

Licensing trouble*

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Abstract

This paper addresses a recent proposal by Katzir (2011) for the existence of a new functional category called a LICENSOR. Drawing on data from Danish, Icelandic, and Greek, Katzir argues that incorporating licensors provides an elegant account of otherwise puzzling patterns of definiteness and gender marking in these languages. In this paper, we look beyond the data presented by Katzir, revealing morphological patterns in Icelandic and Danish that are predicted to be impossible under Katzir's theory. Thus, we contend that these languages do not support the existence of licensors. Instead, we propose an account within the framework of Distributed Morphology, arguing that the patterns of gender and definiteness marking seen in these languages are the result of competition for insertion between well-motivated vocabulary items. In a sense, then, we argue for a more traditional and theoretically simpler analysis of agreement in the languages.

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, and 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

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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 Icelandic 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 unmotivated 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 behavior of certain quantifiers (Danish) and the outcomes of possible NP-ellipsis constructions in 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 definiteness agreement solely in terms of a definite controller. Both languages also display the inverse 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 licensor 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

The theory of agreement advanced by Katzir recognizes four kinds of elements involved in agreement relationships. 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);¹
- (ii) It must be c-commanded² 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

¹For presentational convenience, we will ignore the possibility of “syncategorematic” introduction of the definiteness feature, hinted at in Katzir’s footnote 6 and assumed in Katzir’s (9), p. 52 (cf. footnote 15), since in any case the features to be spread must be introduced by some mechanism.

²Making use of a definition of c-command adapted from proposals by May (1985), Kayne (1994): “(17) An affix c-commands everything its attachment site c-commands or dominates” (p. 54).

of the ECONOMY³ condition).

Realizers and Licensors are morphemes, introduced by GRAMMAR via statements such as Katzir’s (8a) “-en is a suffix”, (8b) “-en can attach to N and *d*-, but not to A”, which state conditions on the occurrence of a “licensor”; and (10) “F_{DEF} is realized as *-e* on all modifying As,” which specify how agreement features are realized. In general it is very unclear what the syntax of licensors is. They seem to have no semantic function, and they do not appear to be syntactic heads—all of the licensors that Katzir proposes are affixes for which he does not propose a category label. In standard Distributed Morphology terms, they would have to be dissociated morphemes (Embick and Noyer 1999). But Katzir does not explicitly adopt either a minimalist or a DM framework, so it remains unclear what to expect about the syntax of licensors.

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_{DEF} licensor -en anywhere else but in definite nominal phrases, where (absent ellipsis or other superficial deformation) there will be at least a N bearing F_{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

³If S₁ and S₂ are identical except for licensors, and if S₁ has strictly fewer licensors than S₂, then S₂ is ungrammatical (Katzir, p. 52).

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

	Indefinite		Definite	
	SINGULAR	PLURAL	SINGULAR	PLURAL
COMMON	en	Ø/nogle	den	de
NEUTER	et	Ø/nogle	det	de

(2) Danish adjectival inflection

	Indefinite		Definite	
	SINGULAR	PLURAL	SINGULAR	PLURAL
COMMON	-Ø	-e	-e	-e
NEUTER	-t	-e	-e	-e

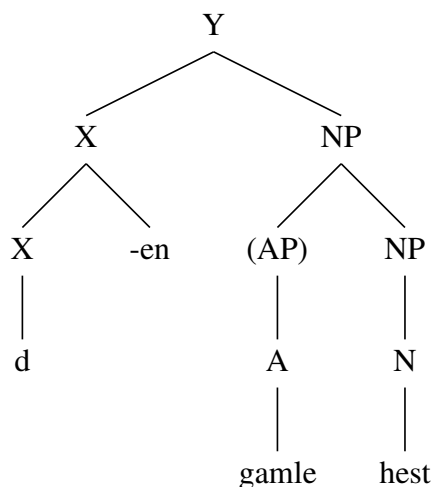
The traditional understanding is that adjectives show gender and number concord, whereas definiteness marking on A is characterized in terms of strong (indefinite) declension vs. weak (definite) declension. In contrast Katzir analyzes the entire paradigm in terms of agreement with privative features, 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_{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_{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_{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_{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)).⁴

⁴Assuming 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. Perhaps they could be given some kind of analysis involving movement, along the lines of that proposed by Katzir for Greek (which must be the intention of the suggestion in his fn. 19: "... perhaps... the preadjectival definiteness marker in these languages does not have the N within its licensing domain."), but Katzir does not offer one and we will not attempt to construct one.

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



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_{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_{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) min gaml-e hest
my old-DEF horse

‘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 licenser *-en*.⁵ 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 licenser *-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) Peter-s gaml-e hest
P-POSS old-DEF horse
‘Peter’s old horse’

By the reasoning above, we need to posit the presence of the definite licenser *-en* to account for the definite agreement *-e* on the adjective. Moreover the licenser *-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 licenser *-en*. An alternative analysis is that possessive *s* is itself a licenser for the definiteness feature on A. That analysis respects the surface form of the possessor (*Peters*, not *Peter-en-s* or *Peter-s-en*) and accounts for the grammatical presence of definite agreement on the adjective in (9). Positing a second licenser for F_{DEF} seems within the spirit of Katzir’s analysis; the main difference between the two licensers of F_{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 licensers 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 licensers: *s* and *-en*.⁶

- (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 licenser *-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 licenser in (8) and (9), and we have no account

⁵The 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.

⁶This construction is discussed in Hansen (1994, 112–113) under the label ‘kvalificeret bestemthed’ (Eng. ‘qualified definiteness’).

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.

Before we leave possessive DPs, we want to respond to a reviewer's query about the soundness of this argument. The reviewer's point is that if the qualified definiteness possessive construction means something different from the regular possessive construction, perhaps the two structures are not subject to ECONOMY and consequently there would not be too many licensors in the qualified definiteness possessives in (10) and (11). This is an important point. In his discussion of qualified definiteness possessives like (10) and (11), Hansen (1994, 113) notes that such possessives are only felicitous when the referent is assumed to be known to both speaker and hearer. The regular possessive construction is not subject to any pragmatic restrictions; it can be used whether the intended referent is known or new. This latter fact shows that Danish does have the morphosyntactic means to express the relevant pragmatic meaning (known referent) without *den*. Thus the possessive structure without *den* and the possessive structure with *den* can express the same meaning and when they do they are, consequently, subject to ECONOMY. We conclude that the existence of the two possessive constructions does present the licensing analysis with a dilemma: if definite *-e* is licensed in the regular possessive construction, as it must be for (8) and (9) to be accounted for, there are one too many *-e* licensors in the qualified definiteness possessives in (10) and (11) and yet these are grammatical.

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 visted 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 possessive and vocative D-heads. Consequently these heads all control definite agreement on attributive adjectives.

3.2 Neuter gender: too many licensors

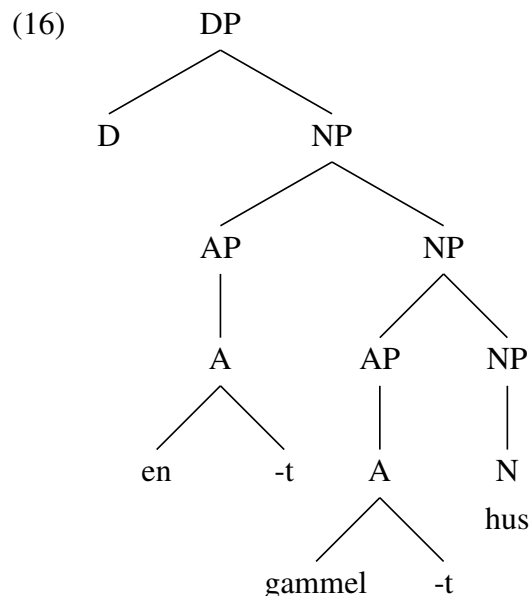
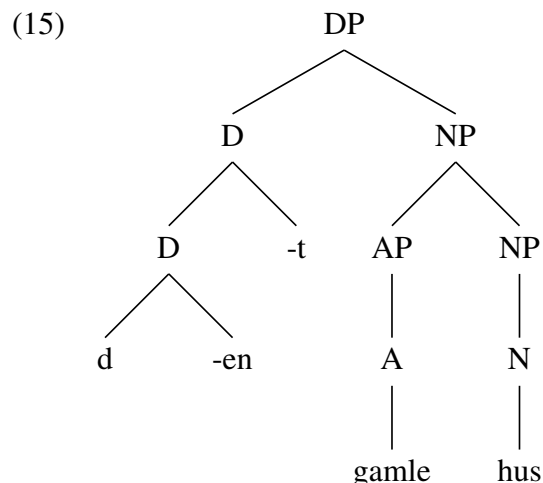
Katzir identifies the suffix *-t* as a licensor of neuter gender agreement in Danish, where previous analyses treat it as a realizer of such agreement.⁷ Neuter gender agreement arises from a neuter gender feature F_{Nt} being spread, presumably from N, onto A and D. In definite neuter DPs, *-t* occurs 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 “similar to an adjective” (Katzir, p. 61).

