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In this paper we describe the structure and functional categories of the noun phrase in Hawrami, a Kurdish / Northwestern Iranian language spoken in a region between Iran and Iraq, paying special attention to NP-internal agreement or concord. The major description of Hawrami, MacKenzie 1966, concentrates on morphology and describes a version of the language as spoken by previous generations in Nausud (Luhon), whereas the version of the language which we are describing is spoken in Pâwa, 10 miles to the south-east. While the dialect we describe is obviously the same language as that described by MacKenzie, there are important differences especially in the form of agreement affixes. This paper concentrates on the morphosyntax of the Izafe affix, whose pattern of agreement provides crucial evidence for the structure of the noun phrase, particularly the hierarchic relations among the various functional categories of the noun phrase, including the definite article, number, demonstrative and possessive. Given the standard assumption that agreement is always local, and that what matters is structural locality, not linear locality, these agreement facts enable us to draw firm conclusions about structural relations among the categories in the noun phrase.

1. The Izafe, definiteness, number, and demonstratives

The Izafe (also spelled Ezafe, particularly in connection with Persian) is an inflection on modified categories in the noun phrase, corresponding to English *of* in some of its uses but not others. In Persian, one affix *-e* is used for many functions, whereas in Hawrami Izafe has several different realizations, *-i, -æ, -e, -u*, the choice being based on the category of the modifier and the presence and the nature of certain agreement-triggering elements such as number and definiteness.[1]

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* Research for this paper was supported by a grant from the Leverhulme Foundation to Anders Holmberg. We would like to thank our Hawrami consultant, Koresh Rafie, for his invaluable assistance. The number of speakers of Hawrami is unknown, but is probably less than 100,000, possibly less than 50,000. We take no position on the historical relationship between Hawrami and closely related languages such as Sorani, Kurmandji and Zazaki.

[1] Gender exists in Hawrami, but in this dialect, feminine suffixation on adjectives is dispreferred. Thus *žæni zɪl-æ* "big woman" is judged to be "not common", compared to *žæni zɪl*. Feminine adjectives are rare in our notes, so we do not discuss gender agreement.

Nouns are morphologically bare in their citation form (*æsp* "horse") and adjectives are postnominal. The Izafe suffix *-i* is added to the head noun when it comes before an adjective, and if the noun is modified by more than one adjective, each adjective except the last one is also affixed with the Izafe *-i*.

(1) a. æsp-**i** sya:w   "black horse"
          horse-IZ black
    b. bæsp-**i** s ya:w-**i** zıl   "big black horse"
          horse-IZ black- IZ big
    c. æsp-**i** zıl -**i** sya:w-**i** xas   "good big black horse"
          horse-IZ big-IZ black - IZ good

Taking a noun phrase consisting of a noun and attributive adjectives to be basically [[[[N] A] A]...A], each modified constituent is marked with the suffix *-i*.
    The Izafe suffix appears not only before lexical adjectives, but also before deverbal stative predicates, which may have the past suffix *-d-* or the negative *na-*, thus Izafe is not limited to appearing before lexical adjectives.

(2) a. dræxt-**i** mær-d-æ   "dead tree"
          tree -IZ   die -past
    b. pyæ-**i** na -raħæt   "uncomfortable man"
          man -IZ not -comfortable

The appearance of the Izafe on a noun with the indefinite suffix *-ewæ* is optional, but this optionality exists only on the noun. Omission of the Izafe on an adjective is not possible.

(3) a. mar-**ewæ** zıl -**i** raš
          snake- indef big -IZ black
    b. mar -**ew** -**i** zıl -**i** raš   "a big black snake"
          snake -indef-IZ big -IZ black
    c. *mar-ewæ zıl-∅ raš

We treat this as optional realization: *-i* may be omitted after the indefinite suffix.
    The Izafe suffix is added to the end of the modifier phrase, and does not appear on every word within a complex modifier such as "very long".

(4) mar-i [fra drež]-**i** zıl   "big, very long snake"
      snake-IZ very long -IZ big

Prehead elements (various quantifiers) do not bear the Izafe suffix.

