftirminnilega 9. nóvember 1989].
*Wall-the fell [DP HI-**the**_{weak} **memorable** 9. November 1989]*
 ‘The wall fell the memorable November 9, 1989.’
- (33) a. Ich müsste mal wieder [PP **bei-m** Hans] vorbeischauchen.
*I must once again [PP by-**the**_{weak} Hans] stop.by*
 ‘I should stop by Hans’s place again some time.’ (Schwarz 2009, 40)
- b. Ég er [DP **hi-nn** frægi Jón].
*I am [DP HI-**the**_{weak} **famous** John]*
 ‘I am the famous John.’

It is worth noting that the Icelandic example in (32b) illustrates nicely that the distribution of the weak article is based on a generalization which refers to uniqueness. Here, the free weak article must be used even if a child is not likely to hear many, if any, tokens of dates modified by evaluative adjectives during language acquisition.

Furthermore, individuals can be interpreted as unique in the context of a larger situation even if the noun which describes them does not yield global uniqueness. For example, the mayor in (34) licenses D_{weak} in both German and Icelandic when uttered in the context of some city which is understood to have a unique mayor.

- (34) a. Peter hat [PP **bei-m** Bürgermeister] angerufen.
Peter has [PP by-the_{weak} mayor] called
 ‘Peter called the mayor.’ (Schwarz 2009, 20)
- b. Móttakan var haldin af [DP **hi-num** stórfyndna borgarstjóra].
reception.the was held by [DP HI-the_{weak} big-funny major]
 ‘The reception was held by the hilarious major.’

The interpretation of superlatives is inherently well suited to yield weak articles because they select a unique individual out of a set. This can be seen in (35) where the highest mountain in the world is used with D_{weak} in German as well as Icelandic.

- (35) a. Auf unserer Reise nach Tibet sind wir natürlich auch [PP **zu-m**
on our trip to Tibet are we of course also [PP to-the_{weak}
höchsten Berg der Welt] gefahren.
highest mountain the world] driven
 ‘On our trip to Tibet, we of course went to visit the highest mountain of the world.’
- b. Í ferð okkar til Tíbet heimsóttum við [DP **hi-ð** fræga hæsta
in trip our to Tibet visited we [DP HI-the_{weak} famous highest
fjall í heiminum].
mountain in world.the]
 ‘On our trip to Tibet, we visited the highest mountain of the world.’

Notice that in the Icelandic example in (35b) we have two adjectives. The superlative is restrictive and selects a unique mountain which is furthermore modified by an evaluative adjective ‘famous’.

It is also possible for the superlative to be an intervener which triggers use of the free article but in that case the superlative must be interpreted as evaluative (or relative).

- (36) Við fengum [DP **hi-na** bestu máltíð] á veitingastað-num.
we got [DP HI-the_{weak} best meal] at restaurant-the
 ‘We got a really good meal at the restaurant.’

The example above corresponds to a usage of the superlative which is also available to many native speakers of English, at least in colloquial speech. The evaluative superlative is not restrictive but rather expresses the evaluation of the DP referent that this was a very good meal according to the standards of the speaker.

The above examples describe canonical unique definites and how they pattern together in German and Icelandic. There are also more nuanced ways of establishing situational uniqueness. Uniqueness can for example be inferred. As an introduction to such examples, consider the canonical unique definites in (37).

- (37) (Context: There is one particular analysis of PRO subjects in Icelandic that everyone knows about and this theory is the topic of syntax class today.)
- a. Als naechstes kommen wir [pp **zu-r** beruehmten PRO-Analyse].
as next come we [pp to-the_{weak} famous PRO-analysis]
 ‘Now we will move on to the famous PRO-analysis.’ (Florian Schwarz p.c.)
- b. Nú ætla ég að segja ykkur frá [DP **hi-nni** frægu
now will I to tell you about [DP HI-the_{weak} famous
 PRO-greiningu].
PRO-analysis]
 ‘Now I will tell you about the famous PRO-analysis.’