Thus a definite DP like *det gamle hus* has something like the structure in (15) whereas the corresponding indefinite DP, *et gammelt hus*, has something like the structure in (16) (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):

⁷Under Katzir’s analysis the realizer of neuter agreement is consistently null. We return to this issue in the final section of the paper.



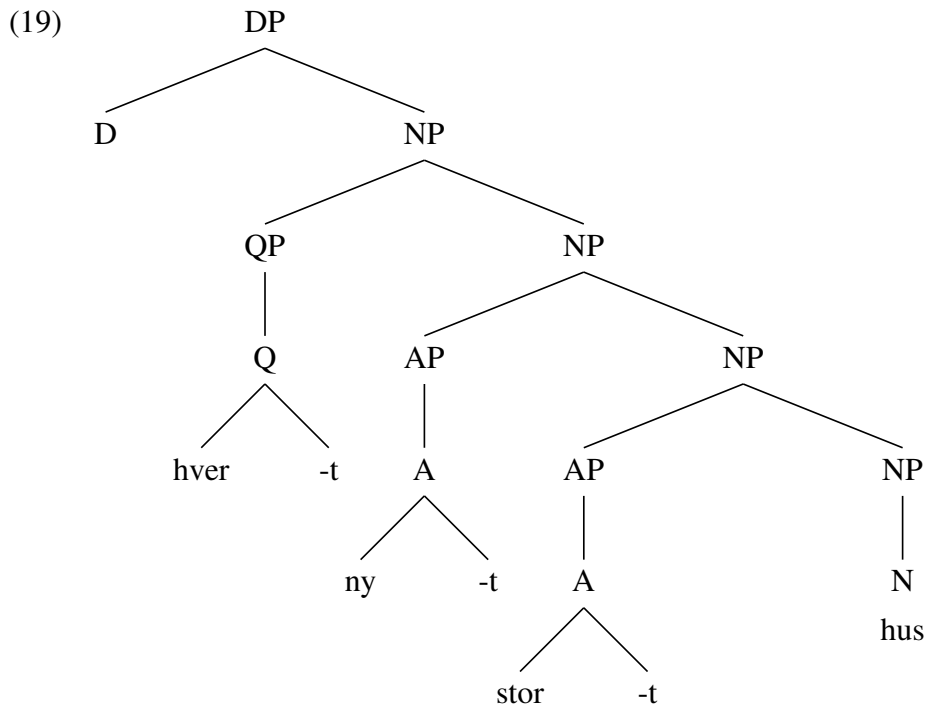
In (15), the licenser *-t* in D c-commands⁸ the attributive adjective by virtue of D c-commanding the adjective. The single licenser *-t* in D thereby licenses the neuter agreement feature that has been spread onto the adjective. Consequently, no additional licensors of neuter on the adjective are required, accounting for the wellformedness of (14). By economy, no additional neuter licenser is possible, accounting for the impossibility of **de-t gamle-t hus*, where the attributive adjective contains a redundant licenser for the neuter gender feature. In (16), however, the licenser *-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* licenser. This is what accounts for the obligatory *-t* suffix on each adjective in (14b) above.

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. Any adjective following *hver* shows neuter inflection if the head noun is neuter (17), just as they do following the indefinite article (18).

- (17) a. hver-t ny-t stor-t hus
 each-NT new-NT large-NT house.NT
 ‘each new large house’
 b. *hver-t ny stor hus
 each-NT new large house.NT
 Intended: ‘each new large house’
- (18) a. e-t ny-t stor-t hus
 a-NT new-NT large-NT house.NT
 ‘a new large house’
 b. *e-t ny stor hus
 a-NT new large house.NT
 Intended: ‘a new large house’

⁸In the sense of c-command introduced in Katzir’s (17), p. 54, and repeated in our fn. 2.

As these examples further show, *hver* and *en* themselves also inflect for gender, bearing the neuter suffix *-t* in the presence of the neuter head noun *hus* ‘house’. To account for the obligatory presence of *-t* on the adjectives following *hver* in (17a), the licensing analysis must consequently posit a structure in which *hver* does not c-command these adjectives. This is so because **if** *hver* did c-command these adjectives, the *-t* attached to *hver* would c-command the neuter gender feature F_{Nt} on *ny* and *stor* and thereby license F_{Nt} on *ny* and *stor* and obviate the need for separate licensing *-ts* on *ny* and *stor*. Thus, if *hver* c-commands *ny* and *stor*, ECONOMY makes the wrong predictions about (17): (17b) is predicted to be grammatical and (17a) to be ungrammatical, because (17b) has fewer F_{Nt} licensors, namely one, whereas (17a) has three. (Recall that under Katzir’s analysis *-t* is the licensor for F_{Nt} and the realizer of F_{Nt} is systematically null.) Note that similar examples where *ny* and *stor* bear the *-e* inflection are also ungrammatical, since *-e* is definite and the DPs in (17) and (18) are indefinite. So to account for the attested pattern of inflection, the licensing analysis must posit a structure for (17) in which *hver* does not c-command the following adjectives. Extending Katzir’s analysis of the indefinite article in (16) above, we arrive at the structure in (19) for (17a).⁹



In (19) *hver* does not c-command *ny* or *stor*, nor do the adjectives c-command each other. Consequently, a licensor *-t* is required on each of these three elements. The problem with (19) is that it treats *hver* as a fully formed adjunct phrase, which seems implausible to us, for the same reasons that it would be implausible to treat the English definite article *the* as a fully formed adjunct phrase. Neither can occur on their own and both occur in a fixed position within DP, namely preceding all adjectives. Neither can be coordinated with another prenominal phrase (such as an adjective) and neither can occur solo in predicative position. These are all properties that set *hver* and *the* apart from adjectives and they suggest that *hver* and *the* are heads that subcategorize for an NP. Their behavior is accounted for immediately if Danish *hver* and English *the* are functional

⁹Our argument does not depend on the category label of *hver*, only on its structural position in the tree. For concreteness we use QP for Quantifier Phrase.

heads in the extended nominal projections in the sense of Grimshaw 2005, but problematic if *hver* and *the* are phrasal adjuncts to NP, as shown for *hver* in (19). We thus conclude that (19) is not a reasonable syntactic structure for (17) and, as a consequence, the pattern of inflection in (17) stands as a challenge to the licensing analysis.¹⁰

This brings us to a more general objection to Katzir's analysis of Danish neuter *-t*. To ensure that a preceding attributive adjective does not c-command a following attributive adjective, Katzir must assume a unary projection between A and AP, as seen in the structures in (16) and (19). If that unary projection wasn't there, A would c-command NP and so would the licenser *-t* on that A, licensing F_{Nt} on any following adjectives. In the case of (16) this would yield the string in (20) with no *-t* on *gammel*. And in the case of (19), it would yield the string in (21) where there is no neuter *-t* on *stor*, because the *-t* on *ny* licenses F_{Nt} on both adjectives.¹¹ Both strings are ungrammatical.

