

# Evidence for a DP-projection in West Greenlandic Inuit

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## 1. INTRODUCTION

The goal of this article is to argue for a DP-layer in West Greenlandic (WG) noun phrases and in doing so to contribute to the argument that the absence of overt D-elements is not directly indicative of the absence of a DP-layer. WG is a polysynthetic, ergative language with no overt determiners. DP interaction with the verbal complex for Inuit languages in general has been considered by various scholars (Bittner 1987, 1995, 2005; Wharram 2003; Compton 2004, 2009; among others), who address, directly and indirectly, DP-internal syntax. These proposals range from supporting the existence of a D-head or some similar functional projection, such as Case (KP) (Bittner and Hale 1996, Wharram 2003), to defending the non-existence of a D-head and allowing only NPs with necessary functional projections (Johns 2007, 2009).<sup>1</sup> What the the existing arguments for a D-head in WG lack is an explicit defense of the projection. The proposal I present here supports the argument that despite being articleless, WG does, in fact, have a D-head, and that in the course of the derivation this head acquires features that play a role in the clausal domain.

The paper is structured as follows. In section 2, I introduce relevant WG data for noun phrases, including the behaviour of nominal constituents and the realization of (in)definiteness. In section 3, I propose structures for the data presented, giving three main arguments for the necessity of D: (i) the head is needed for possessive agreement, (ii) the head is needed for valuation of definiteness, and (iii) the specifier is a necessary landing site for movement. Section 4 is a conclusion.<sup>2</sup>

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<sup>&</sup>lt;sup>1</sup> Arguments for the non-D approach have been made for other dialects of Inuit as well, such as North Baffin (Compton 2004).

<sup>&</sup>lt;sup>2</sup> Abbreviations: ABS = absolutive, ACC = accusative, AP = antipassive, CAUS = causative, CS = construct, DAT = dative, DEF = definite, ELA = elaborating mood, ERG = ergative, FCT = factual, FOC = focus, FUT = future, HABIT = habitual, HYP = hypothetical, IMP = imperative, IND = indicative, INDEF = indefinite, INST = instrumental, INTR = intransitive verb, LOC =

## 2. DATA AND THEORETICAL ASSUMPTIONS

In this section, I provide some general background about WG and then present relevant data involving noun phrases.

# 2.1. West Greenlandic Inuit

WG belongs to the Eskimo-Aleut language family, which stretches across the North American Arctic from the Bering Strait to the east coast of Greenland. WG belongs to the Inuit sub-branch of the Eskimo group and is situated in the eastern part of the North American Arctic (Fortescue 1983; Woodbury 1984; Kaplan 1990; Dorais 1996, 2003). According to Dorais (2010:55), Inuit dialects share a large percentage of syntactic characteristics (about 90%); however, as an anonymous reviewer points out, Dorais's estimate is likely based on morphological and phonological patterns. Others have argued for significant syntactic differences among Inuit dialects. For example, Hayashi (2011) argues for a rich and obligatory tense system in South Baffin Inuktitut; this stands in contrast to WG, which has been argued to be tenseless (Bittner 2005). I do not attempt to argue here for similarities in noun phrases across Inuit dialects and make limited mention of other Inuit language groups throughout this paper.

Data presented in this paper has been drawn from a number of primary and secondary sources: Sadock 1980, 2003; Fortescue 1984, 1990; Jenkins 1984; Bittner 1987; Allen 1988; Johns 1992; in addition to several primary texts translated by Bittner.<sup>3</sup>

# 2.2. The syntax of noun phrases<sup>4</sup>

Part of the interest in considering noun-phrase-internal structure in WG is the fact that it is a polysynthetic language (Fortescue 1984, Mithun 1999, Sadock 2003, Compton 2004, Compton and Pittman 2010). Nominal and verbal structures are formed by the addition of affixes to a word base.

(1) taamaan-nir-puq
 be.thus-wonder.1SG-3SG.IND
 'I wonder if it is so?'

(Fortescue 1984:7)

The order of morphemes in WG words is relatively strict; on the other hand, word order, while defaulting to  $SOV^5$  (Fortescue 1984), is relatively free in that constituents may appear in virtually any order. With this freedom in mind, however, changes in word order reflect changes in argument structure, as demonstrated by the following examples.

nominalization localizer, NEG = negation, NOM = nominative, PART = participle, PASS = passive, PERF = perfective, PL = plural, PAST = past, POSS = possessive, SG = singular, TR = transitive verb

<sup>&</sup>lt;sup>3</sup> These texts are: Sommer et al. (2005a), (2005b), (2007a), (2007b); Thomasma (2007).

<sup>&</sup>lt;sup>4</sup> I use "noun phrase" as theory-neutral term. I use "DP" in reference to the structures like those in my proposal.

<sup>&</sup>lt;sup>5</sup> Including such constructions as the antipassive.

- (2) a. piniartu-p puisi pisar-aa hunter-SG.ERG seal.SG.ABS catch-IND.3SG.3SG 'The hunter caught the seal.' (neutral)
  - b. piniartup pisaraa puisi hunter caught seal
    'The hunter caught the seal.' (contrastive emphasis on *seal*)
  - c. puisi pisaraa piniartup seal caught hunter
    'The hunter caught the seal.' (contrastive emphasis on *hunter*)

(Fortescue 1984:181)

WG is also head-final (Bittner 1995), and this head-finality will be reflected in the structures presented in future sections.

Noun incorporation is active in WG: a small set of verbs allow incorporation (Sadock 1980; Allen 1998; Johns 2007, 2009); an example is given in (3).

(3) Palasi-ø niqi-tur-puq minister-SG(ABS) meat-eat-IND.3SG.3SG 'The minister eats/ate meat.'

I make relatively little reference to noun incorporation in this paper.

**2.2.1.** Nominal modifiers.<sup>6</sup> Head nouns are marked with number and structural case, and may incorporate a certain set of adjectives, which may not stand independent of a head noun. In (4), sua(q) 'big' is incorporated into the nominal compound. In (5) a different word, *angisuumik* 'big', stands independent of the head noun, which has been incorporated into the verbal complex.

- (4) Taku-lir-pa-ra iluliar-sua-q see-begin-IND.TR-1SG.3SG iceberg-big-SG.ABS
   'I spotted a giant iceberg.' (Sommer et al. 2005b:5)
- (5) Angisuu-mik qimm-eqarpoq
   big.be.INTR-SG.INST dog-have.IND.3SG
   'He has a big dog.'

In contrast, other elements behaving as adjectives may stand independent of the head noun. In (6), qisu-it/-k 'wood', ipua 'shaft', and qirnirtut '(be) black' modify their respective head nouns, matching in number. Examples (7) and (8) show similar behaviour for quantificational elements and demonstratives, respectively.

(6) a. kata-t qisu-it qirnir-tu-t hammer-PL wood-PL be.black-INTR.PART-PL 'black wooden hammers'

(Fortescue 1984:118)

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<sup>&</sup>lt;sup>6</sup> I use the general term 'modifier' to refer to elements that affect a head noun in some way. This general term includes nominals behaving as adjectives, relative clauses behaving as adjectives, demonstratives, and quantificational elements.

|     | b.   | savi-k ipu-a qisu-k<br>knife-SG shaft-3PL.SG wood-SG                                       |                      |
|-----|------|--|----------------------|
|     |      | 'a knife whose shaft is of wood'   | (Fortescue 1984:115) |
| (7) | a.   | Qallunaa-t amirlasuu-t<br>Dane-PL many-PL  |                      |
|     |      | 'many Danes'   | (Fortescue 1984:110) |
|     | b.   | ullu-t tamaq-vik-isa ilisima-tit-niqar-tar-pu-t day-PL all-really-PL know-CAUS-PASS-HABIT- | -IND.INTR-3SG        |
|     |      | 'Every single day they were warned.k'  | (Thomasma 2007:14)   |
| (8) | arna | a-q una  |                      |
|     | woi  | nan-SG that.SG   |                      |
|     | 'tha | it woman'  | (Fortescue 1984:110) |

An anonymous reviewer raises the question of whether modifiers like those in (6) through (8) are simply independent nominals in apposition with the head nominal. Indeed, in other contexts, words like *qisuit* 'wood' can behave as head nouns.

