Licensing trouble

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1 Introduction

The morphosyntax of Scandinavian DPs has been used to support a number of theoretical mechanisms, such as movement operations in morphology (Embick and Noyer, 2001), syntactic alignment constraints (Börjars and Donohue, 2000) and blocking of syntactic processes by morphological ones (Hankamer and Mikkelsen, 2002, 2005). In this vein, Katzir (2011) proposes a reanalysis of definiteness marking and concord in Danish and Icelandic DPs in terms of licensors, a new category that is argued to be implicated in agreement processes alongside controllers, targets and agreement morphology itself. Katzir’s proposal is attractive in that it unifies definiteness marking and gender, number, case concord analytically, where much existing literature focusses exclusively on definiteness marking. Additionally, under Katzir’s analysis quite substantial morphosyntactic differences between Danish and Icelandic DPs are reduced to a single syntactic difference, namely the structural position of attributive adjectives.

We argue here that Katzir’s analyses of Danish and Icelandic are empirically untenable and suggest that the morphosyntax of these languages does not, in the end, support the existence of licensors. The trouble with Katzir’s licensors, we contend, is that they are at
once too abstract—to account for the surface form of certain DPs one needs to appeal to ad
hoc phonological processes and irregularities—and too concrete—in both Danish and Ice-
landic there are DP types which under Katzir’s analysis require a licensor for definiteness
agreement, but there is no licensing morpheme in sight. Secondly, the assumption that a
licensor must c-command the agreement morpheme it licenses requires unlikely and unmo-
tivated structures for certain kinds of DPs. While these structures are required for Katzir’s
analysis of Danish and Icelandic nominal morphology, they run into serious trouble when
considering the distribution of nominals in argument positions (Danish) and the possible
outcomes of NP-ellipsis (Icelandic).

Concretely, we document two kinds of problems for the licensor analysis. The first
problem we dub TOO FEW LICENSORS and show that it arises in a range of Danish and
Icelandic DPs where the realizer of definiteness agreement is present, but unlicensed. This
problem is resolved, we propose, by dispensing with licensors and accounting for definite-
ness agreement solely in terms of a definite controller. Both languages also display the in-
verse challenge, namely TOO MANY LICENSORS, and in both languages this arises because
the morphological exponent of concord is treated as a licensor, as opposed to a realizer of
the agreement in question. Consequently, we advocate a leaner theoretical understanding
of agreement: there are agreement controllers, agreement targets and agreement features,
but no fourth category of agreement licensors.

We begin, in section 2, by laying out the architecture and motivation for Katzir’s licen-
sor analysis of agreement. In section 3, we examine the licensor analysis of definiteness
and gender marking in Danish DPs and argue that it comes up short once a broader range
of data is considered. Section 4 does the same for Icelandic, and we close each section
with a sketch of an alternative licensor-free analysis of the data under consideration. We
conclude, in section 5, with a more general assessment of the licensor-based analysis.
2 Licensing theory

In addition to “spreaders” (underlying loci of agreement features), the features themselves, and “realizers” (the agreement morphemes that express the features), agreement (more properly, concord) systems involve “licensors”: elements (i.e. morphemes) that are neither spreaders nor realizers, but intermediaries necessary for the licensing of features and the expression of features by realizers. In this view every agreement feature (whether expressed or not) is subject to three conditions:

(i) It must be spread by a spreader (the mechanism for this is unclear);

(ii) It must be c-commanded (in a newly invented sense) by a licensor for that particular feature;

(iii) it must not be c-commanded by more than one licensor of the relevant kind (a consequence of the ECONOMY condition).

Realizers and Licensors are morphemes, introduced by GRAMMAR via statements such as Katzir’s (8a) “-en is a suffix”, (8b) “-n can attach to N and d-, but not to A”, and (10) “FDEF is realized as -e on all modifying As.” Spreaders might be morphemes too, as in the case of neuter nouns, which are the spreaders of the feature FNt, but, as hinted in footnote 6, p. 52, there might not actually be any “spreader” at all. In any case there are mechanisms whereby elements of specified categories in a specified domain (the “spreading domain”) receive a particular feature. A distinct mechanism allows licensors for that feature to attach to specified categories of elements, apparently without any direct relation to the distribution of features they are to license. Realizers are introduced by a mechanism that states the shape of the morpheme that realizes a particular feature on a particular kind of element, subject to the condition that that element is c-commanded by the host of the right kind of licensor.
The most striking feature of this theory of agreement is that the licensor for a given feature is not taken to express that feature, nor even (it seems) to necessarily be attached to an element bearing the feature. Licensors are introduced by rules of grammar that do not mention the feature that they license at all. This raises the question of how licensors themselves are licensed. They must be licensed in some way, since we do not find, for example, the $F_{\text{DEF}}$ licensor -en any where else but in definite nominal phrases, where (absent ellipsis or other superficial deformation) there will be at least a $N$ bearing $F_{\text{DEF}}$ that needs licensing. The answer must be that a licensor that doesn’t license anything would be superfluous, and the expression containing it ruled out by Economy.

This means, in effect, that the same spreader that spreads a feature defines the domain in which the corresponding licensor can exist; and the spreading domain also determines where realizers can appear. So the spreader and the licensor together license the appearance of realizers, but the spreader also licenses the licensor.

The essence of a Licensor account is that “spreaders” (whatever they are) license two kinds of elements: licensors and realizers. Both can be subject to GRAMMAR, which specifies where they can attach. Their interaction is then subject to two constraints:

(i) Every realizer of a feature $F$ must be c-commanded by (the host of) at least one licensor for $F$;

(ii) structures with superfluous licensors are thrown out.

The claim of Katzir’s paper is that this view of things leads to analyses superior to the best analyses available in a theory without the distinction between licensors and realizers.
3 Danish

Inflection in Danish DPs is sensitive to definiteness (indefinite vs. definite), number (singular vs. plural) and gender (common vs. neuter). Definiteness is inherent to D and is marked on either D or N, and also marked on adjectives. Gender is inherent on N and marked on D and A, and number is marked on D, A and N. There is no morphological case in Modern Danish, except for pronouns. The table in (1) gives the forms for the articles, and the table in (2) the inflectional paradigm for attributive adjectives (examples of inflected DPs are provided in the following subsections).

(1) Danish articles

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(2) Danish adjectival inflection

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<td>NEUTER</td>
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The traditional understanding is that adjectives show gender and number concord, whereas definiteness marking on A is characterized in terms of strong (indefinite) declension vs. weak (definite) declension. In contrast Katzir analyzes the entire paradigm in terms of agreement with privative features, specifically a definite feature $F_{DEF}$ and a neuter feature $F_{Nt}$. Katzir doesn’t discuss number, but since plural is the overtly marked value, it would presumably involve a privative plural feature $F_{Pl}$. 
3.1 Definiteness marking: too few licensors

The licensing analysis of Danish definiteness marking inside DPs assumes a definiteness feature, $F_{\text{DEF}}$, which is associated syntactically and semantically with a definite head, which Katzir tentatively identifies as $D$ (see his discussion of this and other analytic possibilities on p. 48, and in footnotes 15 and 20). From there, $F_{\text{DEF}}$ spreads to all modifying adjectives, where it is realized as the suffix -e, and to the head noun, where it has no morphological realization. The licensor for $F_{\text{DEF}}$ is the morpheme -en, which may attach to the definite head, yielding a surface definite article *den*, as well as to the head noun, yielding a suffixed definite noun (N-en). Only in the former position does -en c-command attributive adjectives, which explains the obligatory use of the prenominal article in the presence of attributive adjectives: these adjectives bear $F_{\text{DEF}}$, which must be licensed under c-command and only by attaching the licensor -en to $D$ is that structural requirement met. Double definiteness marking is ruled out by an economy condition on licensors: if two structures are identical except for licensors, the one with more licensors is ungrammatical (Katzir’s (12) p. 52).¹

(3) *Good: -en on d c-commands both A and N*

```
Y
   /\  \
  X   NP
  /\    /\  \
 X  -en (AP) NP
 /\    /\  \
 d    A  N
  \
  /\  \
 gamle hest
```

This analysis accounts well for the data in (4)–(7) below.
(4)  den gaml-e  hest
      the  old-DEF horse
      ‘the old horse’

(5)  * gaml-e  hest-en
     old-DEF horse-DEF
     Intended ‘the old horse’

(6)  hest-en
     horse-DEF
     ‘the horse’

(7)  * den (gaml-e) hest-en
     the  old-DEF horse-DEF
     Intended ‘the old horse’

In (4), the definite head has spread agreeing definiteness features onto A (gaml) and N (hest). Both instances of $F_{\text{DEF}}$ are licensed by -en (attached to a dummy d to form den) under c-command, accounting for the well-formedness of (4) and the presence of the -e suffix on the adjective. (5) is illformed because -en is too low in the structure (attached to N) to c-command the adjective, and thus the definiteness feature on A is unlicensed. When no adjective is present, as in (6), only the definiteness feature on N needs licensing and that is accomplished by -en suffixing to N itself. Finally, (7) is ungrammatical because it contains two licensors where only one is needed: the -en that attached high (to dummy d-) is in a position to license $F_{\text{DEF}}$ on both A and N, so the lower instance of -en on N is not needed. Redundant licensing is ruled out by the Economy condition.