- (20) * e-t gammel hus
a-NT old house.NT
Intended: ‘an old house’
- (21) * hver-t ny-t stor hus
each-NT new-NT large house.NT
Intended: ‘each new large house’

Unary projections are incompatible with some Minimalist conceptions of Bare Phrase Structure, in which projection is the result of Merge (Chomsky 1995).¹² A reliance on unary projection of this kind thus could be a theoretical liability. One of Katzir's reviewers notes this issue with respect to the licensing analysis needing to distinguish N from NP by unary projection to avoid generating the ungrammatical **stor-e hest-en* 'big-DEF horse-DEF' (p. 55). In response, Katzir says:

I should also mention that, while the labels N and NP may suggest that the two projections are related, all that matters for the current proposal is that they are distinct. One way to ensure that they are distinct is to let categories like N project phrasal categories like NP, but the discussion of licensing in this section would remain unaffected if NP were a different category, as long as this category is distinct from N. Such a category can be projected, perhaps, from a null head that takes the highest segment of N as its sister.

(Katzir 2011:55)

One could apply the same fix to APs and avoid a unary projection of AP from A by positing a null head that takes an A complement and then adjoins to NP. Without independent support for the

¹⁰A reviewer asks whether there is any reason to think that (19) is less plausible than (16). We believe that (19) is indeed less plausible than (16), as there is no evidence that *hver* has a separate life as an adjective, whereas there is evidence for an adjectival version of *et*, as shown by Katzir.

¹¹ If there is also no unary projection from Q to QP, we predict the string in (17b) with no *-t* on either adjective, since the *-t* on *hver* c-commands both adjectives.

¹²A reviewer noted that there are proposals within the Minimalist framework that make use of unary projections, e.g., Kayne (2010), Adger (2012). However, as far as we can tell, the use of unary projections from such proposals in the places where Katzir needs them would be no more principled than allowing unary projections in a theory like the one outlined in Chomsky 1995. Furthermore, there appears to be no principle in Adger's or Kayne's work that would force Self-Merge of A or Q in these derivations, and Katzir's analysis requires obligatory Self-Merge of A and Q to account for the obligatoriness of neuter *-t*.

existence of such a null head, this reanalysis is unconvincing, and the unary projection problem stands.

To summarize, Katzir’s licensor-based analysis of Danish definiteness and gender marking fails in four respects. First, 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. Second, it does not account for the use of definite agreement on adjectives in vocative DPs, which do not contain the definite licensor *-en*. Third, it does not account for the distribution of neuter *-t* in DPs headed by the quantifier *hver*, and fourth, the analysis of neuter *-t* in DPs with multiple adjectives relies on unary projection from A to AP, which is at odds with current theories of phrase structure.

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 (22) and the definite (23).

- (22) et gul-t håndklæde
 a yellow-NT towel
 ‘a yellow towel’
- (23) det gul-e håndklæde
 the yellow-DEF towel
 ‘the yellow towel’

Under Katzir’s analysis, licensing *-t* is required on A in (22) because the licensing *-t* on *e-* is too low in the structure to c-command F_{Nt} on A, and ruled out in (23) 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 adjunct. Such an analysis does not easily extend to *hver* ‘each’, which apparently fails to license F_{Nt} on any As even though its syntax makes it seem very similar to *den*. 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 (24):

- (24) 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 (24b)). Any attempt to add the neuter *-t* is ungrammatical, as seen in (24a). This is

strikingly like the situation in definite singular neuter DPs—see (23), 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_{Nt} on A in (24b).

This observation casts further doubt on the licenser 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 (Hansen and Heltoft, 2011, 227). The syncretic form *-e* can thus realize a multitude of feature combinations, as seen in the paradigm below (repeated from (2) above).

(25) Danish adjectival inflection

	Indefinite		Definite	
	SINGULAR	PLURAL	SINGULAR	PLURAL
COMMON	- \emptyset	-e	-e	-e
NEUTER	-t	-e	-e	-e

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.¹³ 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 (26) to account for Danish adjectival inflection.

- (26) a. AGR, [-DEF, SG, NT] \leftrightarrow *-t*
b. AGR, [-DEF, SG] \leftrightarrow \emptyset
c. AGR \leftrightarrow *-e*

The [-DEF] feature is copied from D, which is inherently [\pm DEF]. Note that we assume that [DEF] is a binary rather than a privative feature. The reason for this is that the simplest way to describe the adjectival inflection pattern is to treat the “definite” *-e* form as the elsewhere case, which is implemented in our DM account via underspecification.

Neuter *-t* is the most highly specified Vocabulary Item (VI), and thus will only surface in indefinite, singular, neuter DPs like (22). Neuter *-t* cannot surface in plural DPs, because the insertion rule for *-t* specifies singular. That is what accounts for the ill-formedness of (24a). 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 (23).

The feature specifications of the other two VIs, \emptyset and *-e*, also match the adjectival feature specification in indefinite singular neuter DPs like (22), 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 (27) and (28).

- (27) *et gul-e håndklæde
a yellow towel

¹³An alternative approach to weak adjective inflection employing impoverishment has been suggested in Noyer 1998, and such an analysis has been worked out in detail for German by Roehrs (2009). Thanks to an anonymous reviewer for drawing our attention to this.

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

The *-e* inflection on A in a definite singular DP like (23) is due to insertion of the VI in (25c), which is the only one that matches the definite feature on A. Similarly, *-e* is the only option in plural DPs, since the featural specifications of *-t* and *- \emptyset* both require singular specification of the adjective. This accounts for the pattern in (24), which is not accounted for by Katzir.

We find zero inflection of A in indefinite singular common gender DPs, as shown in (29).

- (29) en gul- $\{\emptyset/*t/*e\}$ vaskeklud
 a.CG yellow wash.cloth.CG
 ‘a yellow wash cloth’

Here *-t* is impossible, because it has a conflicting gender specification, and *- \emptyset* wins out over *-e* because *- \emptyset* is more highly specified than *-e*. In all other cells of the paradigm (26), 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 Katzir’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 licenser-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

As Katzir notes, the structural position of adjectives (adjuncts to NP) is crucial for his account. In that position, they are not c-commanded by the suffixed article, which means the suffixed article cannot license the F_{Nt} feature on adjectives. Under Katzir’s approach, this explains the fact that adjectives are only compatible with the prenominal definite article. To provide further support for licensors, Katzir notes that changing the position of adjectives slightly would lead to surprisingly different predictions about patterns of definiteness marking. Katzir thus brings Icelandic into the picture, proposing an analysis of Icelandic where adjectives are sisters to nouns instead of being adjoined to NP as in Danish. This is schematized in (30).

```

graph TD
    Root[... ] --- D[D]
    Root --- NP1[NP]
    NP1 --- AP[AP]
    NP1 --- N1[N]
    N1 --- N2[N]
    N1 --- Min[-in]

```

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_{DEF} and F_{C2} (a combination of gender, number, and case, which is the counterpart to F_{Nt} 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 (31).¹⁴

- ¹⁴While (31a) is grammatical, 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 (31b)). Furthermore, as noted by Thráinsson (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, but see Magnússon (1984), Sigurðsson (1993), Pfaff (2009) for a different view.

15

It is important to note here that, although (31) is grammatical, it is not in free variation with (31b)—the prenominal article and suffixed article are not completely equivalent from a semantic point of view (Thráinsson 2007). In that sense, the two are not in competition in Katzir’s sense. We will essentially ignore the prenominal article here, but interested readers should consult Sigurðsson 2006, Thráinsson 2007, Pfaff 2009, To Appear for thorough discussion. The Icelandic patterns are schematized in (32).

- (32) a. Indefinite: [Adj – C2] [N – C1]
 b. Definite: [Adj – WK] [N – C1 – *in* – C2]

In the schematic representation in (32), C2 corresponds to Danish *-t*, *-in-* corresponds to Danish *-en*, and WK corresponds to the Danish F_{DEF} realizer *-e*.¹⁶ 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 were so, then would provide 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.¹⁷ The fact that the licensing approach to agreement 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:

¹⁶Katzir uses “*v*” instead of WK in his paper; we avoid this abbreviation due to *v*’s ubiquity in a different role.