(5) a. **faqat** tut-ewæ   "some dog"   b. **hæyč** kawɨr-e   "any sheep"
        some dog-indef   any   sheep -PL

    c. **kam** mar   "which snake?" d. **čɨnn** mar -e   "how many snakes"
       which snake   how many snake-PL

    e. **yær-ʊmin** ta:š –ækæ   "the third stone"
        three-ADJ   stone -def. art.

We conclude that the Izafe *-i* is suffixed to a NP modified by an adjective, as a "phrasal affix" (we discuss the relationship of pre-head modifiers to the NP later).

(6)
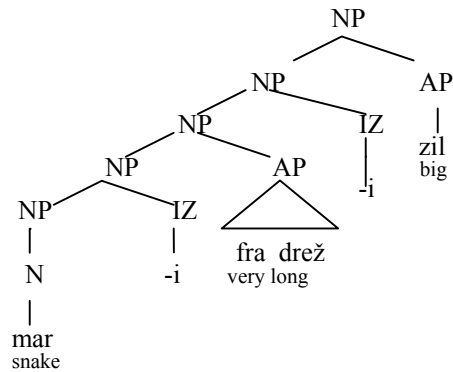
Marking of definiteness and the resulting pattern of concord provides our first look at the agreement properties of Izafe. The definite article *-ækæ* appears at the end of the phrase; an adjective will have the Izafe suffix, but in this case it is realised as *-æ*. The definite article, unlike the indefinite article *-ewæ*, attaches to the end of the NP, and therefore follows any adjectives. All adjectives except the last one are marked with the definite Izafe *-æ*.

(7) a. æsp-ækæ   "the horse"
        horse-def.art.

    b. æsp-**æ**   zɪl-ækæ   "the big horse"
       horse-IZ_def big-def.art.

    c. *æsp-**i** zɪl-ækæ   "the big horse"
       horse -IZ big-def.art.

    d. æsp-**æ**   sya:w-**æ**   zɪl -ækæ   "the big black horse"
       horse-IZ_def black -IZ_def big-def.art.

cf. e.   qrwa:q-**ew** **-i** sawz-**i** zɪl   "a big green frog"
           frog   -indef-IZ green -IZ big

We assume the structure in (8); furthermore, we assume that the Izafe must agree in features with the definite article (details are discussed below).

(8)
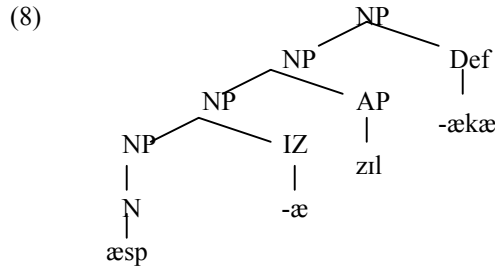
In this case, IZ agrees in definiteness feature with the head -*ækæ*.[2]

Plural noun phrases are indicated with the affix -*e* (also -*a:*, which we have not investigated) which appears at the right edge of the phrase. Like the definite article, this affix governs agreement on the Izafe suffix, so the Izafe suffix in a noun phrase before the plural marker -*e* takes the form -*e* rather than -*i*.

(9) a.   wres   "rope"   b.   wres-**e**   "ropes"
     c.   wres-**e** drež-**e**"long ropes" d.   wres-**e** drež-**e** xas-**e** "good long ropes"
          rope -IZ$_{pl}$ long -PL   rope -IZ$_{pl}$ long -IZ$_{pl}$ good-PL

As with the default form of the Izafe suffix, the plural Izafe does not appear inside an adjective phrase, but agreement will propagate past such a phrase

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[2] We adopt the following conventions for labelling nodes in nominal projections: We distinguish only between 'NP', 'PossP', and 'DP', where DP dominates PossP and NP, and PossP dominates NP, and furthermore, D closes the nominal projection. As will be seen below, the definite suffix -*ækæ* occurs in the scope of a Possessor, and even in the scope of a number-denoting functional head, and therefore does not close the nominal projection. It is therefore part of the NP-portion of the nominal projection. Def and the plural suffix PL (dealt with below) are nonetheless heads, PL selecting Def, but not vice versa. The logic of our approach dictates that nominal arguments have a covert D as the highest functional head, unless they have an overt one (see discussion of the demonstrative below). We do not, however, include such a category in our representations. An alternative would have been adopting a label-free representation, as advocated by Collins (2000).