In the remainder of this section we show that this licensing analysis of definiteness agreement cannot be maintained once we consider a larger set of DP types.

First note that adjectives in possessive DPs show identical inflection to adjectives in
DPs headed by the definite determiner; compare (8) to (4) above.

(8) \[\text{min gaml-e hest} \]
    \[\text{my old-DEF horse} \]
    \[\text{‘my old horse’} \]

Under the licensing analysis, the presence of the definiteness realizing morpheme -\(e\) on the adjective in (8), indicates that (8) contains the definite licensing morpheme -\(en\) as well. Following Katzir’s decomposition of the definite article \(den\) into a dummy \(d\) and -\(en\), we can decompose \(min\) in (8) into a possessive root \(mi-\) and the definite licensor -\(en\).² The possessive pronoun is high enough in the structure (specifier of DP) to c-command attributive adjectives, and, by virtue of attaching to the possessive pronoun, so is the licensor -\(en\), and the definite agreement on the adjective is properly licensed. So far so good. But then consider the licensing of definite -\(e\) in attributive adjectives in possessive DPs with nonpronominal possessors, as in (9):

(9) \[\text{Peter-s gaml-e hest} \]
    \[\text{P-POSS old-DEF horse} \]
    \[\text{‘Peter’s old horse’} \]

By the reasoning above, we need to posit the presence of the definite licensor -\(en\) to account for the definite agreement -\(e\) on the adjective. Moreover the licensor -\(en\) must c-command the adjective, since licensing takes place under c-command. The possessive clitic -\(s\) c-commands the adjective so that would be an appropriate host for the licensing morpheme, but there is no indication that the surface form \(s\) contains the definite licensor -\(en\). An alternative analysis is that possessive \(s\) is itself a licensor for the definiteness feature on \(A\). That analysis respects the surface form of the possessor (\(Peters\), not \(Peter-en-s\) or \(Peters-en\)) and accounts for the grammatical presence of definite agreement on the adjective in (9). Positing a second licensor for \(F_{\text{DEF}}\) seems within the spirit of Katzir’s analysis; the
main difference between the two licensors of $F_{\text{DEF}}$ is that -s is also implicated in the syntax of possession, whereas the sole function of -en is licensing of definite agreement.

If -en and s are both licensors of definite inflection on A, as suggested by the identical inflection of A in (4), (8), and (9), we expect them to not co-occur, given Katzir’s economy principle. But they do, as shown in (10), which contains two definite licensors: s and -en:

(10)    Peter-s  den gaml-e  hest
        P-POSS  the  old-DEF horse
        'Peter’s old horse’

Possessive pronouns similarly co-occur with the definite article, as shown in (11). Under the decomposition of min into mi- plus -en, required for (8) above, this DP thus contains two separate instances of the definite licensor -en.

(11)    min  den gaml-e  hest
        my  the  old-DEF horse
        'my old horse’

The possessive examples in (8)-(11) thus create a dilemma for the licensing analysis of Danish definiteness marking: either there is no definite licensor in (8) and (9), and we have no account of these examples, or there are too many licensors in (10) and (11), and we have no account of their wellformedness. (10) and (11) violate economy just as (7) does, and yet the former are grammatical and the latter is not. Note that this dilemma is entirely absent from licensor-free accounts of definiteness inflection: all we need to say is that definite D (den) and possessive D (s and min) are all able to control definiteness agreement on A.

The second type of DP that we want to draw attention to is vocative DPs, which to our knowledge have not played much of a role in the literature to date, but are directly relevant for Katzir’s analysis. In vocative DPs attributive adjectives obligatorily bear the definite -e suffix and do so in the absence of a definite article, as shown in (12).
(12) a. kær-e ven
dear-DEF friend
‘dear friend’

b. gaml-e dreng
old-DEF boy
‘old boy’

c. sød-e Lise
sweet-DEF L.
‘sweet Lise’

This configuration poses a special challenge for the licensing account of definite agreement on adjectives. First, a null definite D head has to be posited to host and spread $F_{DEF}$ onto the adjective. That much is shared with licensor-free accounts, unless they take the -e form of the adjective as the unmarked, default form. In addition, the licensing analysis must posit a null licensor for $F_{DEF}$, since there is no overt element present in these DPs that could plausibly serve as the licensor. If we admit a null licensor for definite agreement on attributive adjectives, the question arises as to why that licensor cannot be used in definite DPs in argument position. That is, why is (13) ill-formed?

(13) * Jeg besøgte { kære ven / gamle dreng / søde Lise}.

I visited dear friend / old boy / sweet Lise

Intended ‘I visited my dear friend/the old boy/the sweet Lise.’

This points to a general problem: the licensing approach ties definite inflection on A directly to the presence of a particular morpheme, namely -en, but -e in fact has a wider distribution than -en, suggesting that the two must be disentangled, and the distribution of -e tied solely to the presence of the definite feature $F_{DEF}$. The data above shows that $F_{DEF}$ is inherent on a range of functional nominal heads, including the definite article, and pos-
sessive and vocative D-heads. Consequently these heads all control definite agreement on attributive adjectives.

3.2 Neuter gender: too many licensors

Katzir identifies the suffix -t as a licensor of neuter gender agreement in Danish, where previous analyses treat it as a realizer of such agreement. Neuter gender agreement arises from a neuter gender feature F_{Nt} being spread, presumably from N, onto A and D. In definite neuter DPs, -t occurs exactly once, namely on the definite article, and attributive adjectives bear the -e suffix familiar from the discussion of definite agreement above (see 14a). In indefinite neuter DPs, -t occurs on the indefinite article and on each attributive adjective (14b).

(14) a. de-t stor-e gul-e håndklæde
   the-NT big-DEF yellow-DEF towel
   ‘the big yellow towel’

   b. e-t stor-t gul-t håndklæde
      a-NT big-NT yellow-NT towel
      ‘a big yellow towel’

Katzir suggests that this morphological difference stems from a syntactic difference: the definite article, but not the indefinite one, c-commands attributive adjectives. This is so because only the definite article resides in D; the indefinite article is not a D, but an adjective.

Thus a definite DPs like det gamle hus has something like the structure on the left, whereas the corresponding indefinite DP, et gammelt hus, has something like the structure on the right (we say “something like” because Katzir doesn’t commit to the identity of the functional head that hosts the definite licensor -en; here we treat den as D, which is one of the options suggested by Katzir in fn 20):
According to Katzir “an affix c-commands everything its attachment site c-commands or dominates” (p 54, (17)). In (15), the licensor -t in D c-commands the attributive adjective by virtue of D c-commanding the adjective. The single licensor -t in D thereby licenses the neuter agreement feature that has been spread onto the adjective. Consequently, no additional licensors of neuter on the adjective are required, accounting for the wellformedness of (14). By economy, no additional neuter licensor is possible, accounting for the impossibility of *de-t gamle-t hus, where the attributive adjective contains a redundant licensor for the neuter gender feature. In (16), however, the licensor -t on et does not c-command the adjective gammel, because the adjective en itself does not c-command the lower adjective. Consequently, each adjective in an indefinite DP needs its own -t licensor. This is what accounts for the obligatory -t suffix on each adjective in (14b) above.

The analysis of en as an adjective is central to Katzir’s account of gender concord in Danish and he offers some positive empirical evidence for it (discussed below). However, the data in (17) and (18) point to a serious syntactic problem with this proposal:
(17)  a. * Jeg fandt håndklæde i tasken.
   I found towel in bag.DEF
   Intended: ‘I found a/the towel in the bag.’

b. Jeg fandt et håndklæde i tasken
   I found a towel in bag.DEF
   ‘I found a towel in the bag.’