(9) qisu-k savi-up ipu-ssa-a wood-SG.ABS knife-3SG.ERG shaft-FUT-3SG.SG.ABS
'(a piece of) wood for the shaft of a knife' (Fortescue 1984:115) lit. 'wood (for a) knife's shaft'

Further, like head nouns, demonstratives (10), relative clauses (11), and numerals (12) can also stand independently, behaving as noun phrases;<sup>7</sup> these elements are also otherwise identical to head nouns in terms of morphological inflection (Fortescue 1984:49).

(10) suurlu=mi aamma ila-isa [tamanna] paasi-sima-gi-at as.if=FOC also part-3SG.PL.ERG [that] understand-PERF-ELA.TR-3PL.3SG
'It was as if the other (pup)s also had understood [that].'

(Sommer et al. 2007a:12–13)

- (11) [pi-sa-a] aki-vuq [do-PASS.PART-3SG.SG] reply-3SG.IND 'the one he'd replied (to)' (Fortescue 1984:52)
- (12) [sisama-at] tulugaq-mik aarnua-qar-nirar-pu-q
  [fourth-3PL.SG] raven-SG.INST amulet-have-say-IND-3SG
  'The [fourth] (member of their party) reported having a raven for an amulet.' (Sommer et al. 2007b:10)

I do not argue with the observation that these are all behaviours of independent

<sup>&</sup>lt;sup>7</sup> For reasons of space, I cannot give a full range of examples of demonstratives and numerals behaving as nouns. However, the reader should note that both demonstratives and numerals, like nouns, allow incorporation of the small set of adjectives discussed above, and may incorporate as nouns into appropriate verbal constructions.

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nouns in apposition. However, I hesitate to immediately categorize all of these elements as NPs that may be freely combined/adjoined. I argue that some structural relationship does exist.

First, nouns in apposition (as in English) produce distinct readings depending on their relative order.

- (13) tulu-k ikiurti-ga Englishman-SG helper-1SG.SG 'the Englishman (who is) my helper'
- (14) ikiurti-ga tulu-k helper-1SG.SG Englishman-SG 'my helper the Englishman'

(Fortescue 1984:115)<sup>8</sup>

Further, appositive nouns are restricted in what they can combine with. For example, they cannot modify head nouns as possessed nominals (with the intention of possession applying to both nouns) (15), nor can they modify proper names (in the sense of categorizing a person by profession) (16).

- (15) \*kaata-q qisu-ga hammer-SG wood-3SG.SG 'wooden hammer (possessed)'<sup>9</sup>
- (16) \*Petersen palasi Petersen priest.SG 'priest Petersen'

(Fortescue 1984:117)

Finally, relative clause modifiers in apparent apposition are ambiguous with respect to restrictive/non-restrictive interpretation. This ambiguity is noted in other cases of apparent apposition. For example, English prenominal adjectives can behave appositionally, shown in the ambiguity between the readings in (17a) and (17b).

- (17) All of his unsuitable acts were condemned.
  - a. All of his acts were condemned; they were unsuitable. (nonrestrictive)b. All (and only) his acts that were unsuitable were condemned.

(restrictive)

(Cinque 2010:7–8)

Despite the fact that the bolded adjective in (17) can behave appositionally, it is still categorically and adjective and treated as such structurally (in both possible interpretations).

The example in (18a) demonstrates this same type of ambiguity: the construction may be interpreted as (i) Greenlanders, all of whom are able to speak Danish (non-restrictive) or (ii) those Greenlanders who happen to be able to speak

<sup>&</sup>lt;sup>8</sup> Translation by Fortescue; glossed based on Fortescue's vocabulary and morphology paradigms.

<sup>&</sup>lt;sup>9</sup> However, a possessum can have appositional modifiers if they agree with the head noun, as in example (9).

Danish (restrictive). The examples in (18b) and (18c) show constructions that are unambiguously restrictive (with the addition of 'only') and non-restrictive (with the use of the causative in the relative clause), respectively (examples from Fortescue 1984:50–51).

| (18) | a. | kalaalli-t      | qallunaatut   | uqalus-sinnaa-su-t     |             |
|------|----|-----------------|---------------|------------------------|-------------|
|      |    | Greenlander-PL  | Danish        | speak-can-INTR.PART-PL |             |
|      |    | 'Greenlanders w | who can spead | k Danish'              | (ambiguous) |

- b. taamaallaat kalaall-it qallunaatut uqalus-sinnaa-su-t only Greenlander-PL Danish speak-can-INTR.PART-PL 'Greenlanders who can speak Danish ...' (restrictive interpretation)
- c. kalaalli-t qallunaatut uqalus-sinnaa-gamik ... Greenlander-PL Danish speak-can-CAUS.4PL 'Greenlanders, who can speak Danish, ...'

(non-restrictive interpretation)

Regardless of the category of the modifier, it is evident that there is a structural relation between the noun and modifier.

The syntactic relations and (in the next section) structures that I argue for do not preclude the possibility of an appositive interpretation. As I noted with respect to (17), apparent appositional modifiers are not necessarily in an appositive configuration. For this reason, I argue for a representation of modifiers that transparently represents the functional interpretation of these elements (e.g., numerals as the instantiation of Number).<sup>10</sup>

An additional note about apparent appositive modifiers is that their order may vary with respect to each other; the order in (19) and (20a) is the unmarked order.

- (19) [angut-t taakku sisama-t] isir-ga-mik [man-PL.ABS these.PL.ABS four-PL.ABS] enter-FCT-3PL
   illiq-mut ingig-pu-t sleeping.platform-SG.DAT sit.down-IND.INTR-3PL
   'When the four men came in, they sat down on the sleeping platform.' (Sommer et al. 2007b:4)
- (20) a. qimmi-t qaqurtu-t marluk taakku dog-PL white-PL two.PL those.PL 'those (two white dogs)'
  - b. qimmi-t qaqurtu-t **taakku marluk** dog-PL white-PL **those.PL two.PL** 'those two (white dogs)'

(Fortescue 1984:118)

As implied by the parentheticals, the difference in word order prompts a difference in interpretation.<sup>11</sup>

<sup>&</sup>lt;sup>10</sup> A number of syntactic accounts exist for appositional constructions that are compatible with the arguments presented in this paper (Smith 1964, Jackendoff 1977, de Vries 2006).

<sup>&</sup>lt;sup>11</sup> Fortescue characterizes the difference as follows: in the former example in (20) the

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The occurrence of a demonstrative with a quantificational element is in principle possible due to the fact that demonstratives may stand as independent noun phrases as in (10) above, but this does not appear to be common; (21) shows a demonstrative modifying a nominal (behaving as a) quantifier 'part'.

(21) [uku ila-kka] ila-u-nngit-galuar-gu-nik [these.PL.ABS part-1SG.PL.ABS] part-be-not-...but-HYP-3PL 'If [these other pups] don't come along ...' (Sommer et al. 2007a:8)

In possessive constructions, the possessor precedes the possessum; in (22) the possessor *Sacajaweap* 'Sacajawea' precedes the head (possessed) noun *uqasiqisa* 'words'.