Theories and analyses are generally unique, and therefore the two languages use D_{weak} to refer to them. This general property of analyses makes it felicitous to use the weak article with them even if some participants in the conversation have never heard about a particular analysis before. Examples of inferred (global) uniqueness are shown below. The examples are inspired by the *Goosh*-examples of Hawkins (1978) and the analyses-examples of Sigurðsson (1993):

- (38) (Context: At the beginning of class. No student has learned about the Goosh-analysis before.)
- a. Als naechstes kommen wir [pp **zu-r** beruehmten Goosh-Analyse].
as next come we [pp to-the_{weak} famous Goosh-analysis]
 ‘Now we will move on to the famous Goosh-analysis.’ (Florian Schwarz p.c.)
- b. Nú ætla ég að segja ykkur frá [DP **hi-nni** frægu gúsgreiningu].
now will I to tell you about [DP HI-the_{weak} famous goosh.theory]
 ‘Now I will tell you about the famous Goosh-analysis.’

Speakers are assumed to understand analyses as unique and the examples demonstrate that this is sufficient for licensing D_{weak} for unknown analyses.

As Schwarz (2009) shows for German, definite descriptions with the weak article can receive a covarying interpretation when they are embedded under quantification over situations.

- (39) a. Jedes Mal, wenn eine Runde vorbei ist, werden die Karten
Every time when a round over is are the cards
 [pp **vo-m** Gewinner] neu gemischt und verteilt.
[pp by-the_{weak} winner] newly shuffled and dealt
 ‘Every time when a round is over, the cards are shuffled and dealt anew by the winner.’ (Schwarz 2009, 31)
- b. (Context: The speaker is annoyed that she always loses. There is only one winner per round.)
 Alltaf eftir hverja umferð eru spilin gefin aftur af [DP **hi-num**
always after each round are cards.the given again by [DP HI-the_{weak}
 óþolandi sigurvegara].
intolerable winner]

‘Always after each round, the cards are dealt again by the intolerable winner.’

In the examples in (39), the sentence quantifies over situations each of which has a unique winner. Therefore, German uses the contracted P+D combination *vom* and Icelandic uses the free article *hinum* in the pre-evaluative position. Schwarz relates covarying use of the weak article to the phenomenon of part-whole bridging, and the winner who is a unique part of each round is a clear example of this. Covarying use of the weak article has implications for the formal situation semantics developed by Schwarz, but for the purpose of the present study, this final example of the parallelism between D_{weak} in German and Icelandic is important because the two languages pattern together even in such nuanced mechanisms for establishing situational uniqueness.

4.2 Contexts for the strong article

The strong article D_{strong} is used for anaphoric interpretation. When referring back to an established discourse referent, German does not use contraction and Icelandic disallows the free article. An empirical generalization for anaphoricity is schematized below.

(40) **Empirical generalization for anaphoricity in Icelandic**

	Icelandic:	
German D_{strong}	\iff	#free article (in pre- evaluative position)
		✓demonstrative

The pre-evaluative position in Icelandic is incompatible with the free article in discourse contexts where German articles do not contract. Because the pre-evaluative position in Icelandic prevents suffixation and strong articles cannot be free in the language, the alternative strategy is to use demonstratives in definite contexts with an anaphoric interpretation. Thus, the pre-evaluative position manifests an alternation between free articles and demonstratives depending on the licensing mechanism for definiteness.

The canonical case of anaphoric interpretation involves an explicit linguistic antecedent as in the repeated examples below.

- (41) a. (Previous discourse: Hans interviewed a writer and a politician.)
 Er hat [PP von **dem** Politiker] keine interessanten Antworten
*He has [PP from **the_{strong}** politician] no interesting answers*
 bekommen.
gotten
 ‘He didn’t get any interesting answers from the politician.’ (Schwarz 2009, 23)
- b. (Previous discourse: Mary talked to a writer and a **terrible** politician.)
 Hún fékk engin góð svör frá [DP #**hi-num**/✓**þessum hræðilega**
*She got no good answers from [DP #**HI-the**/✓**this terrible***
stjórnámamanni].
politician]

‘She got no good answers from the terrible politician.’

Note that the use of the demonstrative in (41b) can be thought of as a rescue strategy for anaphoricity when suffixation is ruled out due to the D/n intervener, which is the evaluative adjective. The close relationship between demonstrative uses and the strong, but not the weak, article are noted by Schwarz (2009).