¹⁷The arguments from Danish against *-en* being a licensor of F_{DEF} /*-e* can straightforwardly be extended to Icelandic *-in* and WK. We refrain from doing so for two reasons: (i) Katzir does not explicitly analyze *-in* as a licensor of F_{DEF} and WK as a realizer of F_{DEF} , and (ii) the arguments against treating C2 as a licensor are more revealing.

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

	SINGULAR			PLURAL		
	MASC	FEM	NEUT	MASC	FEM	NEUT
NOM	-(u)r/l/n	- \emptyset	-t	-ir	-ar	- \emptyset
ACC	-an	-a	-t	-a	-ar	- \emptyset
DAT	-um	-ri	-u	-um	-um	-um
GEN	-s	-rar	-s	-ra	-ra	-ra

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 licenser 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 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 *hver*, 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 the fact that C2 and WK are never realized on the same node at the same time.

4.1.1 Weak adjectives: too few licensors

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

- (34) *-in*, all modifying As, Qs, demonstratives, numerals, and possessive pronouns have $F_{C2-\xi}$, where ξ corresponds to the gender, number, and case values of the noun.

The rule above is on par with the rule of F_{Nt} spreading for Danish (Katzir’s (29), p. 60). Just as in Danish, all instances of F_{C2} must be licensed by a licenser, which Katzir suggests is the suffix he identifies as C2. In this section, we will present some examples of phrases where there appear to be too few licensors—specifically, instances where an adjective appears with the WK suffix, traditionally called the “weak” form, with no instance of a c-commanding C2 licenser. This is problematic for the licensing analysis, because per (34), 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), Thráinsson (2007) for details):

- (35) a. *bók-in mín*
book-the my
‘my book’
- b. *hús-ið mitt*
house-the my
‘my house’

However, there are (at least) two classes of nouns that are exceptions to this generalization. Certain kinship terms (36) and certain abstract nouns (37) either disallow or do not require the definite article in possessive constructions:

- | | |
|---|---|
| <p>(36) a. vinur(*-inn) minn
friend-the my
'my friend'</p> <p>b. systir(*-in) mín
sister-the my
'my sister'</p> | <p>(37) a. skoðun(*-in) mín
opinion-the my
'my opinion'</p> <p>b. hugmynd(*-in) mín
idea-the my
'my idea'</p> |
|---|---|

Furthermore, as noted by a reviewer, even concrete nouns can appear without the definite article, especially when they refer to something slightly more abstract.¹⁸ These examples from Thráinsson (2007) are particularly illuminating:

- (38) a. Bók-in / Bók mín um setningafræði fékk góða dóma.
book-the / book my about syntax got good reviews
'My book about syntax got good reviews.'
- b. Hvar er bók-in / *?bók mín um setningafræði?
where is book-the / ?*book my about syntax
'Where is my book about syntax?'

In (38a), when *bók* 'book' refers in some sense to the work or content itself, the definite article can be left out. However, if it is an actual copy of a book as in (38b), then the indefinite form (i.e., with no definite article) "seems quite odd" (Thráinsson 2007:93). Interpretational differences aside, the bottom line is that the possession system of Icelandic countenances both nouns with the definite suffix and nouns without it.¹⁹

When these possessed nouns are modified by adjectives, those adjectives must (or can) show the weak form, whether or not they have the definite article:

- | | |
|--|--|
| <p>(39) a. best-i vinur minn
best-WK friend my
'my best friend'</p> <p>b. stór-a systir mín
big-WK sister my
'my big sister'</p> | <p>(40) a. góð-a bók-in mín
good-WK book-the my
'my good book'</p> <p>b. rauð-a hús-ið mitt
red-WK house-the my
'my red house'</p> |
|--|--|

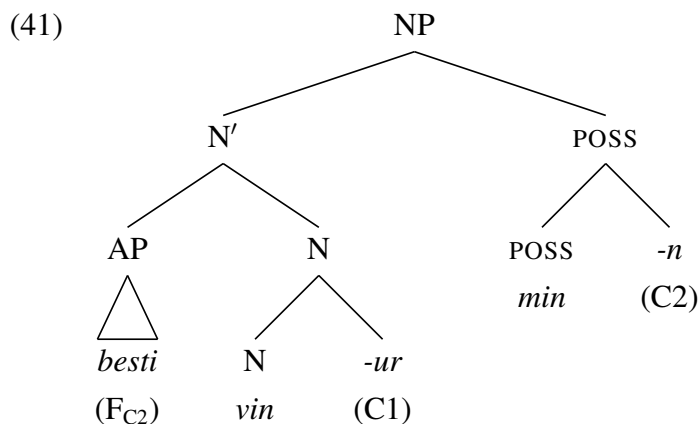
According to Katzir's assumptions, the adjectives in (39) have instances of F_{C2} that must be licensed by a c-commanding licenser: the C2 suffix. Since the adjectives themselves do not have C2

¹⁸The semantic contrast suggested here is reminiscent of the kind of distinction that Davies and Dubinsky (2003) argued to be operative in governing extraction from NPs: 'book' in the abstract reading encodes (non-argumental) *participants* whereas concrete 'book' does not. Davies and Dubinsky argue that it is only participants that can be extracted. How exactly these distinctions play into possessum marking is an issue that is beyond the scope of the present paper, but it seems a fruitful line of inquiry for research in this domain.

¹⁹This is not an exhaustive list of constructions that are used for possession in Icelandic. For a particularly thorough survey, see (Thráinsson 2007:88-96).

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.

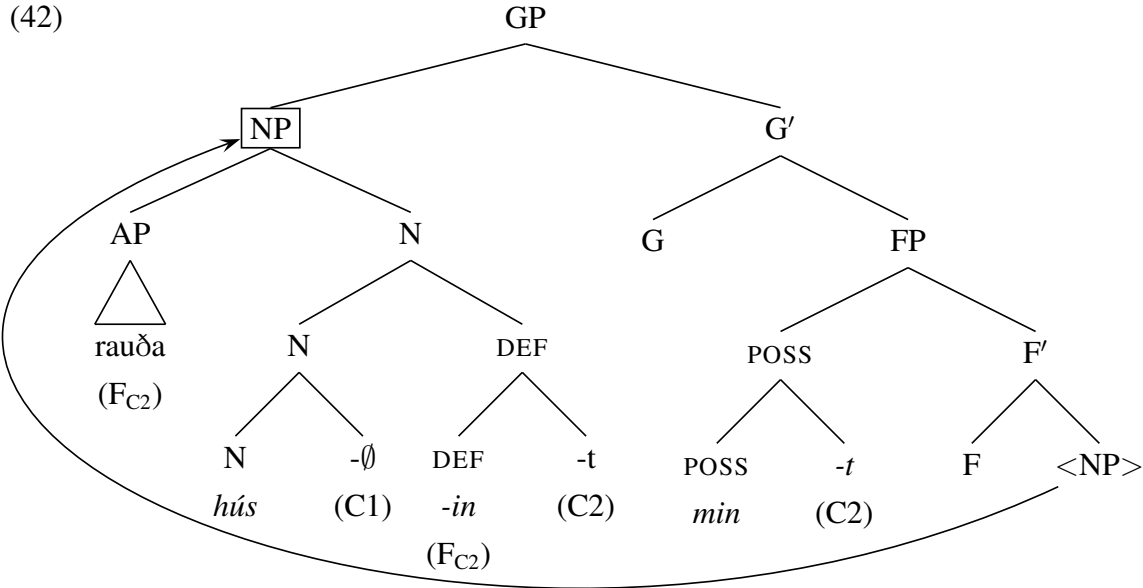
In fact, as noted by one of Katzir’s reviewers (fn. 44), the possessive pronoun does have what looks like a C2 suffix. Possessive pronouns decline almost exactly like the definite article. Katzir argues convincingly that the definite article in Icelandic also bears a C2 suffix, and under Katzir’s account, this explains the loss of the C2 suffix on adjectives when the definite article is present. Following Sigurðsson (1993), Vangsnes (1999), Julien (2005) and Norris (2011), we assume a reasonable location for Icelandic possessors is Spec,NP. One might propose a base-generated structure along the lines of (41), 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 C2 suffix on *minn* c-commands the instance of F_{C2} on the adjective, eliminating the need for an additional C2 suffix on the adjective. However, it runs afoul of the more standard possessive constructions in (35a). Recall that most nouns require the presence of the suffixed article in addition to the possessive pronoun. The C2 suffix in (41) 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 in (10) and (11).