(22) [Sacajawea-p uqasiq-isa] Naya Nuki aliagi-tsagtitqipa-at [Sacajawea-SG.ERG word-3SG.PL.ERG] N.Nuki be.sad.about-IND.TR-<u>3PL</u>.3SG<sup>12</sup> '[Sacajawea's words] made Naya Nuki feel very sad.'

In the case of a pronominal possessor, an overt possessor need not be present.

(23) nuli-i wife-3sg.sg 'his wife'

(Sommer et al. 2005a:4)

The agreement shown on possessives is important to the relationship between possessor and possessum; however, due to its complexity I save discussion of this agreement for section 3 and for the time being refer only to the relative order of the constituents.

The list in (24) summarizes the facts presented in this section.

- (24) a. Demonstratives, quantificational elements (including numerals and quantifiers), nominals behaving adjectivally, and relative clauses occur linearly to the right of head nouns when acting as modifiers. Their order may vary with respect to each other. Further, they agree in number and structural case with the head noun.
  - b. Demonstratives, quantificational elements, and relative clauses may act as head nouns.
  - c. Possessors precede the (head) noun they modify.

In section 3, I provide an account of the syntactic structure of WG noun phrases that takes all of these factors into consideration. In the next section, I discuss the representation of definiteness and specificity in WG.

2.2.2. **Definiteness and specificity.** As mentioned in the introduction to this paper, WG is an articleless language. While a lack of articles is often taken to indicate the absence of a DP projection, the central purpose here is to argue

<sup>(</sup>Thomasma 2007:22)

numeral 'two' is given no particular emphasis; in the latter example 'two' is focused.  $^{12}$  The verbal gloss has been simplified.

otherwise. A major area of consideration is the valuation and interpretation of a noun phrase's definiteness. The feature of definiteness straddles the line between syntax and semantics: while it is inherently semantic, it undeniably has syntactic consequences.

As noted by Bittner (1987), the use of definite and indefinite articles in translations is controversial. Most argue that, in clauses that are otherwise neutral, transitive objects are interpreted as definite (25a), while intransitive objects (i.e., oblique arguments of antipassive verbs) are indefinite (25b) (Bergsland 1955; Woodbury 1975; Fortescue 1984; Sadock 1984, as cited in Bittner 1987, Sadock 1991).

- (25) a. Jaaku-p illu sana-va-a Jacob-SG.ERG house.SG.ABS be.building-TR.IND-3SG.3SG 'Jacob is/was building **the** house.'
  - b. Jaaku illu-mik sana-Ø-vu-q Jacob.SG.ABS house-SG.INST be.building-AP-INTR.IND-3SG 'Jacob is/was building a house.' (Bittner 1987:5, emphasis mine)

Bittner, however, argues that this generalization is not correct. In (26) and (27), oblique (instrumental) arguments can be modified by determiners that are clearly definite: a demonstrative and universal quantifier, respectively.

- (26) [miiraq-mik taassu-minnga] isumagi-nnig-ssa-u-gut [child-SG.INST this-SG.INST] look.after-AP-FUT-INTR.IND-1PL 'We will look after this child.'
- (27) [atuartu-nik tama-nik] uqaluqatigi-nnig-sima-vu-q
  [student-PL.INST all-PL.INST] talk.with-AP-PERF-INTR.IND-3SG
  'He has talked with all the students.' (Bittner 1987:7)

Further, objects of transitive verbs are not universally definite; (28) and (29) show transitive objects made indefinite by quantifiers ('one (of them)' and 'some (of them)', respectively).

- (28) arlaat tigu-niar-uk one.of.them(ABS) take-IMP-2SG.3SG 'Take one of them!'
- (29) [illut taakkua ilaat] nuannari-galuar-pa-kka [house.PL these.PL some.of.them(PL)] like-actually-TR.IND-1SG.3PL 'I actually like some of these houses.' (Bittner 1987:8)

Bittner goes on to provide a scope-based account of WG antipassives, which demonstrates that the traditional position-based account of definiteness does not make the correct predictions for interpretation.<sup>13</sup>

<sup>&</sup>lt;sup>13</sup> I do not reproduce her argument here, but adopt her ultimate conclusion: the scope relation between antipassive constructions and sentential operators is clearly predicted by parametric alternations (Bittner 1987:59).

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Though Bittner's observation that structural position is not always indicative of definiteness interpretation is clearly correct, there are situations in which (in)definiteness can be forced. In (30), a novel object *iluliarsuaq* 'iceberg' is introduced in the discourse and occurs post-verbally, an order that contrasts with the default order SOV. It receives an indefinite interpretation.<sup>14</sup>

| (30) | taku-lir-pa-ra               | [iluliar-sua-q]   |                |          |
|------|------------------------------|-------------------|----------------|----------|
|      | see-begin-IND.TR-1SG.3SG     | [ice.berg-big-SG] |                |          |
|      | " I spotted [a giant iceberg | ]'                | (Sommer et al. | 2005b:5) |

Further (and keeping in mind Bittner's observations of the antipassive from (26) through (29) above), the instrumental case can be used for a discourse-new, indefinite reading, regardless of position relative to the verb:

- (31) a. [atuakka-nik] atuar-puq [books-PL.INST] read-IND.3SG 'He read [some books].'
  - b. [atuakka-t] atuar-pai
    [book.PL.ABS] read-IND.3SG.3PL
    'He read [the books].' (Fortescue 1984:249)
- (32) Aarimmi ullu-t ila-an-ni [nukappiaqqa-mik] sure.enough day-PL.ERG one.of-3PL.SG-LOC [boy-SG.INST] irni-vu-q give.birth-IND-3SG (Sommer et al. 2005a:2) 'And sure enough, one day she gave birth to [a boy].'

With these data in mind, any account of WG DP interpretation must be able to account for (i) (in)definiteness contrasts that conflict with the argued 'default' interpretation of a noun phrase and (ii) (in)definiteness contrasts that result from information structure.

Interpretation of specificity is separate from that of definiteness. In the singular (33) and plural (34) versions of the same indefinite existential, the construction may be interpreted as specific or non-specific (indicated in the translation line).

- (33) apiri-su-qar-puq kamat-tu-mik ask-INTR.PART-have-3SG.IND be.angry-INTR.PART-INST 'There is an angry questioner/Somebody asked angrily.'
- (34) apiri-su-qar-puq kamat-tu-nik ask-INTR.PART-have-3SG.IND be.angry-INTR.PART-PL.INST
   'There are some angry questioners/Some people asked angrily.' (Fortescue 1984:249-250)

Further, examples like (35) are ambiguous with respect to specificity (in the perspective of the addressee); according to Fortescue, the addition of a

<sup>&</sup>lt;sup>14</sup> It should be noted that the sentence-final position can force an indefinite reading, but the post-verbal order is not required to yield an indefinite reading.

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demonstrative (specific) or instrumental case (non-specific) would clarify this ambiguity.