Anaphoric usage does not have to be based on a second mention of the exact same noun phrase. A general description can be used to refer back to a more specific description.⁵

- (42) a. (Previous discourse: Maria has invited an ornithologist to the seminar.)
 Ich halte [PP von **dem**_{strong} Mann] nicht sehr viel.
*I hold [PP of **the**_{strong} man] not very much*
 ‘I don’t think very highly of the man.’ (Schwarz 2009, 25)
- b. (Previous discourse: Mary sent a fan letter to a movie star from America.)
 Að mínu mati er [DP #**hi-nn**/√**þessi** frægi listamaður] ekki
*To my opinion is [DP #**HI-the**_{weak}/√**this** famous artist] not*
mjög áhugaverður.
very interesting
 ‘In my opinion, the famous artist is not very interesting.’

Furthermore, anaphoric usage can also be covarying. The examples in (43) show how an anaphoric link can be established within each situation which is quantified over in the sentence. In the German example, ‘ornithologist’ serves as an antecedent for ‘the man’ and in the Icelandic example, ‘movie star’ is an antecedent for ‘this famous artist’.

- (43) a. Jedes Mal, wenn ein Ornithologe i-m Seminar einen Vortrag
*every time when an ornithologist in-the*_{weak} *seminar a lecture*
 halt, wollen die Studenten [PP von **dem** Mann] wissen, ob
*holds want the students [PP of **the**_{strong} man] know whether*
 Vogelsang grammatischen Regeln folgt.
bird singing grammatical rules follows
 ‘Every time an ornithologist gives a lecture in the seminar, the students
 want to know from the man whether bird songs follow grammatical rules.’
 (Schwarz 2009, 25)
- b. Alltaf þegar kvikmyndastjarna heimsækir skólann spyrja
always when movie.star visits school.the ask
 nemendurnir [DP #**hi-nn**/√**þennan** fræga listamann] hvort
*students.the [DP #**HI-the**_{weak}/√**this** famous artist] whether*
 listamenn fá góð laun.
artists get good salary

⁵ A reviewer notes that these examples are similar to examples discussed by Pfaff (2015) where *hi-* is reported as natural. As discussed in the introduction, use of *hi-* on second mention in similar examples would involve accidental co-reference under the present analysis. Crucially, the demonstrative is a more natural option than *hi-* on second mention in the pre-evaluative position.

‘Always when a movie star visits the school, the students ask the famous artist whether artists get a good salary.’

The ways in which German licenses definiteness by anaphoricity are used in a parallel manner in Icelandic. In such a discourse context, Icelandic disallows the free weak article and offers the demonstrative as an alternative strategy.

4.3 Section summary

German and Icelandic pattern the same with respect to $D_{\text{weak/strong}}$ contexts. The discourse contexts which trigger P+D contraction in German, trigger *the*-support in Icelandic. Non-contracting discourse contexts in German are not compatible with Icelandic *the*-support.

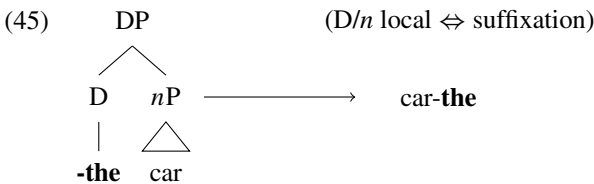
5 Icelandic *the*-support

This section develops an analysis of Icelandic *the*-support, which is the structural phenomenon that realizes the free article when definiteness is licensed by uniqueness.

5.1 Syntactic analysis for *the*-support

The basic case of a definite article is a simple noun with the definite suffix as in (44). In such a case, D suffixes onto the local noun immediately to its right regardless of its status as weak or strong. Our analysis is illustrated in (45).

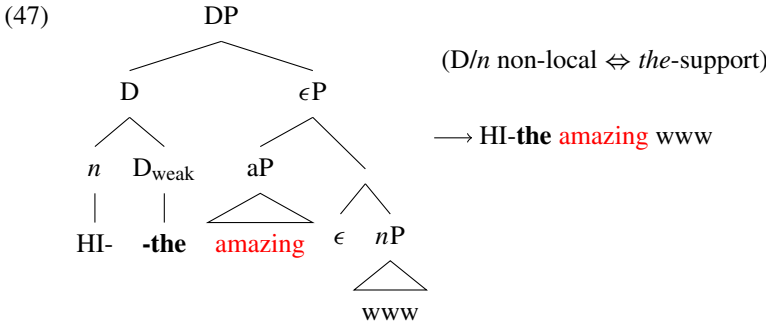
(44) **bíll-inn**
car-the_{weak/strong}



We will argue below that the suffixation is a case of local dislocation under linear D/n adjacency in the sense of Embick and Noyer (2001). D_{weak} is realized with *the*-support (i.e., the free article) when interveners, notably evaluative adjectives, block D/n locality, as below. The proposed analysis is that evaluative adjectives are introduced in the specifier of a functional projection ϵ . When ϵ appears between D/n, the article and the noun are non-local and therefore *the*-support is triggered.