However, as Katzir notes in footnote 44, the general consensus is that the order of adjective, noun, and possessor in Icelandic possessives is not base-generated. There are two types of proposals: either (i) the noun raises above the possessor, and in so doing, becomes left-adjacent to the adjective (Vangsnes 1999:117-133, Julien 2005:3-11, Norris 2011:110-111), or (ii) the adjective and noun form a unit and raise above the possessor together (Magnússon 1984:100, Sigurðsson 1993:193-195, Sigurðsson 2006:10-11, Pfaff 2009:59-80). We believe an analysis of type (i) is incompatible with Katzir’s assumptions, insofar as the definite suffix attached to N must c-command adjectives. The authors who propose an analysis of type (ii) differ in how they formalize the adjective-noun unit as a consequence of the other assumptions and proposals they make. For concreteness, we assume that they form a phrasal unit (like Pfaff (2009), unlike Sigurðsson (1993,

2006)) that moves to the specifier of some functional projection, G.²⁰ For *rauða húsið mitt* ‘my red house’, we have the derivation in (42). Note that, following Katzir’s decomposition, we have decomposed *-ið* into *-in* and *-t*, and we have decomposed *mitt* into *min* and *-t*.



As a result of this movement, the C2 suffix attached to POSS no longer c-commands the instance of F_{C2} on the adjective *rauða*. In his discussion of Greek, Katzir proposes that licensing must hold for a feature’s surface position (pp. 71-72), thus in this instance, an extra C2 licenser is needed to license the instance of F_{C2} on the adjective: the *-t* on DEF. This is exactly as Katzir’s analysis would predict. Furthermore, as noted by a reviewer, in situations of contrastive focus, the possessive pronoun actually precedes the adjective and noun, and in such cases, the definite article is not possible, as the following examples show (Thráinsson 2007):

- (43) a. mín góð-a bók(*-in)
my good-WK book-the
‘MY good book, (not yours)’
b. þitt rauð-a hús(*-ið)
your red-WK house-the
‘YOUR red house, (not mine)’

Assuming the possessive pronoun c-commands the noun in this case, the C2 suffix on the definite article is superfluous, and thus the structure without it is predicted to be more economical, and this prediction is borne out.

We must now return our attention to the possessives without the definite article in (36)-(39). If we adopt the movement analysis, then the C2 suffixes in these constructions will go unlicensed, as the NP moves out of the c-command domain of the C2 suffix on POSS, and there is no definite article to do the necessary licensing. Such structures should be ruled out by GRAMMAR, because

²⁰We cannot simply use Pfaff’s (2009) proposed structure, as his structural assumptions about adjectives are incompatible with Katzir’s assumptions about licensing in Icelandic.

they contain unlicensed instances of F_{C2} . On the other hand, if we adopt the base-generated analysis, then at least one C2 suffix in possessives with the definite article should be superfluous and be ruled out by ECONOMY. Under Katzir's system of licensing, neither approach to possessives straightforwardly explains the range of possibilities in Icelandic possessives. The existence of both kinds (i.e., with and without the definite article) presents us with a paradox.

Two immediate options present themselves. One option is to say that there is a C2 suffix on the noun: the suffix that Katzir glosses as C1. However, the C1 suffix is not identical to the C2 suffix—though there is a high degree of overlap in form between the C1 and C2 suffixes, they are not identical. Furthermore, if we said that C1 could be a licenser of F_{C2} , ECONOMY would predict there would never be a need for a C2 licenser on the definite article, as C1 could do all the licensing work. Therefore, the C1 suffix cannot be a licenser of F_{C2} . Alternatively, we could say that there is a null definite article on the nouns in possessives with no definite article, and that the null 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 licenser 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 of the instance of F_{C2} on the adjective run into problems, we consider possessive constructions like those in (36)–(39) as instances of too few licensors.²¹

As in Danish, some vocatives involving adjectives can have the adjective in the weak form (see (44)), though the strong form is also possible (45).

- (44) a. kær-u vin-ir
 dear-WK friends-C1
 'dear friends' (Svavarsdóttir and Jónsdóttir 1998:136)
- b. góð-a frú-Ø
 good-WK married.woman-C1
 'dear Mrs. X' (letter opening) (Einarsson 1949)
- (45) a. góð-ir fundargest-ir
 good-C2 meeting.guests-C1
 'good guests' (Svavarsdóttir and Jónsdóttir 1998:136)
- b. góð-ir háls-ar
 good-C2 throat/neck-C1
 'Ladies and Gentlemen!' (Einarsson 1949)

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 (45): 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 (44), the suffix attached to the adjective is not C2, but the realizer WK, the so-called weak inflection. Vocative phrases like those in (44) thus provide a second instance of an adjective appearing in weak form with no C2 licenser in sight. With no C2 suffix to license the F_{C2} on the adjectives, we would be forced to posit a null licenser for C2. Without independent evidence for such null elements or explanations of their distribution, vocatives constitute a second

²¹We are grateful to an anonymous reviewer for very helpful discussion of the issues concerning possessives.

example of too few licensors.²²

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 (WK). 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, Svavarsdóttir and Jónsdóttir (1998) give some examples of superlatives occurring with nouns that have no article but must nevertheless be in the weak form:

- (46) a. Þjórsá er leng-st-a á á Ísland-i.
 Þ is long-SUPER-WK river in Iceland-DAT
 ‘Þjórsá is the longest river in Iceland.’
 b. Kínverj-ar eru fjölmenn-ast-a þjóð í heim-i.
 Chinese.person-NOM.M.PL are populous-SUPER-WK 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-WK man in world-DAT
 ‘Jón Páll was the strongest man in the world.’

In the examples in (46), the superlative adjectives are all in the so-called weak form— they all bear the suffix that Katzir calls WK, 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 (47):

- (47) a. Anna litl-a fékk dúkk-u.
 A little-WK got doll-ACC.F.SG
 ‘Little Anna got a doll.’ (Julien 2005:16)
 b. Siggi glaði
 S happy-WK
 ‘happy Siggi (Siggi, who is happy)’²³

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 (47) are slightly irregular in that they are names showing the so-called ‘weak declension’ for nouns, which is identical to the weak declension of adjectives, but only in the singular. In any case,

²²We 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 *vinir* ‘friends’ in (44) is *not* C2— evidence against such a proposal could be found in (45).

²³<http://siggismalls.blogspot.com/2005/05/celibratyon-vitlaust-skrifa-g-veit-en.html>

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 (48) (Katzir’s (40)).

(48) gul + hest ‘yellow horse’ *masc.*

	Indefinite		Definite	
	Adj-C2	N-C1	Adj-WK	N-C1-DEF-C2
Nom.	gul-ur	hest-ur	gul-i	hest-ur-in-n
Acc.	gul-an	hest	gul-a	hest-in-n
Dat.	gul-um	hest-i	gul-a	hest-in-um
Gen.	gul-s	hest-s	gul-a	hest-s-in-s

Katzir’s analysis aims to assimilate the C2 ending to the Danish *-t* and the WK ending to the Danish *-e* (i.e., treat C2 as a licensor of F_{C2} and WK 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 WK— we assume for the moment that WK is exactly parallel to Danish *-e* (i.e., a realizer of at least F_{DEF}), but we will return to WK in section 4.2.²⁴

Katzir restricts his discussion to Icelandic DPs containing at most an adjective and a definite article (as in ((31a))–((31d)) above).²⁵ 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 (49), and a representative set of examples (one for each gender) is given in (50).