(10) mar -**e** fræ drež-**e** zıl-e   "big, very long snakes"
　　　snake-IZ$_{pl}$ very long -IZ$_{pl}$ big-PL

The example in (11) shows the plural affix with a numeral.

(11) du-e æsp -**e**   zıl-**e**   sya:w-e   "2 big black horses"
　　　two-PL horse-IZ$_{pl}$ big -IZ$_{pl}$ black -PL

　　Overt plural marking on the NP is optional when plurality is semantically re-coverable from a numeral. The form of the Izafe suffix is therefore plural -*e* just in case there is an overt plural marker at the end of the clause, and is otherwise -*i*.

(12) a.   due æsp -e zıl-e   "two big horses"
　　　　　two horse-IZ$_{pl}$ big-PL
　　　b.   due æsp-i zıl   "two big horses"
　　　　　two horse-IZ big

Plural agreement of the Izafe is required if the noun phrase ends with a plural marker; the plural is at the end of the noun phrase, if it is present anywhere.

(13) a.   *due æsp-**i** zıl-**e**   b.   *æsp-**e** zıl, *æsp-**i** zıl-**e**

Izafe marking itself is not optional

(14) a.   *due æsp zıl(-e)   (no Izafe, with or without final plural)
　　　b.   *due æsp-e zıl   (plural Izafe without the triggering plural suffix)

This shows that the plural Izafe suffix is due to agreement, not semantic plurality.
　　Definiteness and plurality can be combined in a noun phrase, and the definite article follows the plural marker (which may be -*e*, -*a:* or -*a:n* in free variation). If the NP contains an adjective, and consequently contains an Izafe suffix, this Izafe suffix will have the definite form -*æ*, not the plural form -*e*.

(15) a.   wres-æk -{**e**, -**a:**, -**a:n**}   "the ropes"
　　　　　rope -def.art.-PL
　　　b.   wres-**æ** drež-**æ** xas -æk   -e /-a:n "the good long ropes"
　　　　　rope -IZ$_{def}$ long -IZ$_{def}$ good-def.art.-PL
　　　c.   *wres-**e** drež -**e** xas -æk   -e   "the good long ropes"
　　　　　rope -IZ$_{pl}$ long -IZ$_{pl}$ good-def.art.-PL

Given the principle (universal, as far as we know) that agreement is structurally local, the fact that agreeing Izafe agrees with the definite article and not with the plural suffix in (15) means that the structure is as in (16): the definite article is c-commanded by the plural suffix.

(16)
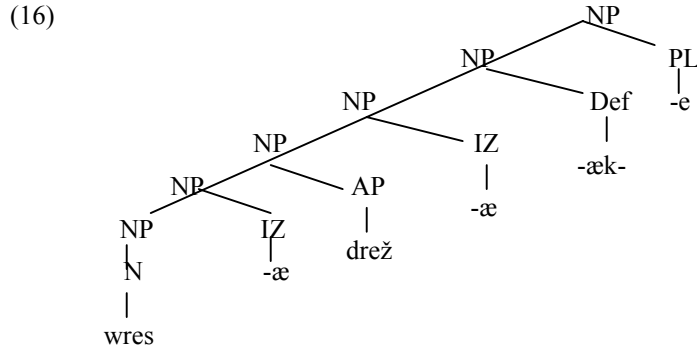
This is unexpected given what we know about the ordering of definiteness and number in other languages (see for instance Rijkhoff 2002).[3] The conclusion that the number suffix c-commands the definiteness suffix in Hawrami seems inescapable, though. This means that the suffixed definite article does not close the nominal projection (the way D does under the standard DP hypothesis). We indicate this formally by leaving Def dominated by NP, not DP (see footnote 2).

As expected, the definite Izafe suffix -æ is used in definite clauses with plural numbers, regardless of the presence of overt plurality at the right edge.

(17) a. duæ æsp-**æ**   zɪl -æk -aːn   "the two big horses"
           two   horse-IZ$_{def}$ big-def.art.-PL
      b. duæ æsp-**æ**   zɪl-ækæ   idem
           two   horse-IZ$_{def}$ big-def.art.