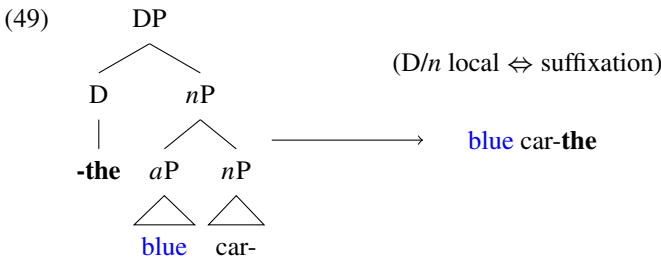
(46) **hinn ótrúlegi** veraldarvefur
HI-the_{weak} amazing world.wide.web

Under this analysis, the phenomenon of *the*-support involves merging a support morpheme *HI-* with a determiner which would otherwise not be local to an appropriate host noun.



D is realized as a suffix when local to the noun. This includes the case when there are no adjectives in the DP or only restrictive adjectives. The analysis for restrictive adjectives like ‘blue’ in (48) is that they are adjoined to *nP*. Therefore, D/n are local as in the tree in (49).

(48) blái bíll-inn
blue car-the



We hypothesize that adjuncts are not visible for the purpose of the type of adjacency involved, and therefore ‘the’ can suffix onto ‘car’ despite modification by restrictive ‘blue’.

5.2 Motivation for the adjunct/specifier structural contrast for adjectives

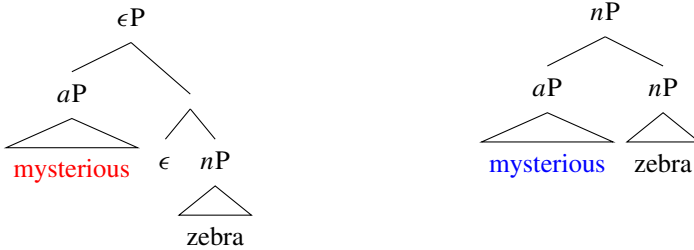
It is often possible to use the same adjective in a restrictive manner or in a manner which encodes a richer meaning like evaluative usage. The structural contrast which we propose between adjuncts and specifiers alleviates the need for lexical ambiguity in such cases. Restrictive adjectives adjoin to *nP* and their denotation combines directly with *nP*, whereas added meaning like ‘evaluative’ is contributed by functional projections like ϵ . This structural distinction is also a possible partial answer to the question whether Icelandic (or Scandinavian, etc.) adjectives are adjoined phrases (Svenonius 1994), heads (Sigurðsson 1993, c.f., Abney 1987), or specifiers (Julien 2005, c.f. Cinque 1994). Here, adjectival structure reflects interpretation.

According to our analysis, the denotation of ϵ relates an adjective in its specifier to the *nP* which is its complement:

$$(50) \llbracket \epsilon \rrbracket = \lambda P_{\langle e, \langle s, t \rangle \rangle} \cdot \lambda G_{\langle e, \langle s, t \rangle \rangle} \cdot \lambda x \cdot \lambda s \cdot P(x)(s) \ \& \ \text{Rel}(G)(x)(s)$$

In this denotation, $\text{Rel}(G)(x)(s)$ expresses the relation that $G(\text{Spec}, \epsilon)$ is the opinion of the speaker about x (DP referent) in situation s .⁶ Now, all adjective phrases are of the syntactic category aP and their denotations are not ambiguous along the restrictive/evaluative dimension. An adjective like ‘mysterious’ is merged in different structural positions depending on how it is to be interpreted.

- (51) ‘mysterious by the standards of the speaker’ (52) ‘in the set of mysterious individuals’



The prediction is that *mysterious*_{evaluative} triggers *the*-support, but *mysterious*_{restrictive} does not. Consider first the evaluative reading demonstrated by example (53).