(18)  a. * Jeg fandt gul-t/gul-e håndklæde i tasken
   I found yellow-NT/yellow-DEF towel in bag.DEF
   Intended: ‘I found a/the yellow towel in the bag.’

b. Jeg fandt et gult håndklæde i tasken
   I found a yellow-NT towel in bag.DEF
   ‘I found a yellow towel in the bag.’

c. Jeg fandt det gul-e håndklæde i tasken.
   I found the yellow-DEF towel in bag.DEF
   ‘I found the yellow towel in the bag’

The example (17a) has a bare count noun (håndklæde ‘towel’) in object position and the sentence is illformed, in accord with Danish requiring nominal arguments to be DPs and the language lacking a null determiner for singular count nouns. (In the terms of Chierchia (1998), Danish is a [+pred, -arg] language whose nominals require a determiner to be able to function as arguments.) The wellformed example in (17b) differs from (17a) only in having the indefinite et present. If et is an adjective it is mysterious why it should enable an NP to function as an argument. Regular adjectives like gul cannot serve this function, as the ungrammaticality of (18a) shows. But if et is a determiner, we have a principled account of this pattern: (17a) and (18a) are ungrammatical because their object is not a DP, but only an NP. (17b), (18b) and (18c) are all grammatical because their object argument is
a DP. (17b) and (18b) are headed by the indefinite D et and (18c) is headed by the definite
determiner det.

Katzir’s positive evidence for en being an adjective comes from examples like (19a) where
the form ene appears in a definite DP after the definite determiner and effects a
partitive interpretation; compare the partitive translation of (19a) to the regular definite
translation of (19b):

(19)  a. det ene hvide krus
    the one white mug
    ‘one of the white mugs’

     b. det hvide krus
     the white mug
     ‘the white mug’

Though not discussed by Katzir, there is further evidence for an adjectival form ene
from examples like (20) where ene is in predicative position and coordinated with another
adjective:

(20)  Han er ene og hjæpeløs.
      he is one and helpless
      ‘He is alone and helpless.’

So we are not disputing that Danish has an adjective ene, but we are disputing the
stronger claim that en and et are also adjectives, and thus Katzir’s analysis of neuter gend-
der concord in noun phrases like (14b) above. Instead we maintain the more traditional
assumption that et is an indefinite determiner in (14b) as well as in (17b) and (18b). This
assumption affords us a principled account of the contrast between the a and b examples in
(17) and (18): the a examples lack the determiner required for argument position, but the b
examples have a determiner in the form of the indefinite determiner et.
At this point, we would like to draw attention to the quantifier *hver* ‘each’, which is not discussed by Katzir, but relevant in that it shows the exact same behavior as the indefinite article. First, like the indefinite article, *hver* elevates a bare NP to argument status, as shown by the contrast between the ungrammatical (21a) and the grammatical examples in (21b) and (21c).

(21)  

a.  * Billede koster 300 kroner.  
picture.NT costs 300 crowns  
Intended: ‘A/The picture costs 300 crowns.’

b.  E-t billede koster 300 kroner.  
a-NT picture.NT costs 300 crowns  
‘A picture costs 300 crowns.’

c.  Hver-t billede koster 300 kroner.  
each-NT picture.NT costs 300 crowns  
‘A picture costs 300 crowns.’

Secondly, any adjective following *hver* shows neuter inflection if the head noun is neuter (22a), just as they do following the indefinite article (22b)

(22)  

a.  hver-t ny-t stor-t billede  
each-NT new-NT large-NT house.NT  
‘each new large picture’

b.  e-t ny-t stor-t billede  
a-NT new-NT large-NT house.NT  
‘a new large picture’

Finally, as both sets of examples show, *hver* and *en* both inflect for gender, bearing the neuter suffix -t in the presence of the neuter head noun *billede* ‘picture’. Thus the morphosyntax associated with *hver* replicates the issue raised by the indefinite article: if *hver*
is just an adjective, how come it behaves as a determiner syntactically?

Our interpretation of these data is that *en* and *hver* are not adjectives, but determiners. This is how they license otherwise bare NPs in argument position. But if they are determiners they c-command attributive adjectives inside NPs and that in turn means that the neuter licensing -t that they contain c-commands the neuter agreement feature on the adjectives and, by economy, no separate -t licensor should be possible on attributive adjectives in such DPs, contrary to fact.

To summarize, Katzir’s licensor-based analysis of Danish definiteness and gender marking fails empirically in three respects. It does not account for the behavior of possessive DPs, which either have too few or too many licensors for the agreeing definiteness feature on A. It does not account for the use of definite agreement on adjectives in vocative DPs, which do not contain the definite licensor -en. And, if *en* and *hver* are determiners, as their role in establishing argument status strongly suggests, then it does not account for the occurrence of neuter -t on adjectives in DPs headed by *et* and *hvert*. The -t on the determiner itself should suffice, as it does in definite DPs.

### 3.3 Licensor-free concord

Katzir identifies definite -en and neuter -t as licensors, of $F_{DEF}$ and $F_{Nt}$ respectively. Above we argued that neither identification is viable and proposed that -en (or, rather, the definite article *den*) is a controller of definite agreement, along with possessive and vocative D, and that -t is a realizer of neuter agreement. We conclude our discussion of Danish by defending the status of -t as a realizer, since Katzir raises an explicit objection to that assumption.

Katzir’s objection is that, if -t is a realizer of neuter agreement, we would expect -t to surface on adjectives also in definite DPs headed by neuter Ns, but such As only bear the definite -e suffix. Compare the inflection on the adjective in the indefinite (23) and the
definite (24).

(23) et gul-t håndklæde
    a yellow-NT towel
    ‘a yellow towel’

(24) det gul-e håndklæde
    the yellow-DEF towel
    ‘the yellow towel’

Under Katzir’s analysis, licensing -t is required on A in (23) because the licensing -t on e- is too low in the structure to c-command F_Nt on A, and ruled out in (24) because the licensing -t on the definite article is high enough (in D) to c-command F_Nt on A. Above we criticized this analysis on syntactic grounds: it relies on analyzing the indefinite article as an adjective and the distribution of indefinite noun phrases argues against this assumption. Here we want to draw attention to bare plurals, which behave like singular definite DPs, but don’t contain a c-commanding licensor for F_Nt on A. The relevant pattern is illustrated in (25):

(25) a. * {gul-t/t/-e/-e-t} håndklæd-er
                yellow-NT/-NT-PL/-PL-NT towel-PL
                Intended ‘yellow towels’

b. gul-e håndklæd-er
       yellow-PL towel-PL
       ‘yellow towels’

The grammatical realization of a plural neuter DP has just the plural suffix -e on the attributive adjective (as in (25b)). Any attempt to add the neuter -t is ungrammatical, as seen in (25a). This is strikingly like the situation in definite singular neuter DPs—see (24), where A bears just definite -e and no neuter -t—, but Katzir’s account of the definite singulars
cannot be extended to the plural indefinites, since there is no -t-bearing c-commanding D to license $F_{\text{NT}}$ on A in (25b).

This observation casts further doubt on the licensor analysis of -t, but also presents a problem for the realizer analysis of -t that we advocate: why is adjectival neuter gender agreement only realized in the form of -t in singular, indefinite DPs? The traditional answer invokes syncretism: gender agreement is neutralized in both definite and plural DPs. The syncretic form -e can thus realize a multitude of feature combinations, as seen in the paradigm below (repeated from (2) above).

(26) Danish adjectival inflection

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<tr>
<td>NEUTER</td>
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While we do not develop a fully explicit analysis here, Distributed Morphology offers a way to improve upon the traditional analysis, while retaining a realizer analysis of neuter -t, alongside plural/definite -e. The analysis assumes full syntactic agreement on A for definiteness, number and gender, and relies on Paninian competition between variously specified Vocabulary Items to derive the impoverished morphological realization of this agreement. Concretely, we assume -t and -e are the morphological realization of postsyntactic AGR nodes (Noyer, 1997), which are adjoined to their hosts. Concretely, we posit the Vocabulary Items in (27) to account for Danish adjectival inflection.

(27) a. AGR, [INDEF, SG, NT] $\leftrightarrow$ -t
    b. AGR, [INDEF, SG] $\leftrightarrow$ -Ø
    c. AGR $\leftrightarrow$ -e
Neuter -t is the most highly specified Vocabulary Item (VI), and thus will only surface in indefinite, singular, neuter DPs like (23). Neuter -t cannot surface in plural DPs, because the insertion rule for -t specifies singular. That is what accounts for the ill-formedness of (25a). Similarly, -t cannot surface on A in definite DPs, since -t is specified as indefinite. This is what accounts for Katzir’s observation that -t is absent in definite singular neuter DPs like (24).

The feature specifications of the other two VIs, -Ø and -e, also match the adjectival feature specification in indefinite singular neuter DPs like (23), but, by the Subset Principle (Halle, 1997), each of them loses out to -t, because -t is more highly specified than either of them. This accounts for the ungrammaticality of the examples in (28) and (29).