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[3] Rijkhoff (2002) claims, on the basis of a carefully sampled set of languages, that expressions of Locality, for example demonstratives, universally take scope over (i.e. are structurally higher than) expressions of Quantity, for example number or numerals, which in turn take scope over expressions of Quality, for example adjectives. He contends that "/d/efinite articles can also be regarded as localizing elements" (p. 185). If so, then Hawrami appears to present a counterexample to Rijkhoff's generalization. A more careful study of the semantics of the Hawrami number suffix, or of the definite article, might explain why Hawrami looks like a counterexample to the proposed universal.

The numeral (*duæ*, not *due*) agrees with the definite article, showing that the numeral is structurally lower than the article. We assume the following structure:

(18)
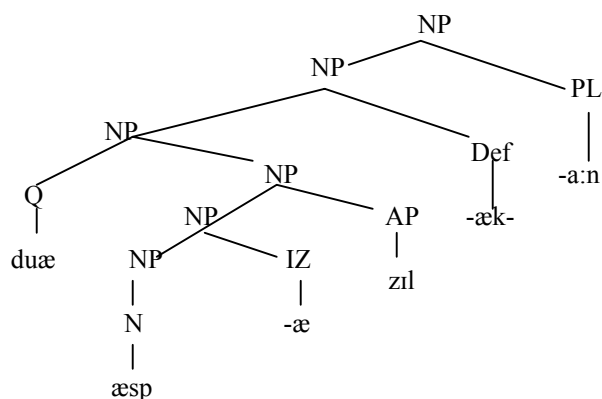
Thus both the numeral and the Izafe agree with the structurally local definite article. In the absence of a definite article, the form of the numeral "two" is *due*, whether there is plural marking or not. This indicates that this is the default form of the numeral, rather than (or in addition to) being the plural-agreeing form.

The definite Izafe suffix -*æ* also appears when the clause has a demonstrative particle at the left edge of the clause. The demonstrative consists of two parts: a prenominal particle *a:*, denoting distal (hence *that*), or *i*, denoting proximate (hence *this*) and a suffix -*æ* placed at the rightmost edge of the noun phrase. The suffix, we assume, denotes definiteness. In the following examples the final -*æ* is part of the demonstrative, while other cases of -*æ* are the Izafe.

(19) a. a: æsp -**æ**   "that horse"
            that horse-IZ$_{def}$
       b. a: æsp -**æ**   sya:w-**æ**   "that black horse"
            that horse-IZ$_{def}$ black -IZ$_{def}$
       c. a: æsp -**æ**   zɪl-**æ** sya:w-**æ**   "that big black horse"
            that horse-IZ$_{def}$ big-IZ$_{def}$ black -IZ$_{def}$
       d. a: aħmað-**æ**   zɪl-**æ**   "that old Ahmad"
            that Ahmad -IZ$_{def}$ big-IZ$_{def}$

In plural noun phrases modified by a demonstrative, the definite Izafe -*æ* still prevails. The final suffix -*æ* is not pronounced in this case (hence phonologically, /sya:w-e-æ/ → [sya:we]), but, we assume, is present syntactically.

(20) a. i   æsp -æ   sya:w-e   "these black horses"
         these horse -IZ_def black   -PL
     b. i   æsp-æ   pir-æ   sya:w-e   "these old black horses"
         these horse -IZ_def old-IZ_def black -PL

Assuming locality of agreement, this implies the structure (21): the prenominal demonstrative is structurally closer to the Izafe suffix than the plural suffix is, so it controls agreement on the Izafe. The prenominal part of the demonstrative is labelled DEM1 and the postnominal part, unrealized in this case, is labelled DEM2. We assume that DEM2 is a D (see footnote 2), hence projecting DP.

(21)
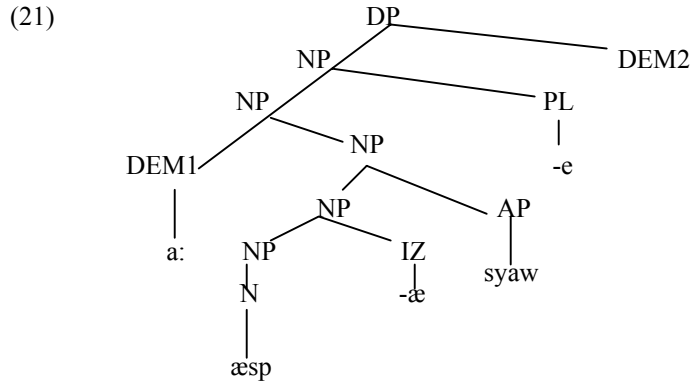
The prenominal particle DEM1 and the definite article have complementary distribution.