- (53) [DP **Hi-nn** dularfulli sebrahestur] sýnir okkur að náttúran
 [DP *HI-the*_{weak} *mysterious*_{evaluative} zebra] shows us that nature.the
 er samhverf.
is symmetrical
 ‘The mysterious zebra shows us that nature is symmetrical.’
 ⇒ ‘The species zebra is mysterious.’

The free article above is only grammatical if the adjective is evaluative and the zebra *nP* denotes uniquely, giving rise to a kind reading. Evaluative adjectives express the commitment that they describe the opinion of the speaker. Therefore, it is infelicitous to continue example (53) with “... but I do not consider it mysterious”.

In contrast, consider the restrictive reading of ‘mysterious’ which is demonstrated by the example below.

- (54) (Context: There are 9 zebras in the zoo and some consider one of them mysterious because it has been gaining weight lately)
 [DP **Dularfulli** sebrahestur-**inn**] hvarf á miðnætti.
 [DP *mysterious*_{restrictive} zebra-*the*_{weak/strong}] disappeared at midnight
 ‘The mysterious zebra disappeared at midnight.’
 ⇒ ‘One of the zebra individuals is mysterious.’

The suffixed article above is only grammatical if the adjective is restrictive, giving rise to an individual reading. Restrictive adjectives do not have to express the opinion of

⁶ We remain agnostic about orthogonal implementation details of encoding evaluativity because the only important aspect here is that a certain structural contrast reflects a contrast in interpretation. There may be promising avenues in the literature on predicates of personal taste which we will not explore in the present paper (see Lasersohn 2005; Stephenson 2007).

the speaker, and therefore it is a possible continuation to say: "... but I do not consider it mysterious", for example if the speaker is the person who has been secretly feeding the mysterious zebra and thus does not find its weight gain mysterious.

Beyond the fact that evaluative adjectives and restrictive adjectives have a different meaning and trigger a different syntax, an analysis based on this distinction is independently motivated by how the semantics of such composition is standardly implemented. While evaluative adjectives as analyzed above (and possibly other categories of adjectives with a complex meaning) combine semantically with their context via Functional Application (see Heim and Kratzer 1998, 44), restrictive adjectives that are sisters have the same semantic type, type $\langle e, \langle s, t \rangle \rangle$, and thus they combine via Predicate Conjunction (Kratzer 2009; Wood 2012). The notion of restrictive adjectives 'combining directly' therefore reflects a distinct semantic operation, motivated and implemented by Kratzer.

5.3 Section summary

According to the analysis in this section, *D/n*-intervening adjectives are introduced in specifiers that express additional meaning contribution while the denotation of adjoined restrictives combines directly with *nP*. This means that adjectives are not uniformly adjuncts, specifiers or heads. Rather, their structural position reflects their interpretation.

6 Suffixation under adjacency

We have argued above that suffixation of the definite article targets an immediately local noun. The goal of the final main section is to clarify the notion of 'local' for the purpose of suffixation.

6.1 Comparing English *do*-support and Icelandic *the*-support

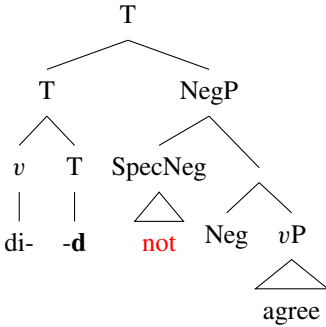
The term, *the*-support, is intended to emphasize similarities between the weak article in Icelandic and the morphosyntax of English *do*-support. The basic ingredients of the English phenomenon are the following. Tense is often a suffix on the verb as in (55a). However, such suffixation is ungrammatical if negation intervenes between T(ense) and the *v*(erb) as shown in (55b). When such interveners are part of the sentence, tense is realized with a support morpheme *do* as in (55c). Even though elements like negation block T/*v* locality, *v*-adjoined adverbs do not. For example, *completely* in (55d) does not block suffixation.

- (55) a. John agree-**d**. (T(ense) is a suffix)
 b. * John not agree-**d**. (Negation is an intervener for suffixation)
 c. John di-**d** not agree. (In which case, *do* is inserted)
 d. John completely agree-**d**. (*v*-adjoined adverb: non-intervener)

An analysis of the English facts, adapted from Embick and Noyer (2001, 587) is shown in (56–57).⁷ The analysis is then compared with the present analysis of Icelandic in (58–59).