(28) * et gul-e håndklæde
     a yellow towel
     Intended ‘a yellow towel’

(29) * et gul-ø håndklæde
     a yellow towel
     Intended ‘a yellow towel’

The -e inflection on A in a definite singular DPs like (24) is due to insertion of the VI in (26c), which is the only one that matches the definite feature on A. Similarly, -e is the only option in plural DPs, since the featural specification of -t and -Ø both require singular specification of the adjective. This accounts for the pattern in (25), which is not accounted for by Katzir.

We find zero inflection of A in indefinite singular common gender DPs, as shown in (30).

(30) en gul-Ø/*t/*e vaskeklud
     a.CG yellow     wash.cloth.CG
‘a yellow wash cloth’

Here -t is impossible, because it has a conflicting gender specification, and -Ø wins out over -e because -Ø is more highly specified than -e. In all other cells of the paradigm (27), including definite plural DPs, the adjectival inflection is -e, i.e. the elsewhere case in our analysis.

We put forth this alternative analysis of adjectival agreement to counter Katizir’s suggestion (fn. 29) that existing analysis of the alternation between pre- and postnominal definiteness marking, like that of Hankamer and Mikkelsen (2005), are difficult to integrate with an analysis of adjectival agreement. The licensor-free analysis of adjectival agreement sketched above is fully compatible with the analysis of definiteness marking developed in Hankamer and Mikkelsen (2005). A complete analysis should specify the syntactic mechanism for adjectival agreement and also account for the inflection on articles, possessive pronouns and quantifiers like hver, but we leave that for a future occasion and turn now to Icelandic.

4 Icelandic

Katzir brings Icelandic into the picture to help support what he suggests is the only assumption that is not “plausible enough” independent of his approach: the position of adjectives in Danish. He notes that, by changing the position of adjectives, he can account for the difference in definite marking in the two languages. Specifically, he proposes an analysis of Icelandic where adjectives are complements to nouns instead of adjoined to NP (as in Danish). This is schematized in (31).
Notice that adjectives in this position are in the c-command domain of the suffixed definite article (-in- in Icelandic) under Katzir's definition; for Katzir’s analysis of Danish, it was crucial for adjectives adjoined to NP be outside of the suffixed article’s c-command domain.

The prediction that follows from this change is that Icelandic would have the same patterns of gender and definiteness marking as Danish, with the exception that all instances of $F_{\text{DEF}}$ and $F_{C2}$ (a combination of gender, number, and case, which is the counterpart to $F_{NI}$ in Danish) on the adjectives could be licensed by the suffixed article. Thus, as Katzir puts it, “there will be no need for a prenominal definiteness marker.” This is indeed what we find— the suffixed article is used even with adjectival modifiers, as we see in (32).6 The Icelandic patterns are schematized in (33).

(32)  

<table>
<thead>
<tr>
<th>a.</th>
<th>?? hinn gul-i hest-ur</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>the yellow-NOM.M.SG.DEF horse-NOM.M.SG</td>
</tr>
<tr>
<td></td>
<td>Intended: ‘the yellow horse’</td>
</tr>
<tr>
<td>b.</td>
<td>gul-i hest-ur-in-n</td>
</tr>
<tr>
<td></td>
<td>yellow-NOM.M.SG.DEF horse-NOM.M.SG-DEF-NOM.M.SG</td>
</tr>
<tr>
<td></td>
<td>‘the yellow horse’</td>
</tr>
<tr>
<td>c.</td>
<td>hest-ur-in-n</td>
</tr>
<tr>
<td></td>
<td>horse-NOM.M.SG-DEF-NOM.M.SG</td>
</tr>
<tr>
<td></td>
<td>‘the horse’</td>
</tr>
</tbody>
</table>
(33) a. Indefinite: [Adj – C2] [N – C1] 

b. Definite: [Adj – v] [N – C1 – in – C2]

In the schematic representation in (33), C2 corresponds to Danish -t, -in- corresponds to Danish -en, and v corresponds to the Danish F_{DEF} realizer -e. C1 is a suffix that has no correlate in Danish. C1 attaches only to nouns (including proper nouns) and indicates gender, number, and case.

Katzir asserts that Icelandic is essentially Danish': a language with the same spreaders, realizers, and licensors as Danish, but with adjectives occupying a different structural position. If this is so, then it provides support for Katzir’s licensors as a part of grammar rather than a quirk of Danish. In this section, we will first show that licensors in Icelandic suffer from the same general problems as in Danish. Icelandic is a great test case for the claim that what are traditionally described as agreement suffixes/realizers (Danish -t and Icelandic C2) are actually licensors, since the nominal morphology in Icelandic is much less impoverished than that of Danish. When we consider C2, we again find instances of TOO FEW LICENSORS and instances of TOO MANY LICENSORS.\(^7\) The fact that the licensing approach to marking runs into the same problems in Icelandic despite the change in adjective position suggests that the licensing approach is in systematic trouble: there are no morphemes in either language that behave like licensors are supposed to behave. Thus, we conclude, there is no justification for the additional functional element that Katzir proposes. Furthermore, we show that empirical evidence from other domains does not support Katzir’s structural assumptions about adjectives in Icelandic, thus providing further evidence against an account of Icelandic as Danish'.
4.1 The C2 suffix is not a licensor

The suffix that Katzir identifies as C2 is traditionally described as an agreement suffix, indicating the gender, number, and case of the DP in which the C2 suffix appears. Katzir proposes that the C2 suffix is just like Danish’s -t suffix in being a licensor. However, it is worth pointing out that the C2 suffix is much more prevalent than the -t suffix. Icelandic distinguishes four cases (nominative, accusative, dative, and genitive), three genders (masculine, feminine, and neuter), and two numbers (singular and plural). While Danish -t only appears in DPs that are neuter and singular, C2 suffixes appear for every combination of gender, number, and case. Thus, in contrast to -t, neither gender, number, nor case values will affect whether we see a C2 suffix on adjectives. The full paradigm for C2 suffixes is given below:

\[\begin{array}{cccccc}
\text{SINGULAR} & \text{PLURAL} \\
\text{MASC} & \text{FEM} & \text{NEUT} & \text{MASC} & \text{FEM} & \text{NEUT} \\
\text{NOM} & -(u)r/l/n & -\emptyset & -t & -ir & -ar & -\emptyset \\
\text{ACC} & -an & -a & -t & -a & -ar & -\emptyset \\
\text{DAT} & -um & -ri & -u & -um & -um & -um \\
\text{GEN} & -s & -rar & -s & -ra & -ra & -ra \\
\end{array}\]

It will be clear in section 4.1.2 why we refer to these as the “default” concord markers.

There are two reasons to suspect that C2 is not a licensor responsible for licensing \(F_{C2}\) on modifiers in Icelandic. First, there are several different examples where there appears to be an instance of \(F_{C2}\) but either (i) no C2 suffix at all, or (ii) no C2 suffix that is clearly in a position to license features. As with vocatives in Danish, these are instances of too few licensors, and we would expect these structures to be ruled out by \textsc{grammar},
which requires all instances of $F_{C2}$ to be licensed. Second, data from concord in Icelandic presents several examples where $C2$ surfaces even though its licensing capabilities are not needed due to the presence of another $C2$ suffix that is capable of licensing every instance of $F_{C2}$ in the structure. Reminiscent of Danish gender agreement on A in the presence of $et$ or $hvert$, these are instances of too many licensors, and we expect these to be ruled out by ECONOMY, which prefers structures with fewer licensors. We will consider these in turn, concluding this section by arguing that it is perfectly reasonable to treat $C2$ as a realizer, and in fact, this gives us a simple way to explain its complementarity with the $v$ suffix.

4.1.1 Weak adjectives: too few licensors

Following Katzir’s analysis of Danish, let us assume that there is a spreader (or speaders) responsible for spreading gender, number, and case features to the various elements in the Icelandic DP:

\begin{equation}
\text{-in}, \text{ all modifying As, Qs, demonstratives, numerals, and possessive pronouns have } \quad F_{C2,\xi}, \text{ where } \xi \text{ corresponds to the gender, number, and case values of the noun.}
\end{equation}

The rule above is on par with the rule of $F_{N1}$ spreading for Danish. Just as in Danish, all instances of $F_{C2}$ must be licensed by a licensor, which Katzir suggests is the suffix he identifies as $C2$. In this section, we will consider some examples of phrases where there appear to be too few licensors— specifically, instances where an adjective appears with the $v$ suffix, traditionally called the “weak” form, with no instance of a c-commanding $C2$ licensor. This is problematic, because per (35), every adjective should have an instance of $F_{C2}$, and every instance of $F_{C2}$ must be licensed by a $C2$ suffix. The examples in this section apparently have unlicensed instances of $F_{C2}$ and should thus be ruled out by GRAMMAR, counter to fact.
The first instance comes from possessive constructions. With pronominal possessors, the definite article is generally required on possessed nouns (see Sigurðsson (2006) for details):

(36) a. bók-in mín
    book-the my
    ‘my book’

However, there are (at least) two classes of nouns that are exceptions to this generalization. Certain kinship terms (37) and certain abstract nouns (38) either disallow or do not require the definite article in possessive constructions:

(37) a. vinur(*-inn) mín
    friend-the my
    ‘my friend’

(38) skoðun(*-in) mín
    opinion-the my
    ‘my opinion’

When these possessed nouns are modified by adjectives, those adjectives must (or can) show the weak form:

(39) a. best-i vinur mín
    best-v friend my
    ‘my best friend’

According to Katzir’s assumptions, the adjectives in (39) have instances of F_{C2} that must be licensed by a c-commanding licensor: the C2 suffix. Since the adjectives themselves do
not have C2 suffixes in (39), there are two remaining possibilities. Either the possessive pronoun (in this case, minn) has a C2 suffix or the noun itself has one.