(22) ***a:** æsp-æ sya:w-**ækæ**

This supports the claim that they occupy the same structural slot, c-commanding all adjectives but c-commanded by the number marker. Therefore both of them block agreement between the plural marker and the Izafe, even though DEM1 is spelled out prenominally, while Def is spelled out postnominally.

The postnominal modifier *pesæ* "such" patterns neither with adjectives nor with the functional categories discussed so far. Like an adjective, it requires Izafe on the NP that precedes it, and does not trigger any kind of agreement on the Izafe (which therefore has the default form -*i*).

(23) bɨz-i pesæ   "such a goat"
       goat-IZ such

What is unique about *pesæ* is that it itself does not take an Izafe suffiz when it comes before an adjective

(24) gošt-i pesæ xas   (*gošt-i pes -i xas)   "such good meat"
       meat-IZ such good   meat -IZ such-IZ good

   The plural marker -*e* is placed outside *pesæ*, and is structurally higher than *pesæ*. As *pesæ* does not control agreement, it also does not block agreement between the plural marker and the Izafe, as shown in example (25c).

(25) a.   bɨz-e   pes-e   "such goats"
            goat-IZ$_{pl}$ such-PL
      b.   bɨz-e   sya:w-e zɨl-e   pes-e   "such big black goats"
            goat-IZ$_{pl}$ black   -IZ$_{pl}$ big -IZ$_{pl}$ such-PL
      c.   bɨz-e   pesæ syaw-e   zɨl-e   "such big black goats"
            goat-IZ$_{pl}$ such   black -IZ$_{pl}$ big-PL

   Pesæ can take the form *pes-e* only at the edge of the phrase, i.e. it may host PL (plural) but not IZ. This fact shows that plural -*e* at the edge of the noun phrase is syntactically different from the homophonous plural agreement on the Izafe: -*e* at the end of the NP is a functional head, but inside the NP it is an agreement-governed variant of Izafe.

(26) a.   tir -e drež-e pes-**e**   "such long arrows"
            arrow-IZ$_{pl}$ long -IZ$_{pl}$ such-PL
      b.   tir -e pesæ/*pes-**e** drež-e   "such long arrows"
            arrow-IZ$_{pl}$ such / *such -IZ$_{pl}$ long-PL

2. Possessive noun phrases

   A third form of Izafe agreement is found in possessive noun phrases, where Izafe is realised as -*u* on the possessed noun's phrase. In possessive constructions, the possessor also has a case suffix -*i* at the end of its phrase.

(27) a.   pæl -**u**   haɫo-**i**   "feather of eagle"
            feather-IZ$_{poss}$ eagle -obl

    b.   ya:næ-**u**   žæn -ækæ -**i**   "house of the woman"
          house -IZ$_{poss}$ woman-def.art.-obl
    c.   tut-ewæ-**u**   zawro-kæ -**i**   "a dog of the child"
          dog-indef -IZ$_{poss}$ child   -def.art. -obl

The possessor case suffix -*i* is realized only on singular possessors.

(28) qnič-a:-**u** bɨz -a:n-(***i**)   "tails of goats"
     tail -PL -IZ$_{poss}$ goat -PL -(obl)

The form -*u* is also found on certain prepositions and other nominal collocations.

(29) a.   ser-u mezækæ-i   "on the table"
     b.   ša:r-u pa:wæ-i   "town of Pawa"

   The possessor can be a full DP, thus can have definite articles and adjectives, inter alios.