(35) [inu-it marluk] taku-ai
[human.being-PL.ABS two.PL.ABS] see-IND.3SG.3PL
'He saw two men.' (Fortescue 1984:250)

In addition, as discussed briefly above, Bittner (1987) argues that sentential operators affect the scope of indefinites. In the following examples, the indefinite operator in the verbal complex restricts the interpretation of the transitive object to specific-only (36a), while both specific and non-specific readings are still available for the antipassive object (36b).

| (36) | a. | qajaq<br>kavak.SG.ABS                       | atur-junnaar-pa-a<br>use-no.longer-TR.IND-3SG.3SG                    | = A, *B           |
|------|----|---|--|-------------------|
|      | b. | qajaq-mik<br>kayak-SG.INST<br>'He no longer | atur-Ø-junnaar-pu-q<br>use-AP-no.longer-INTR.IND-3SG<br>uses kayak.' | = A, B            |
|      |    | A. One particu<br>B. Any kayak              | lar kayak.<br>at all.  | (Bittner 1987:29) |

The examples in (36) show that while it is possible to force a specific reading of an object, as in (36a), it is neither as clear-cut nor as marked as definiteness in WG. In (37) I summarize the key aspects of definiteness and specificity in WG:

- (37) a. By default, objects of transitive verbs are definite and objects of antipassive constructions are indefinite (i.e., objects in oblique cases).
  - b. There are clear exceptions to the generalization in (a): elements that are unambiguously definite/indefinite (e.g., demonstratives and quantifiers) clearly mark structures as (in)definite.
  - c. Information structure, such as movement of the verb above the object (30), can force an (in)definite reading.
  - d. (Non-)specificity can be forced, but the specificity of indefinites is ambiguous in the absence of clear indicators (see (33) through (36))

**2.2.3.** Definiteness as a syntactic feature. A number of languages exhibit the phenomenon of definiteness affecting morphosyntactic agreement. Semitic languages in particular show such agreement quite clearly (Borer 1988, 1996 and Wintner 2000 for Hebrew; Kramer 2010 for Amharic), as does Hungarian (Coppock and Wechsler 2012). Syntactic definiteness agreement comes in different forms. In Hebrew, for example, a noun phrase's definiteness is explicitly marked on its constituents.

(38) koll šešš ha-smalot ha-yapot ha-'elle šelli mi-'rhb all six the-dresses the-nice the-these mine from-US 'all these six nice dresses of mine from the US'

(Wintner 2000:322; boldface added)

In Hungarian, on the other hand, the definiteness of an object affects the verbal agreement affix, as the contrast between (39a) and (39b) shows.<sup>15</sup>

(39) a. Lát-om a madar-at see-1SG.DEF the bird-ACC 'I see the bird.'
b. Lát-ok egy madar-at see-1SG.INDEF a bird-ACC 'I see a bird.' (Coppock and Wechsler 2012:700; boldface added)

Arguments have also been made for definiteness agreement in weak declensions in Scandinavian (Julien 2005), though as an anonymous reviewer points out, such examples are not as clear-cut.

These examples provide a precedent for allowing definiteness to function as a syntactic feature in WG. In section 3, I return to the idea of syntactic definiteness agreement and how a DP-level can account for the behaviour of (in)definites.

# 2.3. Interim conclusion

In the previous subsections I have presented generalizations and exceptions to the ordering of noun phrase elements and the interpretation of (in)definiteness and (non-)specificity in WG. With respect to the latter, I have demonstrated that (in)definiteness is reflected in the syntax in two ways: it is affected by unambiguously (in)definite elements and it is affected by non-default structural order. In the next section, I use these observations to build a syntactic account of WG, showing that a D-head, while not overtly used for articles, is needed.

## 3. NOUN PHRASE STRUCTURE IN WEST GREENLANDIC

In this section I derive structures to account for the data presented in the previous sections. I begin with the basic theoretical basis and then introduce features and functional projections as they become relevant.

## 3.1. Theoretical assumptions

I assume the framework of the Minimalist Program as proposed and revised by Chomsky (1995, 2000, 2001, 2004, 2007, 2008), with some modifications. The two basic operations I will rely on are Merge and Agree. Merge is the combination of two syntactic objects into one larger syntactic object, which may subsequently Merge with other objects. This paper assumes Chomsky's (2004) distinction between External and Internal Merge, where External Merge is responsible for introducing new objects into a derivation and Internal Merge captures movement of objects already present. Agree is a relation between a Probe and a Goal, resulting in the valuation of uninterpretable features (uF) by interpretable (iF) ones;

<sup>&</sup>lt;sup>15</sup> Verbal agreement in Hungarian is more complex than I describe here, as the indefinite conjugation shown in (39) is also used when there is no object and when the object is first or second person. For the purposes of demonstration, however, I intend only to show that definiteness agreement with the verbal constituent does exist.

uninterpretable features enter a derivation unvalued and must be valued in order for a derivation to converge, while interpretable features enter the derivation already valued and are responsible for valuing uninterpretable features.

In addition, I do not adopt Kayne's (1994) antisymmetry due to the predictions it makes for head-final languages. First, antisymmetry assumes a predefined order for specifier-head- complement; WG is syntactically head-final (Bittner 1995), a configuration restricted in antisymmetry but not Minimalism (Chomsky 1995). Second, following Chomsky, I assume that agreement is the result of a probe-goal relationship (see the previous paragraph), rather than a relation between a head and a specifier. In section 3.4 I present a version of roll-up movement reminiscent of that proposed by Cinque (2000, 2005). Although Cinque's original account does obey antisymmetry, the movement itself is in principle possible, independent of framework.

The discussion of WG data showed DP-internal elements exhibiting Case and Number concord. As discussed in Carstens (2000, 2001), traditional Agree does not suffice to explain concord; therefore I adopt the method of feature-sharing (Frampton and Gutmann 2006, Pesetsky and Torrego 2007) in addition to traditional Agree. The process of feature-sharing proceeds as follows: once a given uF has been valued, it does not immediately delete as in traditional Agree; instead, it may value other uninterpretable instances of the same feature.<sup>16</sup>

In the representations that follow, I introduce features as they become relevant. Example (40) is a representation of feature valuation. Empty brackets indicate an unvalued feature; contrastively, any information in brackets represents the valuation of a given feature.

- (40) a. iF [val] = interpretable feature (valued)
  - b. uF [] = uninterpretable feature (unvalued)
  - c. uF [val] = uninterpretable feature (valued)

Feature-sharing is represented as a solid line connecting two features; movement is represented by a dotted line.

## 3.2. Overt elements

In this section I argue for structural representations of WG DPs. I introduce functional projections as they become relevant, beginning with NP (Noun Phrase) and NumP (Number Phrase). The following sections will also see DemP (Demonstrative Phrase), PossP (Possessive Phrase), and FocP (Focus Phrase).

The *Number* projection (NumP) comes from Ritter's (1991) work on Hebrew genitive constructions and subsequent papers by Bernstein (1991, 2001), Picallo (1991), and others. For the structures proposed in this paper, the NumP (Number Phrase) is the locus of number features for WG DPs. Singular and plural features for the noun reside on the Num head, which may also act as the initial position for overt numerals. The presented structures show interpretable number (iNum[val]) on the Num-head.

<sup>&</sup>lt;sup>16</sup> Multiple Agree (Hiraiwa 2001) is also compatible with the facts discussed here, though I discuss only feature- sharing for the sake of simplicity.

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NumP is what is minimally required to account for overt features in basic examples like (41), since the noun phrase has only number and structural case features. The example in (42) shows the Num head merging with NP (with interpretable person iP[val] and uninterpretable number uNum[]), then the interpretable number feature valuing uninterpretable number via feature-sharing.

(41) ... iluliar-q ... ice.berg-SG.ABS '... (an) iceberg'

 $(Sommer et al. 2005b:5)^{17}$ 



I reserve discussion of the representation of (in)definiteness in this structure for section 3.3.1.

In section 2.2.1 I discussed the distribution of elements that modify nouns. I now show the structure of basic examples of each type.