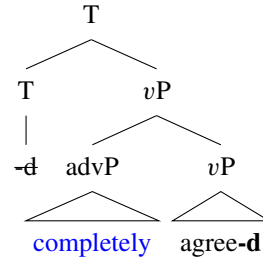
Intervention in English

- (56) Neg intervenes between T/v:
Support morphology



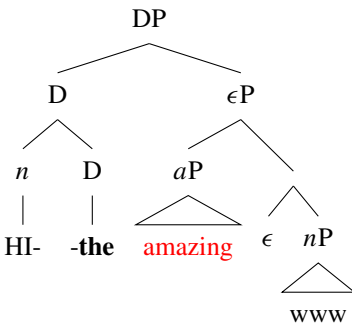
Non-intervention in English

- (57) Adjoined adverb is not a T/v intervener:
Suffixation



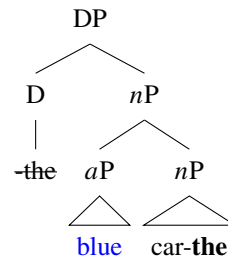
Intervention in Icelandic

- (58) ε intervenes between D/n
Support morphology



Non-intervention in Icelandic

- (59) Adjoined adjective is not a D/n intervener:
Suffixation



The important point here is that the English and Icelandic phenomena look similar and treating them as the same at a deep abstract level is the obvious null hypothesis. If they are in fact comparable, then evidence from *do*-support may inform the analysis of *the*-support and vice versa.

6.2 Zeroing in on the relevant type of locality

What counts as immediately local for suffixation? Embick and Noyer (2001) discuss two types of analyses for the English suffixation facts. First, they consider head-to-

⁷ Embick and Noyer base their discussion on two types of suffixation operations, local dislocation and lowering. These build on earlier work on Morphological Merger (Marantz 1984, 1988). The relationship between syntactic structures and affixation in English was already an object of inquiry in Chomsky (1957).

head lowering where T lowers onto its *v* complement at PF. Adjuncts do not affect the head-complement relation between T/*v* but Neg does and therefore *completely* does not count as an intervener even if *not* does. The second potential analysis involves a so-called local dislocation under linear adjacency. Under this alternative, T suffixes onto the *v* which is linearly to its right. Here, adjuncts do not count as interveners for the relevant type of PF adjacency. For example, adjuncts might be invisible due to a countercyclic adjunction mechanism (see Lebeaux 2000; Stepanov 2001). We can, for example, say that an adjunct is only an unpronounced placeholder in the structure to which it attaches until it is evaluated late at the interfaces.

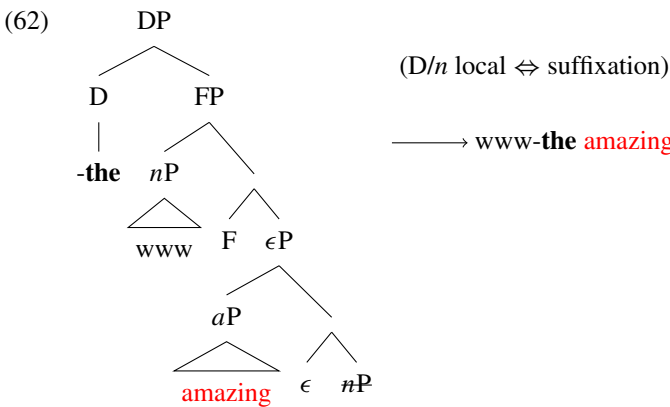
Embick and Noyer analyze *do*-support as head-to-head lowering at PF for lack of motivation for adjunct invisibility but these two analyses are in fact hard to distinguish empirically in English. However, Icelandic *nP* can move to the left of evaluatives as in (60) and this movement may serve as a clue to the proper analysis of support morphology:⁸

- (60) veraldarvefur-**inn** ótrúlegi
 world.wide.web-**the**_{weak} amazing
 ‘the amazing world wide web’

Importantly, the free article is ungrammatical with *nP* in this position:

- (61) ***hi-*nn*** veraldarvefur ótrúlegi
 HI-**the**_{weak} world.wide.web amazing
 Intended: ‘the amazing world wide web’

The important point here is that this looks like an effect of linear adjacency. To the extent that the English and Icelandic distribution are structurally the same, the Icelandic distribution favors reducing both to Local Dislocation under linear adjacency, contra Embick and Noyer. Our analysis of (60) is shown below. *nP* moves to a position Spec,FP above ϵ and D suffixes onto the *n* immediately to its right like it normally does.