(30) a.   æsp-u   žæn -æ zɪl-ækæ -i   "horse of the big woman"
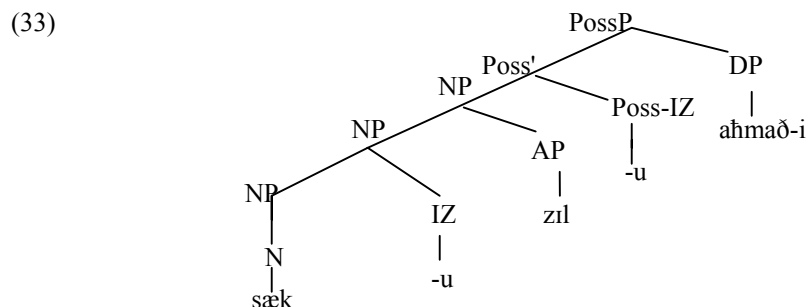   horse-IZ$_{poss}$ woman-IZ$_{def}$ big-def.art-obl

If the possessed noun phrase contains adjectives and therefore contains multiple Izafe-suffixes, these will all agree with "possessed-Izafe" -*u*.

(31) a.   sæk-**u**   zɪl-**u**   aħmað-i   "A's big sack"
          sack -IZ$_{poss}$ big -IZ$_{poss}$ Ahmed -obl
     b.   ktew-**u** sya:w-**u** zɪl -**u**   pya:-kæ -i   "the man's big black book"
          book -IZ$_{poss}$ black -IZ$_{poss}$ big-IZ$_{poss}$ man -def.art.obl
     c. *sær-**i** zɪl -**u**   mar -ewæ-i   "big head of a snake"
          head -IZ big -IZ$_{poss}$ snake-indef -obl

The possessed noun phrase can itself be definite-marked or indefinite marked. As (32) shows, the possessed-marker -*u* appears after the definite article.

(32) a.   qnič-ækæ -u   bɪzæ-kæ -i   "the tail of the goat"
          tail   -def.art.-IZ$_{poss}$ goat -def.art.-obl
     b.   qnič-ewæ-u   bɪzæ-i   "a tail of (a) goat"
          tail   -indef -IZ$_{poss}$ goat -obl

The structure of the possessor construction is as follows.

(33)

```
                                              PossP
                                        Poss'          DP
                                   NP        Poss-IZ    |
                              NP        AP      |     ahmað-i
                         NP        IZ   |      -u
                         |         |   zıl
                         N        -u
                        sæk
```

   We claim that the Poss(essee)-Izafe *-u* is not categorially identical with the other forms of the Izafe discussed so far. The Izafe realized as *-i*, *-e*, or *-æ* in Hawrami is a "pure linking element" devoid of interpretable features, whose role is, loosely speaking, to overtly express the syntactic relation between a head and an AP modifier in the noun phrase (we therefore call it 'AP-Izafe'). The fact that it is subject to agreement with various interpretable functional categories such as the definite article and the plural suffix we take to be an indication of its status as an uninterpretable category.[4] Poss-Izafe realized as *-u* also has the linking function in the special case when the modifier is a DP or NP. However, unlike AP-Izafe, it is not subject to agreement, but instead *triggers* agreement on AP-Izafe, in the manner of the definite article, the demonstrative, and the plural suffix. That Poss-Izafe triggers agreement on AP-Izafe is shown in (31a) where the lower Izafe *-u* attached to *sæk* is the usual Izafe, pronounced *-u* because it agrees with Poss-Izafe. It is harder to demonstrate that Poss-Izafe is not itself subject to agreement; we return to this below. Since Poss-Izafe occurs whenever the noun combines with a nominal phrase marked with the oblique case-suffix *-i*, we assume that Poss-Izafe assigns oblique case. We classify it as a determiner.[5] As mentioned, it occurs not only in construction with a possessor, but also in other nominal collocations, such as (34a), and also in PPs, as in (34b), always accompanied by oblique case.

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[4] See Chomsky (1995: 277-8) on the distinction between interpretable and uninterpretable features. Chomsky (2001) proposes that uninterpretable features enter the syntax unvalued, and therefore must receive the values which determine their pronunciation in the course of the syntactic derivation by agreement with interpretable features. His favorite example is subject-verb agreement, i.e. the person and number features spelled out on the finite verb in many languages, inherently unvalued but assigned a value by agreement with the interpretable (inherently valued) person and number features of the subject. The Izafe spelled out as *-i, -e-* or *-æ* is another such category, if we are right.
[5] It is thereby closely related to English *of* in the construction *a friend of John's* as analyzed in Kayne (1994: 85-86).