3.2.1 Demonstratives. To accommodate noun phrases containing demonstratives I assume a DemP, following Brugè (2002), who argues that demonstratives are merged in a position below D.<sup>18</sup>

I assume that the Dem-head is located immediately above the Num-head and has the following features: uninterpretable person and number; and interpretable definiteness (iDef[val]) and proximity (iProx[val]). The following trees are for example (20), repeated here as (43). In (44a) NumP and NP have already shared features, while the Dem head merges with valued DEFINITENESS and PROXIMITY and unvalued PERSON and NUMBER; in (44b) it receives its missing values via feature sharing from the closest available heads (N and Num, respectively).

(43) qimmi-t qaqurtu-t marluk taakku dog-PL white-PL two those 'those two white dogs'

<sup>&</sup>lt;sup>17</sup> For simplicity I have omitted an incorporated adjective; the full example is shown in (4).

<sup>&</sup>lt;sup>18</sup> As an anonymous reviewer points out, the DemP is not prompted by anything in particular in WG, since there is no immediately observable evidence of demonstratives merging lower in the structure (as modification may in fact be appositional). Further, it is conceivable to conclude that demonstratives are in fact D-elements, merging in the highest head of the noun phrase. I argue for a DemP approach to demonstrate that D does not need to redundantly exist to host functional elements that might in fact originate on other heads.



As with (41)/(42), there are no overt elements that require a functional projection higher than DemP.

**3.2.2.** Elements behaving like adjectives. As I demonstrated in section 2.2.1, not all 'adjectival' modifiers are equal—they may be nominals in apposition or relative clauses. In this section, I discuss the structural implications of the observed data and offer an account of their distribution.

The example in (6), repeated here as (45), shows two modifiers that behave like adjectives but are categorically not.

(45) kata-t qisu-it qirnir-tu-t hammer-PL wood-PL be.black-INTR.PART-PL 'black wooden hammers'

As I discussed in section 2.2.1, even though *katat* 'hammer' and *qisuit* 'wood' are clearly independently standing nouns, there is reason to conclude that they stand in some structural relation with one another. Two relatively simple solutions are available. The first is that nouns in apposition behave like compounds, much like in English compounds.

- (46) a. horse race = a race for horses
  - b. race horse = a horse that races

Another available option is to view appositiive modification as a type of construct, rather than a compound (Borer 1988 and references therein). Semitic languages, such as Hebrew, have constructs.

(47) pirxei gann yapim parxu
flowers.PL.CS garden.SG beautiful.PL flourished.PL.PAST
'beautiful garden flowers flourished' (Wintner 2000:325)

Construct forms may or may not be identical to *absolute* (used in any context) forms, as shown the following.

| (48) | absolute:  | sepr | sparim | xulca  | xulcot |                    |
|------|------------|------|--------|--------|--------|--------------------|
|      | construct: | sepr | spirei | xulcat | xulcot |                    |
|      |            | book | books  | shirt  | shirts | (Wintner 2000:325) |

Constructs are distinguished from compounds in a number of ways, including the following (identified in Wintner 2000:326).

- (49) a. The complement of a construct can be any noun phrase; compounds allow only single-worded, unmodified nouns as their complement.
  - b. The meaning of constructs is compositional; compounds are semantically opaque.
  - c. If the head of a compound is a derived noun, the complement is the understood object, whereas the complement of a construct might be the understood subject.

The examples in section 2.2.1 show that (49a) and (49b) point toward nominal modification being construct-like; depending on the type of structure adopted, (49c) may do the same.

Assuming a construct/compound approach to nominal modifiers, the head noun and its modifiers are part of the same NP. Due to the concord in WG, it is predicted that elements in a construct/compound are marked with the same agreement. This is borne out in examples like (15) above (repeated here as (50)), where a possessive interpretation cannot be distributed without appropriate agreement.

(50) \*kaata-q qisu-ga hammer-SG wood-3SG.SG 'wooden hammer (possessed)'

Because relative clause modifiers behave similarly to nominal modifiers, they too appear structurally as part of the head NP.<sup>19</sup>

3.2.3. Possessives. In this section I discuss possessive agreement in West Greenlandic and demonstrate that a D- head is needed to account for the observed

<sup>&</sup>lt;sup>19</sup> One question that arises is the internal structure of relative clauses. I do not offer a structure here but suggest that relative clauses may be handled like relative clauses in Mohawk (an Iroquoian language), which also involve deverbalization (Baker 1996). These constructions may be argued to have internal verbal structure with a relativizing head.

patterns. As discussed in the grammatical overview, possessed nouns agree with their possessor in person and number.

(51) [qasigissa-p ami-a] panir-sima-su-q [harbor.seal-SG.ERG skin-**3**SG.SG.ABS] dry-PERF-ELA-3SG.ABS 'The seal skin was dry.' (Sommer et al. 2005b:5)

The agreement paradigm for absolutive-marked DPs is presented in (52). Observe that on the horizontal axis the final vowel or vowel-consonant sequence does not change, but the initial consonant does between singular and plural possessum.

(52) Absolutive Morphology for Possessives:

| Possessor | Singular Possessum | Plural Possessur | <u>n</u> .           |
|-----------|--------------------|------------------|----------------------|
| 1st SG    | -ga                | - <u>kk</u> a    |                      |
| lst PL    | - <u>(r)p</u> ut   | - <u>v</u> ut    |                      |
| 2nd SG    | -(r)pit/vit        | -vit             | ,                    |
| 2nd PL    | - <u>(r)</u> si    | - si             |                      |
| 3rd sg    | - <u>a</u>         | - <u>i</u>       |                      |
| 3rd PL    | - <u>a</u> t       | -i/at            | (Fortescue 1984:207) |

I interpret this to mean that number marking for the possessed noun *precedes* agreement with the possessor. This agreement pattern has been observed for other languages with similar possessive-marking strategies, such as Hungarian.

| (53) | a <b>te</b><br>the <b>you.NOM</b><br>'your hats' |                  | te kalap-ja-i-d<br>you.NOM hat-POSS-PL-2SG<br>hats' (Szabolcs |                       |  |
|------|--|------------------|---|-----------------------|--|
| (54) | (a)<br>the                                       | Mari<br>Mari.nom | kalap-ja-i<br>hat-POSS-PL( <b>3SG</b> )                       | (0, 1, 1, 1, 1004, 1) |  |
|      | ·Ma  | ri's nats'       |   | (Szabolcsi 1994:1)    |  |

To account for these two types of agreement, I adopt the analysis in Langr (2014) for WG possessives, in which I make use of a DP-projection and two types of agreement. The examples in (55) and (56) show that a possessive marker ut(-i) similar to the ones in the Hungarian examples above does exist in WG in alienable possession constructions.

| (55) a. | piniartu-p<br>hunter-SG.ERG<br>'the hunter's me           | niqi- <b>ut-aa</b><br>meat- <b>POSS-3</b> SG.SG.ABS<br>at' | (Fortescue 1984:216) |
|---------|---|--|----------------------|
| b.      | niqi- <b>ut</b> -aa<br>meat-POSS-3SG.<br>'his meat' = the | SG<br>meat caught/stored by him                            | (Fortescue 1984:172) |

- c. niq-aa meat-POSS-3SG.SG 'his meat' = his flesh
- (56) a. savi-**ut**-aa knife-POSS-3SG.SG 'the knife he now owns'
  - b. savi-a knife-3SG.SG (Fortescue 1984:172)
     'his knife (an inalienable piece of his hunting equipment)'

An anonymous reviewer raises the question of whether glossing *-uti* as a possessive morpheme is misleading, for two reasons. First, it only applies to the ambiguous concept of "temporary possession", which excludes such things as body parts but is included in fine-grained semantic distinctions, such as in (56). Second, other translations gloss the morpheme as 'owned' (Fortescue et al. 2010:464). These are important points; however, they do not bear directly on syntactic analysis due to the fact that the morpheme (i) does indicate a particular type of possession (however transient it may be) and (ii) its structural position is constant. Thus, the examples in (55) and (56) can be used to establish the order noun-POSS-agreement for WG DPs.