(49) Word classes bearing C2 suffixes in Icelandic:

- a. Quantifiers: *all-ur* ‘all’, *sum-ur* ‘some’, *engin-n* ‘none’
- b. Demonstratives: *þess-i* ‘this’, *sá* ‘that/the one’, *hin-n* ‘the other’
- c. Numerals: *tve-ir* ‘two’, *þrír* ‘three’, *fjór-ir* ‘four’
- d. Adjectives: *lítill-i* ‘little’, *gul-ur* ‘yellow’, *falleg-ur* ‘pretty’

²⁴The distribution of the weak (=WK) 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, To Appear).

²⁵The 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— and as we discussed in §4.1.1— this is puzzling for his approach, since it suggests that the C2 on *-in* fails to license F_{C2} on the possessive pronoun.

- e. Definite article: *-in-n*
- f. Possessive pronouns: *min-n* ‘my’, *þin-n* ‘your.SG’, *sin-n* ‘3.REFL’s’
- (50) a. all-ir hin-ir litl-u snigl-ar-n-ir mín-ir fjór-ir
all-C2 other-C2 little-WK snail-C1-DEF-C2 my-C2 four-C2
‘all the other four little snails of mine.’ [MASCULINE]
- b. all-ar hin-ar litl-u bæk-ur-n-ar mín-ar fjór-ar
all-C2 other-C2 little-WK snail-C1-DEF-C2 my-C2 four-C2
‘all the other four big books of mine.’ [FEMININE]
- c. öll-∅ hin-∅ litl-u hús-∅-in-∅ mín-∅ fjögur-∅
all-C2 other-C2 little-WK house-C1-DEF-C2 my-C2 four-C2
‘all the other four little houses of mine.’ [NEUTER]

Though there are some instances of suppletion and a bit of variation (e.g., in the demonstratives *þessi* and *sá*), the default concord markers can be represented as in (33), repeated below.²⁶ 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.²⁷

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

	SINGULAR			PLURAL		
	MASC	FEM	NEUT	MASC	FEM	NEUT
NOM	-(u)r/l/n	-∅	-t	-ir	-ar	-∅
ACC	-an	-a	-t	-a	-ar	-∅
DAT	-um	-ri	-u	-um	-um	-um
GEN	-s	-rar	-s	-ra	-ra	-ra

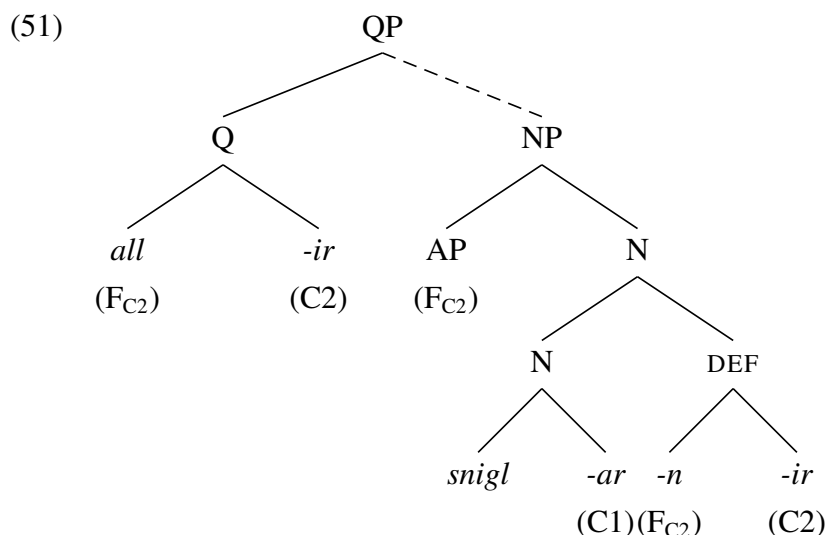
Katzir proposes that these suffixes are akin to the Danish *-t*— that is, they are licensors. Under Katzir’s proposal, these C2 suffixes serve the purpose of licensing a feature (F_{C2}). Recall that licensing is done by c-command— every instance of F_{C2} must be c-commanded by a licensing C2 suffix. 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 (50). Aside from the adjective and noun, every element in (50) that bears a concord marker is bearing what looks like C2, for a total of five instances of C2 (quantifier *allur* ‘all’, demonstrative *hin* ‘other’, definite article *-inn*, possessive pronoun *minn* ‘my’, and numeral *fjór* ‘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

²⁶We 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 WK).

²⁷The three cells in Table 33 listed as \emptyset 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.

(Sigurðsson 1993), as in (51), which would put it in a position to c-command the definite article, among other things.



Some possible support for the claim that quantifiers c-command the rest of the DP comes from the following example, which involves a negative quantifier licensing an NPI (for evidence that *neinn* must be licensed by a c-commanding negative element, see Jónsson 1996, Thráinsson 2007):

- (52) enginn maður í neinum menningarheim-i
 no man in any(NPI) culture
 ‘no man/person in any culture’²⁸

We thank an anonymous *LI* reviewer for suggesting examples of this type.

While the structure in (51) is slightly abbreviated (indicated by the dotted line), the C2 licenser on *allur* ‘all’ clearly c-commands the instance of F_{C2} on *all* as well as the instances of F_{C2} on everything else in the DP. This is enough to license every instance of F_{C2}. Since Katzir’s ECONOMY prefers structures with fewer licensers, 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:

- (53) a. * all-ir hin-(u) litl-u snigl-ar-n-(u) mín-(u) fjór-(u)
 all-C2 other-(WK) little-WK snail-C1-DEF-(WK) my-(WK) four-(WK)
 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-(WK) little-WK book-C1-DEF-(WK) my-(WK) four-(WK)
 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-(WK) little-WK snail-C1-DEF-(WK) my-(WK) four-(WK)
 Intended: ‘all the other four little houses of mine’ [NEUTER]

²⁸From the *Morgunblaðið* newspaper: <http://www.mbl.is/greinasafn/grein/1254040/>, accessed 03/14/2013. Speakers consulted have accepted this example as well.

The examples in (53) involve only one instance of C2 (on *allur* ‘all’), one instance of C1 (on the noun), and five instances of WK,²⁹ which is what Katzir’s proposal predicts should be grammatical under the accepted structure of nominals in Icelandic (see, for example, Delsing 1993, Sigurðsson 1993, 2006, Vangsnes 1999, Julien 2005, Pfaff 2009, Norris 2011). The only grammatical way to use those words together in a nominal phrase is as in (50), where every element bears a C2 suffix except the adjective and noun, which bear WK and C1, respectively. The examples in (53) are ungrammatical, and so are any similar examples with a distribution of C2 and WK suffixes that is different from the grammatical way in (50).

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 (49). The only way for Katzir’s morphological account to be consistent with the data in (50) and (53) would be to say that there are no c-command relations between any of the elements in the nominal phrases in (50). 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.

²⁹In (53) we include the WK suffixes as optional on everything but the adjective. With adjectives, we see an alternation between WK 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 WK since their C2 suffix is already licensed. On the other hand, if WK suffixes only attach to adjectives, then perhaps we would expect to see nothing at all.