(34) a.   ša:r-**u** pa:wæ-i   "town of Pawa"
              town-IZ Pawa -obl
     b.   ser-**u** mezæ-kæ -i   "on the table"
              on -IZ table   -def.art-obl

The reason why Poss-Izafe -*u* appears with prepositions such as *ser* "on" is that these prepositions are actually nouns, which do not on their own assign case (see Ghomeshi 1997 for discussion of the corresponding prepositions in Persian).

Agreement with Poss-Izafe is blocked by an "inside" definite article (as expected, given locality of agreement).

(35) a. sæk-**æ** zıl -ækæ-u   aħmað-i   "A's big sack"
              sack -IZ$_{def}$ big-def.art.-IZ$_{poss}$ Ahmed -obl
     b. æsp-**æ** syæw-ækæ-u   žiwa:-i   "Zhiwa's black horse"
              horse-IZ$_{def}$ black -def.art.-IZ$_{poss}$ Zhiwa -obl
     c. ktew-**æ** sya:w-**æ** zıl -ækæ -u   pya:-kæ -i "the man's big black book"
              book -IZ$_{def}$ black -IZ$_{def}$ big -def.art.-IZ$_{poss}$ man-def.art-obl
     d. aw æsp-**æ** sya:w-ækæ-u   tær -u   aħmæð-i "A's other black horse"
              other horse-IZ$_{def}$ black -def.art -IZ$_{poss}$ other-IZ$_{poss}$ Ahmad -obl

The following is the structure of the noun phrase with a definite possessee. As can be seen, the definite article is closer to the AP-Izafe than Poss-Izafe -*u* is, and therefore controls the agreement on the AP-Izafe.

(36)
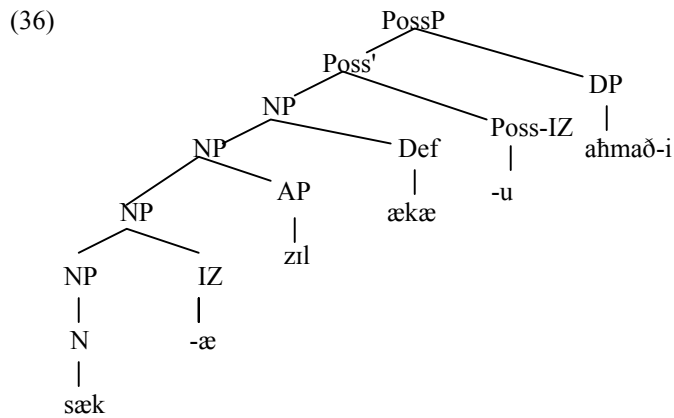
Possessive constructions allow us to investigate some surprising properties of the postnominal part *-æ* of the demonstrative, which appears at the end of the entire phrase, even after the possessor phrase.

(37) a. æsp-æ   sya:w-ækæ-u   žiwa:-i   "the black horse of Zhiwa"
         horse-IZ$_{def}$ black -def.art -IZ$_{poss}$ Zhiwa -obl

     b. a: čak^{w}š -æ   zıl -u   žiwa:-i -**æ**   "that big hammer of Zhiwa"
         that hammer -IZ$_{def}$ big-IZ$_{poss}$ Zhiwa -obl -def

     c. a: æsp-u   kæs -ewi -**æ**   "that horse of a person"
         that horse -IZ$_{def}$ person-indef.-def

Example (b) reinforces the conclusion reached above in connection with (19)-(20) that the prenominal demonstrative particle is merged low in the NP, in this case lower than Poss-Izafe, as it controls agreement on the AP-Izafe. The contrast between (b) and (c) indicates that the phrase-final suffix *-æ* bears no relation to the possessor, which is definite in (b), indefinite in (c), but is the other half of the two-part demonstrative discussed earlier. This means that the structure is as in (38).