Following the analysis of possessives in Langr (2014), I assume a PossP projection, located above NumP, as the structural layer whose specifier hosts the possessor (Anderson 1983–84, Longobardi 1994, Ritter 1991).<sup>20</sup> The Poss head is intended to host any possessive markers (as with *-uti* in (55) and (56)). The construction in (58) represents the possessive phrase in (57) (repeated from (55) above). The possessor DP, *piniartup* 'hunter's', has merged into the specifier position fully constructed, while the possessive marker *uti* is marked as POSS in the Poss head.

(57) piniartu-p niqi-**ut**-aa hunter-SG.ERG meat-**POSS-**3SG.SG.ABS 'the hunter's meat'

Unfortunately, this structure cannot account for the agreement pattern observed in possessive constructions. First, with respect to the matrix noun phrase, without some manner of feature- bundling the order of marking will be incorrect: the highest instance of number is structurally below the possessive marker (linearly to its left). This would give final order of head.noun- possessed.number-POSS. Second, there is no clear indication of how the features of the possessor are marked on the possessed noun phrase.

(Fortescue 1984:172)

<sup>&</sup>lt;sup>20</sup> I also assume that the ergative (possessive) case is inherent to the specifier of PossP based on parallels between possessors and ergative subjects in WG (Johns 1992, Fortescue 1995, Aldridge 2008 and references therein).



In order to account for the agreement, I follow Langr (2014), adopting a higher functional projection to act as an agreement-type projection that: (i) bears the phifeatures of the head noun phrase (which may then agree with the verbal complex), (ii) bears the features that agree with the possessor DP, and (iii) shows the clear order of POSS-matrix.agreement-possessor.agreement.

In the example in (59) (repeated from (22)), singular *Sacajaweap* 'Sacajawea's' is the possessor of the plural possessum uqasiqisa 'words'. The structure in (60) shows a functional projection FP sharing features of person and number with the matrix DP.

(59) [Sacajawea-p uqasiq-isa] Naya Nuki aliagi-tsagtitqipa-at [Sacajawea-SG.ERG word-3SG.PL.ERG] N.Nuki be.sad.about-IND.TR-3PL.3SG '[Sacajawea's words] made Naya Nuki feel very sad.'



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Using this FP, I follow Norris's (2012) distinction between noun-phrase-internal feature- agreement and possessor Case assignment. Specifically, I propose a distinction between noun- phrase-internal feature-sharing (for Person and Number features) and traditional Agree, where the phi-bearing-head probes for feature values. The construction in (61) shows the F-head probing for this agreement bundle in SpecPossP.



In this manner, it is possible to account for the observed agreement facts as well as the relative order of morphemes.

Langr (2014) leaves open what prompts D to probe for an additional set of phifeatures, but alludes to the transitive nature of Possessive DPs. It may well be that D must probe for two sets of phi-features in the same manner that particular verbs require multiple arguments. Regardless of this motivation, it is clear that the presence of D is needed to clearly explain possessive agreement patterns in WG.

#### 3.3. Representation of definiteness: Motivating D

As I showed in section 3.2.1, there are many examples in which a D-head does not appear to be necessary due to the fact that nothing *needs* to occupy D. However, in the previous subsection, I demonstrated that an additional functional projection is needed to account for possessive agreement constructions in WG; I have temporarily marked this as FP. In this section, I return to the discussion of (in)definiteness features and argue that the observed data motivates the analysis that the FP is in fact a DP.

**3.3.1 Valuation of definiteness.** Recall from the overview of definiteness in section 2.2.2 that at first glance, noun phrases in WG have default values for definiteness, but that word order, modifiers, and case marking can affect how definiteness is valued. To account for these facts, I suggest that an uninterpretable definiteness

feature (uDef[]) is present on the highest projection of the noun phrase, which is currently FP.

There are two ways in which uDef can be valued by an interpretable definiteness feature (iDef[val]), described in (62).

- (62) a. A DP-internal element such as Dem or a quantifier bears an interpretable definiteness feature (valued as [def] or [indef]).
  - b. A DP-external position bears an interpretable definiteness feature (valued as [def] or [indef], depending on the value of some higher projection). Valuation proceeds via traditional Agree.

I explain each of these options in turn. First, as I discussed in section 2.2.2, elements such as indefinite quantifiers can force indefiniteness on a noun phrase that might otherwise be interpreted as definite.

| (63) | [illut        | taakkua     | ilaat]            | nuannari-galuar-pa-kka |
|------|---------------|-------------|-------------------|------------------------|
|      | [house.PL     | these.PL    | some.of.them(PL)] | like-actually-TR.IND-  |
|      | 1sg.3pl       |             |                   |                        |
|      | 'I actually l | like some c | of these houses.' | (Bittner 1987:8)       |

In (63), there are two elements bearing interpretable definiteness values: *taakkua* 'these' and *ilaat* 'some(of them)'. Further, the noun phrase is the object of a transitive verb—an element that usually receives a definite interpretation. The indefinite quantifier, however, is what determines the definiteness of the noun phrase (val:[indef]); since the quantifier is structurally closest to the D-head, its value indefinite is what will appear on D.

To explain the agreement relation in (62), I turn to the account of Biskup (2006, 2009), who adopts Diesing's (1992) restrictive clause/nuclear scope split, arguing that the position of a DP in the vP or CP structure is what affects its interpretation. Biskup focuses on the feature of specificity (rather than definiteness) in Czech DPs. In Czech, scrambling objects out of vP serves to disambiguate the interpretation of specificity. The examples in (64) demonstrate; in (64a) an embedded object leads to an ambiguous interpretation of specificity, while in (64b) an EPP has attracted the DP out of the vP, leading to an unambiguously specific interpretation.

- (64) Context: Co je Marii? 'What is wrong with Marie?'
  - a. Marie<sub>1</sub> [ $_{\nu P}$  odpoledne [ $_{\nu P}$   $t_1$  zajela **psa**]] Marie.NOM in.the.afternoon ran.over **dog.ACC** 'Marie ran over {**her/the** or **a**} dog in the afternoon.'
  - b. Marie<sub>1</sub> **psa2** [ $_{\nu P}$  odpoledne [ $_{\nu P} t_1$  zajela  $t_2$ ]] Marie.NOM **dog.ACC** in.the.afternoon ran.over 'Marie ran over **her/the** dog in the afternoon.' (Biskup 2006:2-3)

I argue that this type of movement to a higher position is what values definiteness in WG. In (65), (65a) shows the starting position for the object, (65b) shows the movement of the subject, and (65c) shows the movement of the object out of  $\nu$ P.

| (65) | pir<br>hu<br>'T | niartu-p<br>nter-SG.ERG<br>he hunter caug | puisi<br>seal.SG.A<br>ght the seal         | BS<br>.'      | pisar-aa<br>catch-IND.3<br>(Fortescue | sg.3sg<br>1984:181) |
|------|-----------------|---|--|---------------|---------------------------------------|---------------------|
|      | a.              | [ <sub>vP</sub> piniartup<br>hunter       | o puisi<br>seal                            | pisar<br>caug | aa]<br>ht                             |                     |
|      | b.              | piniartup <sub>k</sub><br>hunter          | $[_{\nu \mathrm{P}} t_k$                   | puisi<br>seal | i pisaraa]<br>caught                  |                     |
|      | c.              | piniartup <sub>k</sub><br>hunter          | puisi <sub>i</sub> [ <sub>vP</sub><br>seal | $t_k t_i$     | piniartup<br>caught                   | $t_k$ ]             |

Since by default WG word order is SOV, this movement out of the scope of indefiniteness correctly predicts the apparent default interpretation of objects as definite. Following Biskup, the interpretable definiteness feature must reside on a higher projection than vP, such as Infl (IP). All else being equal, this feature can value a non-vP-internal DP as (in)definite.<sup>21</sup>

I propose that additional movements and interpretations can be the result of external factors (such as topicalization or focus). For example, (65) allows for additional orders, as shown in (66) and (67).