In fact, the possessive pronoun does have what looks like a C2 suffix. As one of Katzir’s reviewers noted, possessive pronouns decline almost exactly like the definite article. Katzir argues convincingly that the definite article in Icelandic also bears a C2 suffix, and under Katzir’s account, this explains the loss of the C2 suffix on adjectives when the definite article is present. Following Sigurðsson (1993); Julien (2005); Norris (2011), we assume a reasonable location for Icelandic possessors is Spec,NP, which places the C2 suffix on the possessive pronoun in a position to c-command the adjective, thus licensing its instance of F_{C2}.

This works well for the DPs in (39)— the suffix on minn c-commands the instance of F_{C2} on the adjective, eliminating the need for an additional suffix on the adjective. However, it runs afoul of the more standard possessive constructions in (36a). Recall that most nouns require the presence of the suffixed article in addition to the possessive pronoun. The C2 suffix in (40) c-commands not only the adjective, but the noun as well. This in turn would mean that it would c-command the definite suffix attached to the noun. We therefore expect the C2 suffix on minn to render the C2 suffix on the definite article superfluous. This
is clearly not the case: whenever the definite article is present, it must have the agreement suffix identified by Katzir as C2. This is a similar problem to what we saw for Danish in the qualified definiteness construction.

The other option is that there is a C2 suffix on the noun. The concord marker on nouns is not C2—though there is a high degree of overlap in form between the C1 and C2 suffixes, they are not identical. We could perhaps say that there is a null definite article on the nouns in these constructions, and that the definite article has a null C2 suffix. This would require stipulating a null definite article with an extremely constrained distribution (as definite articles must normally be overt), and it would require an additional C2 licensor that is phonologically null and can only attach to phonologically null elements. At best, this is an unmotivated patch, and at worst, it is an unfalsifiable proposal. Since both possibilities for licensors for the instance of $F_{C2}$ on the adjective run into problems, we consider possessive constructions an instance of too few licensors.

As in Danish, some vocatives involving adjectives can have the adjective in the weak form (see (41)), though the strong form is also possible (42).

(41) a. kær-u vin-ir
   dear-v friends-C1
   ‘dear friends’ (Svavarsdóttir and Jónsdóttir, 1998, 136)

   b. góð-a fruí-∅
   good-v married.woman-C1
   ‘dear Mrs. X’ (letter opening) (Einarsson, 1949)

(42) a. góð-ir fundargest-ir
   good-C2 meeting.guests-C1
   ‘good guests’ (Svavarsdóttir and Jónsdóttir, 1998, 136)
As with possessives, we assume that the spreading rule has applied as normally, and the adjectives in these examples have F\(_{C2}\). Katzir’s approach predicts the marking in (42): the adjectives have instances of F\(_{C2}\), and all instances of F\(_{C2}\) must be licensed by a C2 suffix. This is exactly what we see. However, in (41), the suffix attached to the adjective is not C2, but the realizer v, the so-called weak inflection. Vocative phrases like those in (41) thus provide a second instance of an adjective appearing in weak form with no C2 licensor in sight. With no C2 suffix to license the F\(_{C2}\) on the adjectives, we would be forced to posit a null licensor for C2. Without independent evidence for such null elements or explanations of their distribution, vocatives constitute a second example of too few licensors.\(^8\)

We have thus far seen that, like their Danish counterparts, possessives and vocatives in Icelandic have too few licensors to account for their morphological realization. Next, we turn to two examples that are unique to Icelandic. The first involves superlative adjectives. Superlative adjectives in Icelandic decline just like regular adjectives— they have both strong declensions (C2) and weak declensions (v). Due to the constructions in which superlatives most often appear (i.e., with definite nouns), superlative adjectives showing the weak form are usually in DPs with the definite article. However, Svavarśdóttir and Jónsdóttir (1998) give some examples of superlatives occurring with nouns that have no article that must nevertheless be in the weak form:

(43) a. Dýjórsá is the longest river in Iceland.

\(\text{Dýjórsá er leng-st-a á á Íslan-d-i.}\)

\(\text{Dýjórsá is long-SUPER-v river in Iceland-DAT}\)

‘Dýjórsá is the longest river in Iceland.’
b. Kinverj-ar eru fjölmenn-ast-a þjóð í heim-i.

Chinese.person-NOM.M.PL are populous-SUPER-v nation in world-DAT

‘The Chinese are the most populous people in the world.’

c. Jón Páll var sterk-ast-i maður í heim-i.

J P was strong-SUPER-v man in world-DAT

‘Jón Páll was the strongest man in the world.’

In the examples in (43), the superlative adjectives are all in the so-called weak form— they all bear the suffix that Katzir calls v, and none of them bears C2. While the DPs in question might be interpreted as definite, there is no definite article present, and thus, there is no C2 suffix. Presumably, these adjectives bear F_{C2} just like any normal adjective, but there does not appear to be anything to license that instance of F_{C2}.

Finally, when nonrestrictive adjectives are used with proper names in Icelandic, the adjective must (or may) show weak inflection. We can see this in example (44):

(44) a. Anna litl-a fékk dúkk-u.

A little-v got doll-ACC.F.SG

‘Little Anna got a doll.’ (Julien, 2005, p. 16)

b. Siggi glaði

S happy-v

‘happy Siggi (Siggi, who is happy)’

First, we should note that the adjective here appears after the name— not the standard position for adjectives. Julien (2005) attributes this to movement of the name to Spec,DP, under the assumption that names are nouns. The morphology present on names in Icelandic also suggests that names are nouns, as they decline just like nouns, bearing C1 suffixes instead of C2 suffixes. The examples in (44) are slightly irregular in that they are names showing the so-called ‘weak declension’ for nouns, which is identical to the weak declension of ad-
jectives, but only in the singular. In any case, it is clear that names do not bear C2 suffixes, and thus, the instance of F_{C2} on the adjectives above is apparently unlicensed.

In this section, we saw examples of unlicensed instances of F_{C2} from four domains: possessives, vocatives, superlative adjectives, and proper names. Under Katzir’s approach, we expect these to be ruled out by GRAMMAR, but they are in fact perfectly grammatical. Let us now turn our attention to concord in Icelandic, which provides several examples of too many licensors.

4.1.2 Concord: too many licensors

Icelandic has a rich system of concord in gender, number, and case. Adjectives and the definite article (among other things, as we will soon see) have different forms depending on the gender, number, and case of the DP. Just as in Danish, the endings that adjectives take are different in definite and indefinite contexts, as we can see in (45) (Katzir’s (40)).

(45) gul + hest ‘yellow horse’ masc.

<table>
<thead>
<tr>
<th></th>
<th>Indefinite</th>
<th>Definite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adj-C2</td>
<td>gul-ur</td>
<td>hest-ur</td>
</tr>
<tr>
<td>N-C1</td>
<td>gul-i</td>
<td>hest-ur-in-n</td>
</tr>
<tr>
<td>Nom.</td>
<td>gull-an</td>
<td>hest</td>
</tr>
<tr>
<td>Acc.</td>
<td>gull-a</td>
<td>hest-in-n</td>
</tr>
<tr>
<td>Dat.</td>
<td>gull-um</td>
<td>hest-i</td>
</tr>
<tr>
<td></td>
<td>gull-a</td>
<td>hest-in-um</td>
</tr>
<tr>
<td></td>
<td>gull-s</td>
<td>hest-s</td>
</tr>
<tr>
<td></td>
<td>gull-a</td>
<td>hest-s-in-s</td>
</tr>
</tbody>
</table>

Katzir’s analysis aims to assimilate the C2 ending to the Danish -t and the ν ending to the Danish -e (i.e., treat C2 as a licensor of F_{C2} and ν as a realizer of F_{DEF}). The idea, then, is that ECONOMY will rule out structures with superfluous instances of C2, just as neuter -t on attributive adjectives in Danish is ruled out by the presence of a licensing neuter -t on the definite article. Katzir has little to say about ν— we assume for the moment that
\( v \) is exactly parallel to Danish -\( e \) (i.e., a realizer of at least \( F_{\text{DEF}} \)), but we will return to \( v \) in section 4.2.\(^{10}\)

Katzir restricts his discussion to Icelandic DPs containing at most an adjective and a definite article (as in ((32a))–((32d)) above).\(^{11}\) However, it is not only adjectives and definite articles that bear C2 suffixes. As noted by Norris (2012), there are at least six different word classes bearing C2 suffixes in Icelandic. The various elements can be seen in (46), and a representative set of examples (one for each gender) is given in (47).