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 (54-55):

(54) “Definite” adjectives in Icelandic (nominative):

- a. gul-i hest-ur-in-n
yellow-WK horse-C1-DEF-C2
‘the yellow horse’ (MASC) (Katzir’s (40))
- b. gul-a kinn-∅-in-∅
yellow-WK cheek-C1-DEF-C2
‘the yellow cheek’ (FEM) (Katzir’s (47))
- c. gul-a barn-∅-i-ð
yellow-WK horse-C1-DEF-C2
‘the yellow child’ (NEUT) (Katzir’s (48))

(55) “Definite” adjectives in Icelandic (accusative):

- a. gul-a hest-∅-in-n
yellow-WK horse-C1-DEF-C2
‘the yellow horse’ (MASC) (Katzir’s (40))
- b. gul-u kinn-∅-in-a
yellow-WK cheek-C1-DEF-C2
‘the yellow cheek’ (FEM) (Katzir’s (47))
- c. gul-a barn-∅-i-ð
yellow-WK horse-C1-DEF-C2
‘the yellow child’ (NEUT) (Katzir’s (48))

In Icelandic, this WK suffix is traditionally called the “weak declension” of adjectives (as in the other Germanic languages). The weak declension is often assimilated to something like definiteness (Sigurðsson 2006), though as discussed by Thráinsson (2007), Pfaff (2009, To Appear), the distinction between weak and strong adjectives in Icelandic is about more than definiteness.³⁰ This declension paradigm is given in (56).

³⁰For example, there are examples of adjectives appearing with strong inflection in apparently definite DPs:

- (i) Ég horfði upp í blá-an himin-inn.
I looked up into blue-C1 sky-the
‘I looked up into the blue sky.’ (Thráinsson 2007:3)

The most thorough investigation of these issues that we are aware of is the one provided by Pfaff (To Appear). Pfaff argues that strong adjectives in definite DPs as in (i) are merged outside DP, leading to their obligatorily non-restrictive interpretation. In contrast, weak adjectives are merged within DP, though this says nothing of their interpretation. As Pfaff shows, both non-restrictive and restrictive interpretations are possible for weak adjectives (given the proper context). We regret that we cannot discuss these issues in detail here, but we do note that although examples such as (i) are very interesting, their grammaticality is orthogonal to the point that we are making about Katzir’s approach. Even if WK were a marker of mere definiteness, Katzir’s analysis could not account for its distribution.

(56) Weak (definite) declension paradigm for adjectives in Icelandic (= Katzir's WK)

	SINGULAR			PLURAL
	MASC	FEM	NEUT	
NOM	-i	-a	-a	-u
ACC	-a	-u	-a	
DAT	-a	-u	-a	
GEN	-a	-u	-a	

These WK 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 weak form of adjectives in Icelandic, we would like to say that it is due to the fact that both C2 and WK realize the same terminal node. In Distributed Morphology terms, the WK suffix and the C2 suffix compete for insertion.

C2 and WK 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 WK), but in fact, the paradigm for comparative adjectives is even more impoverished than the WK 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.³¹

(57) Comparative adjective endings (CAE) in Icelandic

NEUT.SG	ELSE
-a	-i

(58) Declension paradigm for agreement suffixes on nouns in Icelandic (= Katzir's C1)

	SINGULAR			PLURAL		
	MASC	FEM	NEUT	MASC	FEM	NEUT
NOM	-(u)r/l/n/ð	-ð	-ð	-ar	-ir	-ð
ACC	-ð	-ð	-ð	-a	-ir	-ð
DAT	-(i)	-ð	-i	-um	-um	-um
GEN	-s	-ar	-s	-a	-a	-a

Thus, there are essentially four different realizers in Icelandic: C2, WK, CAE, and C1.³² We assume the following Vocabulary Item schematics, ignoring precise featural specifications of the nodes, as

³¹The C1 declension given in (58) is traditionally called the regular and strong declension for nouns in Icelandic. Of course, there are special declension classes to which many words belong (e.g., *veggur* 'wall', *bær* 'farm/town', *bekkur* 'bench/grade'), as well as words that are totally irregular in the sense that they comprise their own declension class (e.g., *hönd* 'hand', *fótur* 'foot'). Furthermore, there is a "weak" declension of nouns as well— in the singular, they are identical to the WK 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.

³²Of 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.

we are only concerned here with what drives the choice between C2 and WK, and not how the various forms of those suffixes are calculated.³³

(59) Vocabulary Items for Icelandic concord markers:

- a. AGR, [ξ] \leftrightarrow C1 / N \frown —
- b. AGR, [ξ] \leftrightarrow CAE / COMPARATIVE \frown —
- c. AGR, [ξ , WK] \leftrightarrow WK / A \frown —
- d. AGR, [ξ] \leftrightarrow C2

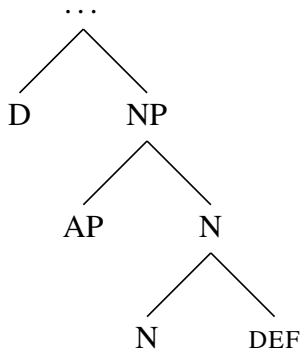
We use ξ to represent combinations of gender, case, and number features, and we follow work by Embick (2010) in assuming that allomorphy can be determined under linear adjacency (i.e., concatenation, indicated here by \frown). The analysis is straightforward. C1, CAE, and C2 all realize identical feature 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, WK and C2 realize different feature sets: WK also realizes [WK], whereas C2 does not. Thus, again by the Subset Principle, if the node undergoing insertion consists of [ξ , WK], then we expect WK 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 [WK]). 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 (WK 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 licenser.

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 sisters to N. The proposed structure is repeated below:

³³The choice between strong and weak adjectival inflection in the Germanic languages is often attributed to definiteness, but as Pfaff (To Appear) shows, the choice between strong and weak adjectives is not really determined on the basis of definiteness alone. There are strong adjectives in DPs that are apparently definite (see footnote 30), and there are weak adjectives in DPs with no overt marker of definiteness (see (46)). While we do propose a featural difference between strong and weak adjectives, we have chosen to remain agnostic about the identity of the feature. Thus, our Vocabulary Items in (59) are simplified in this respect. Whether this difference can be captured with features is a question that we leave open here.

(30)



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 were 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.

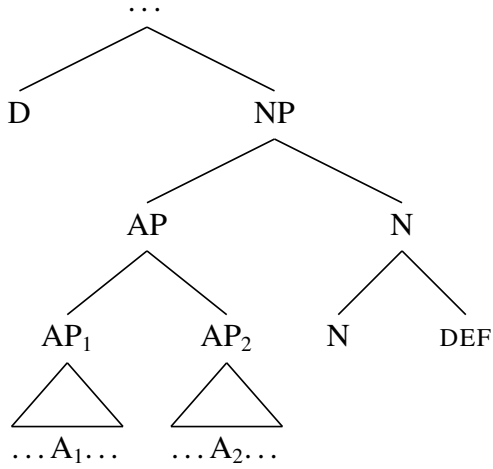
If the relationship between N and AP is intended to be a standard head-complement relationship (as Katzir's structures suggest), there are a number of fairly standard expectations we would have that are not borne out. For example, we would expect that Ns in Icelandic (but not Danish) could subcategorize for certain adjectives. We are unaware of any such examples. Furthermore, we might expect that a noun could not simultaneously have a PP/CP complement of its own and be modified by an adjective on the standard assumption that a head can have only one complement. This prediction is not borne out.³⁴ On the subject of complementation, note that the AP-N relationship would have to be head-final, which would make it the only example of head-finality that we are aware of in Icelandic.

4.3.1 Stranded adjectives in Icelandic "Noun Phrase Ellipsis"

Finally, we would like to consider the predictions of Katzir's analysis in an area that one of Katzir's reviewers suggested: 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, DPs with multiple adjectives will have the structure in (60).

³⁴We are grateful to an anonymous *LI* reviewer for helpful discussion of this point.

(60)



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, leaving behind another adjective.³⁵ Katzir himself does not investigate this prediction. While we unfortunately do not have the space to investigate this fully, we offer some preliminary comments here in the hope of inspiring future work on ellipsis(-like) processes in Icelandic nominals. Several possible candidates for nominal phrase ellipsis in Icelandic are given below:

- (61) Haraldur vildi kaupa **rauðan bíl** en ekki þann stóra.
 H wanted buy red car but not that big
 ‘Haraldur wanted to buy a red car, but not the big one (= red car).’
- (62) Haraldur vildi kaupa **stórt, brúnt hús** en hann keypti lítið í staðinn.
 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.’
- (63) 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.’