- (66) piniartup pisaraa puisi hunter caught seal
  'The hunter caught the seal.' (contrastive emphasis on 'seal')
- (67) puisi pisaraa piniartupseal caught hunter'The hunter caught the seal.' (contrastive emphasis on 'hunter')

In both of these examples, the two noun phrases involved are still interpreted as definite; however, the focus of the clause has changed.

In the next subsection, I present structures to represent the agreement described here.

**3.3.2.** FP as DP. The final step in addressing the issue of definiteness is its location in the functional hierarchy. Historically, definiteness has been a feature of D (Abney 1987; Bernstein 1991, 2001; Longobardi 1994; Szabolcsi 1994; among many others), as is made clear by languages like English where (in)definite determiners occupy the D-head.

(68)  $[_{DP}$  the  $[_{NumP}$  two  $[_{NP}$  books on seals]]]

I follow this concept and propose that the uninterpretable definiteness feature of WG noun phrases resides on the D-head, where it may be accessible to syntactic operations. Thus, the syntactic representation of an example like (41), repeated here

<sup>&</sup>lt;sup>21</sup> An anonymous reviewer wonders whether this mechanism for (in)definiteness valuation makes predictions about the possibility of vP-external indefinite arguments. In theory, they are possible: if, for example, a DP is attracted out of vP by a different feature, such as topic, it does not necessarily stop in the specifier of a higher projection and receive a definite value. Instead, it can be valued by an iDef feature that is indefinite on the functional head.

(Sommer et al. 2005b:5)



In structures where interpretable definiteness is internal to the DP (such as those that involve demonstratives), agreement between iDef and uDef occurs internally. Example (71), repeated from (26) above, is represented as the structure in (72). In (72a), the D merges with unvalued definiteness, person, and number; in (72b), the Dem head shares its interpretable person and number features via feature sharing as well as valuing uninterpretable definiteness.





In contrast, in structures where interpretable definiteness is external to DP, the uninterpretable definiteness feature on D must be valued by a clausal projection. Example (73), repeated from (31) above, is represented structurally in (74). I assume that the functional head that values definiteness is structurally higher than vP; I represent it as YP.<sup>22</sup> In (74a), the internal argument *books* merges with its phifeatures valued and uDef feature not valued; further, the functional projection YP bears interpretable definiteness. In (74b), the internal argument *books* moves to SpecYP via SpecvP, where its uDef feature is valued by Y.<sup>23</sup>

(73) [atuakka-t] atuar-pai [book.PL-ABS] read-IND.3SG.3PL 'He read [the books].'



 $<sup>^{22}</sup>$  I do not make any specific assumptions about the structure of the clause in WG (e.g., the particular functional heads), other than the existence of vP and the origin of the internal argument as complement of V. For perspectives on the clausal structure of WG, I direct the interested reader to Wharram (2003), Johns (2007, 2009), and references therein.

 $<sup>^{23}</sup>$  With respect to Case assignment: I assume that absolutive case is assigned to the DP in its merged position by a higher functional head (IP or vP) (see Berge 2011 and references therein for this and other perspectives).



To derive indefinite interpretations, several options exist. First, an unambiguously indefinite element in the DP (such as an indefinite quantifier) can force an indefinite value, as explored in preceding sections; the agreement will look like that in (72). Second, a DP can fail to receive a definite interpretation from the clause by being in a configuration that blocks iDef. Finally, a higher functional head with an interpretable indefiniteness feature can value the DP.<sup>24</sup>

For an example of the second manner of agreement: if the noun phrase fails to move to  $[Spec, \nu P]$ ,<sup>25</sup> iDef is blocked from valuing it; in such cases, interpretation defaults to indefinite.<sup>26</sup> This is possible in scenarios where the verb phrase appears to have moved around the DP, such as (4), repeated here as (75). In (75a) the iDef feature fails to value the uDef feature on the internal argument; in (75b) the uDef feature defaults to indefinite.<sup>27</sup>

- (75) Taku-lir-pa-ra [iluliar-sua-q] see-begin-IND.TR-1SG.3SG [ice.berg-big-SG.ABS] 'I spotted a giant iceberg.'
  - a. [YP iDef[val] [vP taku-lir-pa-ra [iluliar-sua-q uDef[]]]] b. [YP iDef[val] [VP taku-lir-pa-ra [iluliar-sua-q uDef[indef]] ]]

Default indefinite marking has been explored in the literature on Hungarian, where definiteness is reflected in verbal agreement (É. Kiss 2002). The current proposal,

<sup>&</sup>lt;sup>24</sup> Such as topic elements that are novel to the discourse.

<sup>&</sup>lt;sup>25</sup> Assuming a phase-based approach (Chomsky 2001 et seq.) and the Phase Impenetrability Condition.

<sup>&</sup>lt;sup>26</sup> See Preminger (2010) for a discussion of failed Agree.

<sup>&</sup>lt;sup>27</sup> An anonymous reviewer noted that this might be a look-ahead problem: the feature attracting the DP is technically higher than the phase in which it merges. I believe that this issue is circumvented by the fact that the vP phase does not spell out until the next phase head (potentially CP or something higher than the YP I suggest) merges, leaving the edge of DP accessible until that point.

though different in the type of agreement pattern, is reminiscent of Hungarian: in the absence of an agreeing element, indefiniteness is default.

The approach presented in this section provides a way of accounting for the way information structure affects the interpretation of definiteness, while at the same time allowing syntactic elements (such as demonstratives) to value definiteness. In this way, a syntactic representation of definiteness bridges the gap between syntax and the effects of information structure.

**3.3.3. Definiteness and semantic argumenthood.** In the previous subsections, I motivated and presented an account of (in)definiteness in WG that is driven by the syntax. As an anonymous reviewer points out, however, there are accounts of languages without overt D-elements where semantic interfaces handle D-related features such as definiteness. For example, Compton (2004) argues for a no-D analysis of North Baffin Inuit, and Wilhelm (2014) argues for a no-D analysis of Dene Suline. Both accounts argue that nouns are inherently arguments of type e, rather than predicates of type  $\langle e, t \rangle$ . The automatic argumenthood of nouns means that the noun does not need to combine with a determiner of type  $\langle e, t \rangle$ ,  $e \geq$  to render it an argument (thus, no D-head is needed for the semantic interfaces); this contrasts with languages like French which always require articles and are therefore argued to always require a determiner of type  $\langle e, t \rangle$ , e > for argumenthood.

This may or may not be the case for WG: if nouns merge as arguments of type e, they do not need a determiner element for semantic interpretation.<sup>28</sup> The argumenthood of the noun phrase is only one part of the puzzle, though; throughout this section I have looked at the syntactic features that support the existence of a functional D-head. Even in the absence of semantic motivation for D, the syntactic motivation still exists.