(46) Word classes bearing C2 suffixes in Icelandic:

- a. Quantifiers: \( \text{all-ur} \) ‘all’, \( \text{sum-ur} \) ‘some’, \( \text{engin-n} \) ‘none’
- b. Demonstratives: \( \text{þess-i} \) ‘this’, \( \text{sá} \) ‘that/the one’, \( \text{hin-n} \) ‘the other’
- c. Numerals: \( \text{tve-ir} \) ‘two’, \( \text{þrí-r} \) ‘three’, \( \text{fjóir-ir} \) ‘four’
- d. Adjectives: \( \text{lítil-l} \) ‘little’, \( \text{gul-ur} \) ‘yellow’, \( \text{falleg-ur} \) ‘pretty’
- e. definite article: \( \text{-in-n} \)
- f. Possessive pronouns: \( \text{mín-n} \) ‘my’, \( \text{þin-n} \) ‘your.SG’, \( \text{sin-n} \) ‘3.REFL’s’

(47) a. all-ir hin-ir littl-u snigl-ar-n-ir mín-ir fjóir-ir
   all-C2 other-C2 little-v snail-C1-DEF-C2 my-C2 four-C2
   ‘all the other four little snails of mine.’ \[\text{MASCULINE}\]

b. all-ar hin-ar littl-u bæk-ur-n-ar mín-ar fjóir-ar
   all-C2 other-C2 little-v snail-C1-DEF-C2 my-C2 four-C2
   ‘all the other four big books of mine.’ \[\text{FEMININE}\]

c. öll-∅ hin-∅ littl-u hús-∅-in-∅ mín-∅ fjögur-∅
   all-C2 other-C2 little-v house-C1-DEF-C2 my-C2 four-C2
   ‘all the other four little houses of mine.’ \[\text{NEUTER}\]

Though there are some instances of suppletion and a bit of variation (e.g., in the demonstratives \( \text{þess-i} \) and \( \text{sá} \)), the default concord markers can be represented as in (34), repeated
We assume these are the markers that Katzir refers to as C2, as these are unquestionably the endings that surface on strong adjectives in the language.

(34) Default concord markers in Icelandic (= Katzir’s C2)

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th></th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MASC</td>
<td>FEM</td>
<td>NEUT</td>
</tr>
<tr>
<td>NOM</td>
<td>-(u)r/l/n</td>
<td>-∅</td>
<td>-t</td>
</tr>
<tr>
<td>ACC</td>
<td>-an</td>
<td>-a</td>
<td>-t</td>
</tr>
<tr>
<td>DAT</td>
<td>-um</td>
<td>-ri</td>
<td>-u</td>
</tr>
<tr>
<td>GEN</td>
<td>-s</td>
<td>-rar</td>
<td>-s</td>
</tr>
</tbody>
</table>

Katzir proposes that these suffixes are akin to the Danish -t— that is, they are licensors. Under Katzir’s proposal, these C2 suffixes serve the purpose of licensing a feature (F_{C2}). Recall that licensing is done by c-command—every instance of F_{C2} must be c-commanded by a licensing C2 suffix. Under Katzir’s analysis, multiple instances of the same licensor indicates a lack of a c-command relationship between the elements hosting the licensors. As in Danish (see section 3.2), the required structures are implausible on syntactic grounds.

Let us consider again the examples in (47). Aside from the adjective and noun, every element in (47) that bears a concord marker is bearing what looks like C2, for a total of five instances of C2 (quantifier allur ‘all’, demonstrative hinn ‘other’, definite article -inn, possessive pronoun minn ‘my’, and numeral fjörir ‘four’). For Katzir’s proposal to be correct, there can be no c-command relationships between any of those elements. If there were a c-command relationship between any of them, then at least one of them would be superfluous (i.e., not necessary to license any instances of F_{C2}). ECONOMY would then rule out the structure with a superfluous instance of C2. For example, the quantifier allur ‘all’ has been argued to head its own projection at the top of DP (Sigurðsson, 1993), as in (48), which would put it in a position to c-command the definite article, among other things.
While the structure in (48) is slightly abbreviated (indicated by the dotted line), the C2 licensor on allur ‘all’ clearly c-commands the instance of FC2 on all as well as the instances of FC2 on everything else in the DP. This is enough to license every instance of FC2. Since Katzir’s ECONOMY prefers structures with fewer licensors, this predicts that a structure with only one instance of C2 (on allur) would be preferred over a structure with five instances of C2. As the ungrammaticality of the following examples shows, this prediction is not borne out:

(49) a. * all-ir hin-(u) litl-u snigl-ar-n-(u) mín-(u) fjór-(u)
    all-C2 other-(v) little-v snail-C1-DEF-(v) my-(v) four-(v)
    Intended: ‘all the other four little snails of mine’ [MASCULINE]

b. * all-ar hin-(u) litl-u bæk-ur-n-(u) mín-(u) fjór-(u)
    all-C2 other-(v) little-v book-C1-DEF-(v) my-(v) four-(v)
    Intended: ‘all the other four big books of mine’ [FEMININE]

c. * öll-∅ hin-(u) litl-u hús-∅-in-(u) mín-(u) fjór-(u)
    all-C2 other-(v) little-v snail-C1-DEF-(v) my-(v) four-(v)
    Intended: ‘all the other four little houses of mine’ [NEUTER]
The examples in (49) involve only one instance of C2 (on allur ‘all’), one instance of C1 (on the noun), and five instances of v, which is exactly what Katzir’s proposal predicts under the accepted structure of nominals in Icelandic (see, for example, Delsing (1993); Sigurðsson (1993, 2006); Vangsnès (1999); Julien (2005); Norris (2011)). The only grammatical way to use those words together in a nominal phrase is as in (47), where every element bears a C2 suffix except the adjective and noun, which bear v and C1, respectively. The examples in (49) and everything in between (49) and (47) are ungrammatical.

This is inconsistent with the part of Katzir’s analysis that treats C2 as a licensor, and thus, it is a clear reason to reject such an analysis of C2. A full discussion of nominal phrase internal syntax in Icelandic is beyond the scope of the current work, so we refer the readers to the works cited. Analogous arguments to the argument made for allur could be carried out for the other C2 hosts in (46). The only way for Katzir’s morphological account to explain the data in (47) and (49) would be to say that there are no c-command relations between any of the elements in the nominal phrases in (47). Such an assertion would be untenable in the context of the other work that has been done on nominal phrase syntax in Icelandic.

4.1.3 Icelandic: C2 Summary

We just looked at two broad kinds of evidence against Katzir’s claim that C2 is a licensor: (i) instances where there appear to be too many licensors— that is, more than are needed to license all instances of F_{C2}, and (ii) instances where there appear to be too few licensors to license all of the instances of F_{C2}. The distribution of C2 is inconsistent with the distribution of a licensor as predicted by both GRAMMAR (some instances of F_{C2} are left unlicensed) and ECONOMY (some instances of C2 are superfluous).
4.2 Icelandic without licensors

If C2 is not a licensor, then what is it? We would like to claim that C2 is a realizer, just like -t in Danish. Katzir does not explicitly argue against a realizer analysis of C2, so we simply consider the argument he made against Danish -t being a realizer. Recall that -t only surfaces on adjectives in neuter, singular, indefinite DPs— in definite DPs, all adjectives bear the realizer suffix -e. Katzir argues that, if -t is a realizer (say, of F_{Nt}), then we would expect to see it surface on adjectives with the feature F_{Nt}. The fact that there is no -t on adjectives in definite DPs in Danish is thus puzzling for a realizer account. As Katzir notes, “whatever gender/number features spread onto the adjectives are presumably the same in the definite and indefinite form” (pp. 59-60). In section 3.3, we suggested that the reason -t apparently disappears is morphological: the system of adjectival inflection in Danish is severely impoverished, and, in fact, indefinite plural adjectives bear the same realizer -e as definite adjectives. Given that Icelandic’s morphology is much richer, it is worth revisiting the argument against the realizer analysis of -t/C2.