⁸ A similar pattern appears with cardinals which are also between D/*n* and pattern as ‘amazing’ in (60–61). To account for this, a part of the noun phrase moves leftward in Vangsnes (1999, 144–146), Julien (2005), Harðarson (2014) and Pfaff (2015). Magnússon(1984, 104) assumes rightward movement of adjectives. Sigurðsson (1993) applies a head movement analysis.

We do not speculate about the identity of FP here. It is simply assumed to be some functional projection on the nominal spine.⁹ The important fact is that *nP* moves to the left of the position which hosts the evaluative adjective.

6.3 Residual issues

The reader might have noted that the postnominal adjective might have been derived by head movement. However, there is in fact clear evidence that this word order is the consequence of phrasal movement. The evidence for *nP* movement is that restrictives move along with *nP* when such movement takes place (see Vangsnes 1999, 144–146). The base generated structure is shown in (63a) and the *nP* movement in (63b):

- (63) (Context: There is a blue picture and a yellow picture in the present situation. First mention.)
- a. **hi-n** **glæsilega** [_{nP} **bláa** mynd]
HI-the_{weak} elegant [_{nP} *blue picture*]
 - b. [_{nP} **bláa** mynd-**in**] **glæsilega**
 [_{nP} *blue picture-the*] *elegant*
 ‘the elegant blue picture’

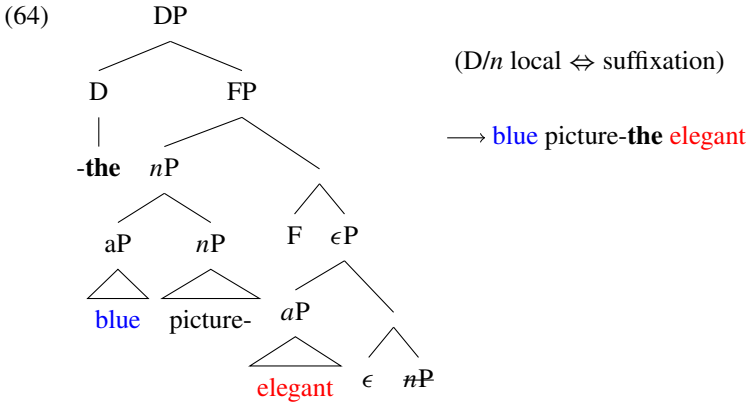
The analysis of (63b) is given below. The *nP* moves with its *aP* adjunct and D suffixes onto the now adjacent ‘picture’. The adjunct ‘blue’ is again linearly invisible due to late adjunction.¹⁰

⁹ A reviewer asks about the nature of FP. I suspect the analysis would be compatible with various different implementations of F, but in any case it is not unusual to assume that the noun phrase contains projections that reflect additional functional structure on its left edge. For example, Julien (2005) offers a detailed view of the Scandinavian noun phrase and lays out a structure that is more fine-grained than the present one and quite possibly contains clues to a more concrete analysis of FP.

¹⁰ A reviewer asks about how this derivation works. The details may vary depending on what is the correct analysis of Late Adjunction. One possibility is that in the syntactic part of the derivation, only a placeholder is merged into the structure, to be filled at a later point in the derivation, at PF. For the mechanics of such a derivation, see Ingason and Sigurðsson (2017). The reviewer also asks about the behavior of numerals in this configuration. Under the present analysis, cardinal numbers generally express a meaning such that they are probably merged as specifiers, similar to evaluative adjectives, and in their case the movement of *nP* to Spec,F is required, as demonstrated by (i–ii) below.

- (i) [_{nP} grísir-**nir**] þrír
 [_{nP} *pigs-the*] *three*
 ‘the three little pigs’
- (ii) * [_{nP} þrír grísir-**nir**]
 * [_{nP} *three pigs-the*]
 Intended: ‘the three little pigs’

However, the goal here is not to analyze all modifiers in the noun phrase, but rather to use the evaluatives to study the articles, so we will not pursue other modifiers in depth. See Pfaff (2015) for a discussion that is more focused on the range of modifiers in the Icelandic noun phrase.