In the next section I briefly address a final semantic issue: the scope of indefinites in WG.

**3.3.4.** Interpretations of indefiniteness. Separate from the syntactic valuation of (in)definiteness is the semantic interpretation of indefinites. Indefinites in WG have specific restrictions on interpretation, as discussed extensively in Wharram (2003).

Wharram (2003) proposes an account of indefinites for Inuit languages (to include WG) that explains specific/non-specific interpretations of indefinites as well as scope relations with respect to indefinite DPs and other quantificational elements. He considers, specifically, obligatory wide and narrow scope interpretations that occur with respect to internal arguments and absolutive and ergative arguments.

First, the internal argument of an antipassive construction takes obligatory narrow scope (much like incorporated nouns (76)), as shown in (77) (Wharram 2003:39).

(76) Ulluriaq iqaluk-tu-nngit-t-u-q

Ulluriaq.SG.ABS fish-TUW-NEG-PART-[INTR]-3SG.ABS

- a. Ulluriaq didn't eat a (single) fish.
- b. #There is a fish/are a fish that Ulluriaq didn't eat.

 $<sup>^{28}</sup>$  While I set this matter aside for the current paper, I refer the interested reader to Langr (2013) for a more detailed discussion of the consequences of assuming an *e*-type interpretation of WG nouns.

(77) Akittiq iqalung-mik taku-Ø-nngit-t-u-q

- Akittiq.SG.ABS fish-SG.INST see-AP-NEG-PART-[INTR]-3SG.ABS
- a. Akittiq didn't/doesn't see (even) a single fish.
- b. #There is a (particular) fish that Akittiq doesn't/didn't see.

To explain this scope restriction, Wharram refers to van Geenhoven (1998), indicating that semantic incorporation is the culprit. Antipassive objects denote properties, meaning that any operator that takes scope over the antipassivized verb (e.g., negation in *taku-nngit-t-u-q* 'doesn't see') also takes scope over any semantic components contributing to its meaning (e.g., *iqalung- mik* 'fish').

Second, ergative and absolutive indefinites obligatorily take wide scope, exemplified by (78) and (79) (Wharram 2003:39).

- (78) Taqqialu-up [tuktu] taku-lau-nngit-t-a-(ng)a taqqilau-SG.ERG [caribou.SG.ABS] see-PAST-NEG-PART-[TR]-3SG.3SG a. #Taqqialuk didn't see a (single) caribou.
  - b. There is a (certain) caribou Taqqialuk didn't see.
- (79) [Angunaskuti atautsiq] ani-lau-nngit-t-uq [hunter.SG.ABS one.SG.ABS] leave-PAST-NEG-PART-[INTR]-3SG a. #It is not the case that any hunter left.
  - b. There is one (particular) hunter that didn't leave.

Wharram suggests that there is a phonetically null indefinite article in Inuit, which is inserted based on a contextually determined 'choice function' (p. 76). In brief, it is the information structure that determines the required scope relations of absolutive and ergative indefinites; the Case-assigning head is responsible for determining scope relations.

With respect to the present account, Wharram's semantic discussion of indefinites does not cause any conflicts—the selection of an (in)definite interpretation can still be left to syntactic relations, and scope interpretations of indefinites can rightly be assigned to semantic interfaces. Movement for the interpretation of definiteness does not preclude movement for semantic operations. Additionally, Wharram assumes a DP-based syntax by default, using a syntactic structure similar to Bittner and Hale's (1996), which argues for a KP > DP > NP hierarchy.

In the previous subsections I have proposed a way to account for the observed values of definiteness in WG. As shown in the preceding examples, information structure in WG has a direct and complex bearing on definiteness values. Importantly, however, the presented account is able to explain forced interpretations of (in)definiteness in a simple, noun-phrase-internal way.

# 3.4. Word order variation

Recall from the discussion in section 2.2.1 that the word order in (81) is another possible variation of (80), repeated from (20) above.

- (80) qimmi-t qaqurtu-t **marluk taakku** dog-PL white-PL **two.PL those.PL** 'those (two white dogs)'
- (81) qimmi-t qaqurtu-t **taakku marluk** dog-PL white-PL **those two** 'those two white dogs'

As I noted, the numeral in (81) receives some sense of focus. To account for this variation, I adopt 'roll-up' movement (Cinque 2000, 2005), whereby the noun phrase raises and pied- pipes modifiers. In this manner, it is possible to derive the difference in word order and interpretation.

To account for focus-based changes, I posit a DP-internal Focus head (Giusti 1996, Aboh 2004, Corver and van Koppen 2009). The change in interpretation seen in WG is similar to that of other languages with proposed DP-internal Focus projections, such as Dutch. For example, the order of adjectives in Dutch is relatively rigid except in cases where a particular adjective is focused (indicated in (82b) by all-caps).

| (82) a. | de roze Amerikaanse<br>the pink American<br>'the pink American cars' | auto's<br>cars  |    |
|---------|--|---|----|
| b.      | de AMERIKAANSE<br>the American<br>'the AMERICAN pink cars            | roze auto's<br>pink cars<br>s' (Corver and van Koppen 2009:3– | 4) |

In the following example, I have posted a Foc(us) Phrase bearing an EPP feature, which acts as a trigger for the movement sequence.

In (83a), the full structure is shown with the original order in (80) *dogs white two those*. In the first step, the full NP moves from its initial position to land in [Spec,DemP]; here, the order is still *dogs white two those*. In (83b), the full NumP, containing the trace of NP, moves from its position to [Spec,FocP]; the order is now *two dogs white those*. Next, in (83c), the full DemP, containing the trace of NumP, moves to [Spec,DP]; the order is now *dogs white those two*, as shown in (83d).





Note that the focused element, *two*, is positioned in [Spec,FocP], where it receives a focused interpretation.

**3.4.1 Why roll-up movement?** There are two other possible ways to explain the change in ordering: (i) the numeral undergoes head movement to a higher functional projection (Focus, D, or some quantificational head), or (ii) nominal constituents may freely adjoin. With respect to the latter option, free adjunction would leave open the question of how the numeral receives a focused interpretation. The former option leaves open the question of *why* the numeral is able to head-move around the Dem head.

Therefore, in order to account for variation in ordering and the respective interpretation of different orders, a functional level above Focus is required. As the previous sections motivate the existence of D, it logically follows that this head acts as the needed functional level.

# 3.5. Interim summary

In the previous subsections, I have shown that the DP-layer is necessary in WG for three reasons. First, the D-head acts as the locus of agreement features in Possessive DPs. Second, the D-head hosts the uninterpretable definiteness feature, which can be valued DP-internally or by the larger CP structure. Finally, [Spec,DP] acts as a landing site for movement in DP-internal word-order variations.

# 4. CONCLUSION

In this paper I have argued for the existence of a DP-layer in West Greenlandic Inuit. First, I showed that the D-head is the locus of possessor agreement features in possessive constructions be demonstrating that a functional head higher than Poss is needed for agreement. I then demonstrated that the D-head is the locus of the uninterpretable definiteness feature, which may be valued in a few different ways: either by a DP-internal element marked with an interpretable definiteness feature or by the DP's position in the larger CP structure. Additionally, I proposed a mechanism of (in)definiteness agreement that is compatible with apparent default values of definiteness as well as interpretations that occur as the result of information structure. Finally, I demonstrated that the position of [Spec,DP] can be used as a landing site for DP-internal movement such as focalization.

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