Katzir’s argument against a realizer treatment of -t does not extend to Icelandic C2, as the gender/number/case distinctions are not fully neutralized in the definite form. This is clear from the definite forms in (50-51):

(50) Definite adjectives in Icelandic (nominative):

a. gul-i hest-ur-in-n
   yellow-v horse-C1-DEF-C2
   ‘the yellow horse’ (masc)  
   (Katzir’s (40))

b. gul-a kinn-∅-in-∅
   yellow-v cheek-C1-DEF-C2
   ‘the yellow cheek’ (fem)  
   (Katzir’s (47))
Definite adjectives in Icelandic (accusative):

a. gul-a hest-∅-i-n
   yellow-v horse-C1-DEF-C2
   ‘the yellow horse’ (masc) (Katzir’s (40))

b. gul-u kinn-∅-in-a
   yellow-v cheek-C1-DEF-C2
   ‘the yellow cheek’ (fem) (Katzir’s (47))

c. gul-a barn-∅-i-ð
   yellow-v horse-C1-DEF-C2
   ‘the yellow child’ (neut) (Katzir’s (48))

In Icelandic, this v suffix is traditionally called the “weak declension” of adjectives (as in the other Germanic languages). This is the suffix that appears on adjectives in the place of the C2 suffix when that adjective is contained in a (roughly) definite DP (Sigurðsson, 2006). This declension paradigm is given in (52).

(52) Weak (definite) declension paradigm for adjectives in Icelandic (= Katzir’s v)

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MASC</td>
<td>FEM</td>
</tr>
<tr>
<td>NOM</td>
<td>-i</td>
<td>-a</td>
</tr>
<tr>
<td>ACC</td>
<td>-a</td>
<td>-u</td>
</tr>
<tr>
<td>DAT</td>
<td>-a</td>
<td>-u</td>
</tr>
<tr>
<td>GEN</td>
<td>-a</td>
<td>-u</td>
</tr>
</tbody>
</table>

These v endings are not random, and while some featural information is lost in the
paradigm, some of it is also preserved. These adjectives are still marked for gender, number, and case. Given that Danish’s inflection is in general more impoverished than inflection in Icelandic, it is not surprising that gender and number information is totally neutralized in the definite and plural forms in Danish. As for why C2 is apparently absent from the definite form of adjectives in Icelandic, we would like to say that it is due to the fact that both C2 and \( \nu \) realize the same terminal node. In Distributed Morphology terms, the \( \nu \) suffix and the C2 suffix compete for insertion.

C2 and \( \nu \) are actually only a part of the system of nominal agreement suffixes in Icelandic. Comparative adjectives in Icelandic are often described as having a weak inflection (like \( \nu \)), but in fact, the paradigm for comparative adjectives is even more impoverished than the \( \nu \) paradigm. There is also the suffix that Katzir identifies as C1. It attaches only to nouns (including proper names), and though there are some similarities between C1 and C2, they are distinct suffixes. The paradigms for comparative adjectives and C1 are given below.\(^{15}\)

\begin{equation}
(53) \text{Comparative adjective endings (CAE) in Icelandic}
\end{equation}

<table>
<thead>
<tr>
<th>NEUT.SG</th>
<th>ELSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-a</td>
<td>-i</td>
</tr>
</tbody>
</table>

\begin{equation}
(54) \text{Declension paradigm for agreement suffixes on nouns in Icelandic (= Katzir’s C1)}
\end{equation}

<table>
<thead>
<tr>
<th></th>
<th>SINGULAR</th>
<th>PLURAL</th>
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<tbody>
<tr>
<td></td>
<td>MASC</td>
<td>FEM</td>
</tr>
<tr>
<td>NOM</td>
<td>-(u)r/l/n/∅</td>
<td>-∅</td>
</tr>
<tr>
<td>ACC</td>
<td>-∅</td>
<td>-∅</td>
</tr>
<tr>
<td>DAT</td>
<td>-(i)</td>
<td>-∅</td>
</tr>
<tr>
<td>GEN</td>
<td>-s</td>
<td>-ar</td>
</tr>
</tbody>
</table>
Thus, there are essentially four different realizers in Icelandic: C2, v, CAE, and C1. We assume the following Vocabulary Item schematics, ignoring precise featural specifications of the nodes, as we are only concerned here with what drives the choice between C2 and v, and not how the various forms of those suffixes are calculated.

(55) Vocabulary Items for Icelandic concord markers:

a. AGR, [ξ] ↔ C1 / N
b. AGR, [ξ] ↔ CAE / COMPARATIVE

c. AGR, [ξ, DEF] ↔ v / A

d. AGR, [ξ] ↔ C2

We use ξ to represent combinations of gender, case, and number features, and we follow work by Embick (2010) in assuming that allomorphy can be determined under linear adjacency (indicated by ⊳). The analysis is straightforward. C1, CAE, and C2 all realize identical feature sets. Because C1 and CAE have a more specified distribution, they are in a Paninian relationship with C2. Per the Subset Principle, C1 and CAE should always win over C2, and they do: nouns and comparative adjectives never bear the C2 suffix. In contrast, v and C2 realize different feature sets: v also realizes definiteness, whereas C2 does not. Thus, again by the Subset Principle, if the node undergoing insertion consists of [ξ, DEF], then we expect v to be inserted instead of C2. C2 is only inserted if none of these conditions are met (e.g., if the adjective does not have the feature [DEF]). This analysis also explains why the majority of elements bear the C2 suffix (it is the elsewhere case) and why it is only adjectives that change inflection in definite DPs (v only attaches to adjectives).

While we acknowledge that this is simply a sketch of an analysis, we believe it is a very promising direction for an analysis treating C2 as a realizer instead of a licensor.
4.3 Icelandic is not Danish'

We close the section on Icelandic by returning to Katzir’s initial suggestion regarding Icelandic: that Icelandic is Danish’, a language that is identical to Danish, with respect to the topics under discussion, except for the structural position of adjectives. Specifically, he suggests that Icelandic APs are complements to N. The proposed structure is repeated below:

(31) ... 
(D)  NP
     /   \
    AP   N
   /     \
  N     DEF

As far as we can tell, the main motivation for treating Icelandic as Danish’ is to support the licensor-based analysis of definiteness and gender marking. As Katzir notes, changing this aspect of the structure leads to surprisingly different predictions about the marking we expect to see. If those predictions are borne out, then that would be convincing support for the proposal.

As we have tried to show in the preceding sections, many of these predictions are not borne out, which casts doubt on the utility of the Licensor category. Although the main motivation for Katzir’s analysis of Icelandic APs was the distribution of licensors, this does not necessarily mean that the structure Katzir proposes for Icelandic APs must be abandoned as well. However, we believe that there are other reasons to reject Katzir’s proposal for Icelandic APs, and we would like to briefly discuss the matter before concluding our paper.
4.3.1 Noun phrase ellipsis can strand adjectives in Icelandic

For reasons of space, we restrict ourselves to the one piece of independent evidence that one of Katzir’s reviewers alludes to: ellipsis (see Katzir’s fn. 24). Katzir’s structural position for adjectives would seem at first blush to prohibit structures with multiple adjectives, as the noun only has one complement position. However, Katzir works around this by suggesting that the APs can “adjoin . . . to one another first, attaching the result to NP as a single constituent.” (p. 61). If we allow this possibility, we can account for DPs with multiple adjectives, as in (56).

\[
(56) \quad \cdots \quad (D) \quad \text{NP} \\
\quad \text{AP} \quad \text{N} \\
\quad \text{AP}_1 \quad \text{AP}_2 \quad \text{N} \quad \text{DEF} \\
\quad \cdots A_1 \cdots \quad \cdots A_2 \cdots
\]

Given such a structure, there is a very clear prediction about nominal ellipsis: it should be impossible to elide one adjective together with the noun, and leave behind another adjective. \(^{17}\) This prediction turns out to be false.

\[
(57) \quad \text{Haraldur vildi kaupa} \underline{\text{raudan bil}} \underline{\text{en ekki þann stóra.}} \\
\quad \text{H wanted to.buy red car but not that big} \\
\quad \text{‘Haraldur wanted to buy a red car, but not the big one (= red car).’}
\]

\[
(58) \quad \text{Haraldur vildi kaupa} \underline{\text{stórt, brúnt hú}} \underline{\text{s en hann keypti lítíð í staðinn.}} \\
\quad \text{H wanted to.buy big brown house but he bought little in the.place}
\]
‘Haraldur wanted to buy a big, brown house but he bought a little one (= brown house) instead.’

(59) Bandaríkjamenn drekka léttan bjór og þykir kaldur bestur.