The *nP* movement analysis also accounts for additional word order facts regarding postnominal material (see also Harðarson 2014 on this and related issues). The *nP* movement to the Spec,FP position explains the word order (65a) and extraposition of the PP to the DP edge accounts for (65b).

- (65) a. [_{nP} bláa mynd-**in** [_{PP} af honum]] glæsilega
 [_{nP} blue picture-**the** [_{PP} of him]] elegant
- b. [_{nP} bláa mynd-**in**] glæsilega [_{PP} af honum]
 [_{nP} blue picture-**the**] elegant [_{PP} of him]
 ‘the elegant blue picture of him’

Pattern (65a) is evidence that *nP* movement to Spec,DP is not sufficient to derive the suffixed article. According to such an analysis, a postnominal PP should be able to appear linearly between the *nP* in Spec,DP and the D head. The fact that D appears as a suffix on the noun even with such postnominal PP material supports an approach in terms of our Spec,FP landing site and local dislocation at PF. Example (65b) is treated as PP extraposition because a heavy PP must appear in this position. This is illustrated in (66), a typical distribution for exceptionally heavy elements which have the structural possibility of appearing in a position to the right.

- (66) a. * mynd-**in** [_{PP} af öllum nemendum í bekknum] glæsilega
 picture-**the** [_{PP} of all students in class] elegant
- b. mynd-**in** glæsilega [_{PP} af öllum nemendum í bekknum]
 picture-**the** elegant [_{PP} of all students in class]

The tendency for heavy elements to appear to the right has been known for a long while (Behagel 1909; Quirk et al. 1972), perhaps most famously studied in Heavy NP-shift (e.g., Kimball 1973). Heaviness in the relevant sense can involve different factors, such as the length of a phrase and its structural complexity. Displacement due to heaviness is often optional as it is in (65) and the probability of extraposition depends on relative length, e.g., two words are heavier than one and five words are heavier than two. Furthermore, pronouns behave as if they are lighter than nouns and (65a) would be less natural with a noun in the complement of PP. Importantly, heaviness effects

are attested across different languages and constructions, sometimes in similar ways, although nuances may vary between languages (Indriðadóttir 2023).

A final residual issue is the question of *why* there is no *the*-support with the strong definite article. Why is the anaphoric interpretation expressed with a demonstrative in the pre-evaluative position? One possibility is that the reason is that demonstratives express the meaning of the strong definite article quite well and support morphology is dispreferred on independent grounds, e.g., due to economy considerations. Another possibility is that the demonstrative and the strong article are related in their feature composition and that the demonstrative is in fact a phonological exponent of D_{strong} when it appears in the pre-evaluative position. We leave these questions for future research.

6.4 Section summary

English *do*-support and Icelandic *the*-support look suspiciously similar and it is a useful null hypothesis to treat them the same. If the two phenomena are in fact of the same type, the linear nature of *the*-support speaks in favor of reducing head-to-head lowering to local dislocation under linear adjacency with non-intervening adjuncts, perhaps due to late adjunction. The section also discussed some residual issues like the motivation of *nP* movement which is supported by restrictives moving along with the noun phrase as well as some patterns involving postnominal modification. Although the focus of the paper is strictly on supporting the D_{weak} vs. D_{strong} distinction and discussing its realization in Icelandic, the analysis developed also shows promising compatibility with the general word order facts of the Icelandic DP which have been thoroughly investigated in previous work on the topic.

7 Conclusion

In this paper, we showed that the $D_{\text{weak}}/D_{\text{strong}}$ distinction of Schwarz (2009) is supported by facts about Icelandic definite articles. The distribution of D_{weak} in Icelandic was shown to be remarkably similar to English *do*-support. This means that if the current line of work is on the right track, Icelandic *the*-support can inform the theory of suffixation under adjacency.

While the present inquiry focuses on Icelandic (and, to an extent, English), it also suggests that it would be valuable to compare and contrast these facts with related structures in other Scandinavian languages, as well as Germanic in general (see Roehrs 2015). Such an investigation is an exciting prospect for future work.

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Declarations

Competing interests The authors declare that they have no conflict of interest.

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