In each of the above examples, 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. If adjectives formed one large constituent, we would expect either all of them to remain or all of them to be elided. If one (or all) of these examples is genuine ellipsis, then the fact that some adjectives can be elided and some can be left behind suggests that the adjectives do not adjoin to each other first and then merge with N(P). Instead, the adjectives must have some degree of autonomy, either as adjuncts to NP, as specifiers, or as heads taking AP/NP complements—any analysis where they do not form a constituent to the exclusion of the NP.

However, it may also be that these constructions are not genuine ellipsis. In that case, they may be best analyzed as akin to English *one*-anaphora but with a silent “one.” The “elided” NPs would then be simple NPs modified by one adjective—easily incorporated in any phrase structure

³⁵Such ellipsis processes are commonly assumed to elide constituents (cf. Lobeck 1995 and Merchant 2001, i.a.)

for adjectives and nouns.³⁶ Katzir notes that ellipsis would be a good test to determine whether his proposal for the constituency for adjectives is on the right track. If the examples in (61)-(63) are not genuine ellipsis, then we cannot conclude anything from them, but if they can be properly analyzed as ellipsis, then Katzir's phrase structure for adjectives is not on the right track.³⁷

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 (except for words which do not decline, see footnote 32); in contrast to Katzir, we have suggested that 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 disappears. In the case of definiteness, we lose a spreader. Rather than controlling definiteness agreement, the definite article (or the

³⁶An observation made by a reviewer suggests that, for at least one of the constructions, genuine ellipsis appears to be the wrong approach. The ellipsis analysis makes an interesting prediction regarding the rigid internal ordering of multiple adjectives, as it is commonly assumed that ellipsis processes can only elide syntactic constituents. For example, an ellipsis account predicts the following to be ungrammatical:

- (i) Haraldur vildi kaupa **stóran bíl** en ekki þann rauða.
 H wanted buy big car but not that red
 'Haraldur wanted to buy a big car, but not the red one (= big car).'

Given that the normal word order is *stór rauður bíll* 'big red car' and not **rauður stór bíll* 'red big car', it should not be possible to elide *stór bíll* to the exclusion of *rauður* 'red'. However, preliminary fieldwork suggests that (i) is indeed grammatical under the intended reading.

³⁷It 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 lower adjectives. This would require simultaneously embracing and rejecting bare phrase structure.

suffix *-en*) licenses F_{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_{DEF} , there is no morpheme that realizes F_{Nt} . 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.

References

- Adger, David (2012). *A Syntax of Substance*. MIT Press.
- Börjars, Kersti and Mark Donohue (2000). “Much ado about nothing: features and zeroes in Germanic noun phrases.” *Studia Linguistica* 54(3):309–353.
- Chomsky, Noam (1995). “Bare phrase structure.” *Evolution and revolution in linguistic theory*, ed. Hector Campos and Paula Kempchinsky 51–109.
- Davies, William D. and Stanley Dubinsky (2003). “On extraction from NPs.” *Natural Language & Linguistic Theory* 21(1):1–37.
- Delsing, Lars-Olof (1993). *The internal structure of noun phrases in the Scandinavian languages*. Ph.D. thesis, University of Lund.
- Einarsson, Stefán (1949). *Icelandic: grammar, texts, glossary*. Baltimore: The Johns Hopkins Press.
- Embick, David (2010). *Localism versus globalism in morphology and phonology*. MIT Press.
- Embick, David and Rolf Noyer (1999). “Locality in Post-Syntactic Operations.” *MITWPL* 34:265–317.
- Embick, David and Rolf Noyer (2001). “Movement operations after syntax.” *Linguistic Inquiry* 32(4):555–595.
- Grimshaw, Jane (2005). *Words and structure*. CSLI Publications.
- Halle, Morris (1997). “Distributed Morphology: Impoverishment and Fission.” *MITWPL* 30:425–449.
- Hankamer, Jorge and Line Mikkelsen (2002). “A morphological analysis of definite nouns in Danish.” *Journal of Germanic Linguistics* 14(02):137–175.
- Hankamer, Jorge and Line Mikkelsen (2005). “When movement must be blocked: A reply to Embick and Noyer.” *Linguistic Inquiry* 36(1):85–125.

- Hansen, Erik (1994). “Kvalificeret bestemthed.” In Mette Kunøe and Erik Vive Larsen, eds., 5. *Møde om Udforskningen af Dansk Sprog*, 106–114.
- Hansen, Erik and Lars Heltoft (2011). *Grammatik over det Danske Sprog, Bind I*. Det Danske Sprog- og Litteraturselskab.
- Jónsson, Jóhannes Gísli (1996). *Clausal Architecture and Case in Icelandic*. Ph.D. thesis, University of Massachusetts, Amherst.
- Julien, Marit (2005). *Nominal phrases from a Scandinavian perspective*. John Benjamins Publishing Company.
- Katzir, Roni (2011). “Morpho-Semantic Mismatches, Structural Economy, and Licensing.” *Linguistic Inquiry*.
- Kayne, Richard S. (1994). *The Antisymmetry of Syntax*. Cambridge, MA: MIT Press.
- Kayne, Richard S. (2010). *Comparisons and contrasts*. Oxford University Press.
- Lobeck, Anne (1995). *Ellipsis: Functional heads, licensing, and identification*. New York: Oxford University Press.
- Magnússon, Friðrik (1984). “Um innri gerð nafnliða í íslensku [On the structure of Noun Phrases in Icelandic].” *Íslenskt mál og almenn málfræði* 6:81–111.
- May, Robert (1985). *Logical Form: Its structure and derivation*. Cambridge, MA: MIT press.
- Merchant, Jason (2001). *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. New York: Oxford University Press.
- Norris, Mark (2011). “Extraposition and Definiteness Effects in Icelandic DPs.” In Nicholas LaCara, Anie Thompson, and Matthew Tucker, eds., *Morphology at Santa Cruz*. Santa Cruz, CA: Linguistics Research Center.
- Norris, Mark (2012). “Towards an analysis of Concord (in Icelandic).” In *Proceedings of the 29th West Coast Conference on Formal Linguistics*.
- Noyer, Rolf (1997). *Features, Positions and Affixes in Autonomous Morphological Structure*. New York, NY: Garland Publishing.
- Noyer, Rolf (1998). “Impoverishment theory and morphosyntactic markedness.” In Steve Lapointe, Diane K. Brentari, and Patrick Farrell, eds., *Morphology and its relation to phonology and syntax*, 265–285. Stanford, CA: CSLI.
- Pfaff, Alexander (2009). *Structural relations between free and suffixed articles in Icelandic*. Master’s thesis, Eberhard Karls Universität Tübingen.
- Pfaff, Alexander (To Appear). “Inside and outside— before and after: weak and strong adjectives in Icelandic.” In Frank Van de Velde, Petra Sleeman, and Harry Perridon, eds., *Adjectives in Germanic and Romance: variation and change*, Linguistik Aktuell. Amsterdam: John Benjamins Publishing Company.

- Roehrs, Dorian (2009). "The Structural Nature of Adjective Endings in German and some Consequences." ms, University of North Texas. Available online: <http://ling.auf.net/lingbuzz/000869>.
- Sigurðsson, Halldór Ármann (1993). "The structure of the Icelandic NP." *Studia Linguistica* 47(2):177–197.
- Sigurðsson, Halldór Ármann (2006). "The Icelandic noun phrase: Central traits." *Arkiv for nordisk filologi* 121:193–236.
- Svavarsdóttir, Ásta and Margrét Jónsdóttir (1998). *Íslenska fyrir útlendinga: kennslubók í málfræði [Icelandic for foreigners: grammar teaching manual]*. Málvísindastofnun Háskóla Íslands.
- Thráinsson, Höskuldur (2007). *The Syntax of Icelandic*. Cambridge: Cambridge University Press.
- Vangsnes, Øystein Alexander (1999). *The identification of functional architecture*. Ph.D. thesis, University of Bergen.

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