Americans drink light beer and consider cold best

‘Americans drink light beer and consider cold (light beer) best.’

The examples in (57-59) illustrate several possible candidates for an ellipsis process targeting nominals in Icelandic. In each case, an adjective (underlined) is stranded before the position that the nominal would be if overt. In addition, the antecedent (bolded) includes an adjective that does not surface in the elided version– we assume it is elided along with the noun. If adjectives formed one large constituent, we would expect either all of them to remain or all of them to be elided. Given that some adjectives can be elided and some can be left behind, this suggests that the adjectives do not adjoin to each other first and then merge with N(P). Katzir notes that ellipsis would be a good test to determine whether his proposal for the constituency for adjectives is on the right track, but the data in (57-59) suggest that, if anything, it is on the wrong track. Adjectives, in fact, appear to be stacked by adjunction to NP, as is commonly assumed. 18

5 Conclusion

We have focused on cases where, under a Licensor analysis, there are either too few or too many licensors. From these cases we conclude that both of the central assumptions of Licensing theory are unsustainable: neither can it be required that every Feature have a Licensor, nor can the Economy principle hold.

In contrast, we have sketched licensor-free alternative analyses that avoid the problems faced by licensors. Our licensor-free alternatives do not “unify” definiteness marking and gender marking, which was one of the claimed strengths of Katzir’s analysis. Definiteness
and gender do intersect in that, in Danish and Icelandic, adjectives inflect for both, but we believe the two are not intimately linked in the way that Katzir presumes. Indeed, as we showed for Icelandic, gender is not fully neutralized in any context; in contrast to Katzir, we have suggested the apparent neutralization in Danish is the result of morphological syncretism rather than syntactic principles. In short, there is no very good reason to believe that definiteness and gender have anything to do with each other.

We have said nothing about the part of Katzir’s paper that deals with Greek, but will simply observe that if the plausibility of that analysis rests on support provided by the analyses of Danish and Icelandic, it is poorly supported.

We conclude with some observations about the relative transparency of licensor-based and licensor-free analyses. Katzir starts from a world where we have two elements involved in agreement processes: spreaders (or controllers) and realizers. We would like to point out that once Katzir adds a third, namely licensors, one of the other two mysteriously disappears. In the case of definiteness, we lose a spreader. Rather than controlling definiteness agreement, the definite article (or the suffix -en) licenses $F_{\text{DEF}}$, and some other element (a null functional head associated with definiteness) controls the agreement. In the case of gender, we lose the realizer. Traditionally, and in our analysis, -t is treated as a realizer of neuter agreement. Under Katzir’s analysis, neuter agreement happens by a rule of spreading, but it is never actually realized– in contrast to $F_{\text{DEF}}$, there is no morpheme that realizes $F_{\text{Ni}}$. We might ask how such an agreement process could come to be. If agreement involves licensors in addition to spreaders (or controllers) and realizers, then we would expect at least some cases of agreement where all three elements are overt. Strikingly, there are no such cases in Danish or Icelandic. Thus, the licensor-free account is not only more successful in accounting for the full range of data in Danish and Icelandic, but it is also formally simpler and more transparent.
Notes

1 Assuming that the “Economy” condition is universal, it is hard to see how Swedish, Norwegian, and Faroese, which have double definiteness of exactly the kind excluded here, could exist.

2 The source of the definite feature controlling the agreement on A is either the possessive or some null definiteness-related head. It does not matter which for our argument.

3 This construction is discussed in Hansen (1994) under the label ‘kvalificeret bestemthed’, which translates as “qualified definiteness”.

4 Under Katzir’s analysis the realizer of neuter agreement is consistently null. We return to this issue in the final section of the paper.

5 There are reasons to doubt that the final e in ene in examples like (20) is inflection. In fact, in the sense of ‘alone’ ene is the only form of the adjective. Notice that the second adjective in (20) does not carry a -e suffix, consistent with the generalization that predicative adjectives don’t show definiteness agreement. So the final e in ene in this example cannot be definiteness agreement. Also telling are examples like Barn-et er ene og hjælpeløs-t ‘child-DEF.NT is alone and helpless-NT’ where ene fails to show gender agreement. It is unclear to us whether ene in (19a) is an instance of this non-inflecting adjective ene or a separate adjective (or numeral) that does inflect for definiteness. Either way, our claim is that ene in (19a) cannot be identified with the indefinite determiner et in examples like (17b) and (18b).

6 Strictly speaking, (32a) is grammatical, but it is highly dispreferred in most contexts. The status of the prenominal definite article in Icelandic is quite complicated. As Katzir notes, some speakers state that it does not have the same meaning as the form with the suffixed article (as in (32b)). Furthermore, as noted by Thránsson (2007), there are some instances where the suffixed article is ungrammatical and the prenominal article is required. We follow Katzir in treating the prenominal article as a different syntactic element from the suffixed article.

7 The arguments from Danish against -en being a licensor of FDEF-e can straightforwardly be extended to Icelandic -in and v. We refrain from doing so for two reasons: (i) Katzir does not explicitly analyze -in as a licensor of FDEF and v as a realizer of FDEF, and (ii) the arguments against treating C2 as a licensor are more revealing.

8 We should note that some nouns in Icelandic have slightly irregular declension paradigms. For example, some nouns form the nominative plural with -ir and accusative plural with -i instead of the normal -ar and -a. The nouns gestur ‘guest’ and vinur ‘friend’ are two such nouns. This is just to say that the suffix on vinur
‘friends’ in (41) is not C2— evidence against such a proposal could be found in (42).

9 http://siggismalls.blogspot.com/2005/05/celibratyon-vitlaust-skrifa-g-veit-en.html

10 The distribution of the weak (\(=v\)) endings in Icelandic is more complicated than as presented here—treating it as an exponent of a definiteness may be an oversimplification. For discussion on adjective marking in Icelandic, see Pfaff (2009, In prep.).

11 The only exception is in footnote 44, where he notes that an LI reviewer pointed out that possessive pronouns in the language appear with what looks like C2 morphology, even in definite DPs. As Katzir notes, this is puzzling for his approach, since it suggests that the C2 on -\(in\) fails to license \(F_{C2}\) on the possessive pronoun. This is the subject of our discussion in this section (§4.1.2), and we will return to it momentarily.

12 We say “default” here, because there are (at least) 4 different concord marker paradigms in the language. Elements with concord markers distinct from the default set are: nouns/nominals (what Katzir calls C1), comparative adjectives, and the so-called ‘weak’ declension of adjectives (what Katzir calls \(v\)).

13 The three cells in Table 34 listed as -\(∅\) are not simply null– stems that these endings attach to are subject to \(u\)-shift, a pervasive morphophonological rule in Icelandic that fronts, rounds, and raises some or all instances of a in the stem.

14 In (49) we include the \(v\) suffixes as optional on everything but the adjective. With adjectives, we see an alternation between \(v\) and the C2 suffix depending on whether the adjective is c-commanded by another C2 suffix, so in these hypothetical examples, we might expect to see other elements bearing \(v\) since their C2 suffix is already licensed. On the other hand, if \(v\) suffixes only attach to adjectives, then perhaps we would expect to see nothing at all.

15 The C1 declension given in (54) is traditionally called the regular and strong declension for nouns in Icelandic. Of course, there are special declension classes to which many words belong, as well as words that are totally irregular in the sense that they comprise their own declension class. Furthermore, there is a “weak” declension of nouns as well— in the singular, they are identical to the \(v\) endings, but in the plural, they have their own forms. We believe it is reasonable to treat these “weak” C1 forms as simple declension classes.

16 Of course, there are also some elements that do not decline. There are some indeclinable adjectives (e.g., hissa ‘surprised’), and present participles (e.g., hlaupandi ‘running’) do not decline either. Einarsson (1949) notes that, historically, they declined like comparative adjectives, and such forms can still be found in the written language. Perhaps we could say that these words comprise a fifth class— those words that do not have realizers at all.

17 Such ellipsis processes are commonly assumed to elide constituents (cf. Lobeck 1995; Merchant 2001
It seems Katzir himself was aware of the difficulties his proposal might face, as he notes in footnote 43 and at the bottom of p. 67. He suggests a very tentative way forward, in which the category to which the definite article and adjectives attach is the same (i.e., by saying there is no difference between N and NP in Icelandic). Katzir would still require there to be a difference between A and AP, though—recall that that is how he prevented licensors on higher adjectives from licensing features on other adjectives. This would require simultaneously embracing and rejecting bare phrase structure, which we do not believe is a viable option.

References


Pfaff, Alexander (In prep.). “On the three sources of adnominal adjectives: evidence from Icelandic.” ms, University of Tromsø/CASTL.