(38)
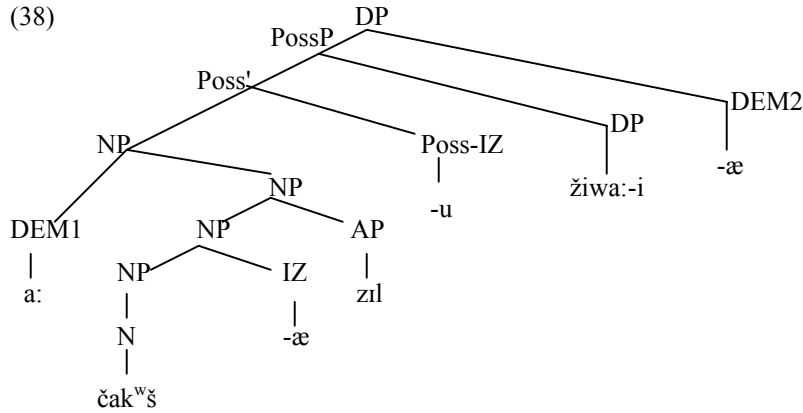
As discussed, DEM1 encodes location (distal or proximal), in which case DEM2 presumably encodes the definite-deictic feature of the demonstrative. As such we might expect it to trigger agreement on the Izafe, presumably *-æ* in the manner of the definite article. The fact that Poss-Izafe *-u* is not affected by the presence of DEM2 then supports the hypothesis that Poss-Izafe is categorially different from AP-Izafe, not being subject to agreement.

The positional absolute finality of DEM2 is reinforced by some surprising facts. We observed in (37) in the example *a: æsp-u kæs-ewi-æ* "that horse of a

person" that final -*æ* appears at least at the end of the highest DP which includes both the possessor and possessee. DEM2 appears after the oblique case marker which is assigned to direct objects in non-ergative constructions.

(39) a.   a: tfæng-æ sya:w-i -æ   geræ   "take that black gun!"
          that gun   -IZ_{def} black -obl-DEM2 take

    b.   a: æsp -i -æ   mawreš-u   "I will sell that horse"
          that horse-obl-DEM2 sell   -1s

    c.   að a: bɨz-a: -i -æ   mæwin-o   "he sees those goats"
          he those goat-PL-obl-DEM2 see   -3s

Quite surprisingly, DEM2 is positioned after the subject-referring clitic pronouns attached to the end of the first argument in the VP in ergative constructions. In (40a), the 1st sg. clitic =*m*, signaling the subject, appears on the direct object. In (b), the 3rd sg. clitic =*š*, encoding the subject Ahmad.

(40) a.   æsp=ɨm di   "I saw a horse"
          horse=1s saw

    b.   aħmał æsp-ækæ=š wræt   "Ahmad sold the horse"
          ahmad horse-def.art=3s sold.3s

As a clitic reflecting agreement properties of the subject and verb, we would not expect the apparently strictly DP-internal marker DEM2 to appear outside of the subject clitic, yet as (41) shows, it does.

(41) a.   i   bɨzæ=m-æ kʊšt   "I killed this goat"
          this goat =1s -def killed.3s

    b.   a: tutæ-u   aħmað-i =m-æ di   "I saw that dog of Ahmad"
          that dog   -IZ_{poss} A   -obl.=1s-dem saw.3s

3. Other topics: 'other', deverbal nouns, and relatives

The modifier *tær* "other" is systematically preceded by Izafe -*i*, thus we might expect it to be like any adjective.

(42) a.   tfæng-i tær   "other gun"
    b.   tfæng-ew-i tær   "another gun"
    c.   tfæng-ew-i zɪl-i tær   "another big gun"

However, *tær* follows the definite article (which then takes the Izafe suffix).

(43) a.   aw mar-ækæ-i tær   "the other snake"
　　 b.   aw æsp-æ zıl-ækæ-i tær   "the other big horse"
　　 c.   *aw æsp-æ zıl-ækæ tær

In N-of-N structures, the Izafe suffix is *-u* as expected, down to the controlling definite article.

(44) a.   aw tfæng-æ zıl-ækæ-**u** tær-**u** aħmað-i   "the other gun of A"
　　 b.   *aw tfæng-æ zıl-ækæ-{∅/**i**} tær-**u** aħmað-i
　　 c.   *aw tfæng-æ zıl-ækæ-u tær-∅ aħmað-i

The role of the initial particle *aw* in this construction is not entirely clear to us. MacKenzie (1966) suggests that it means "that, of two". It shows up in a few examples without *tær*, as in *aw ħaftæ* "last week", *aw marakæ* "other snake", *aw maraka:n* "other snakes", *aw yukæ* "the other", *aw tfængækæ* "other gun". The demonstratives *a:* and *i:*, with the phrase-final vowel *-æ*, appear to have complementary distribution with *aw*, as expected under MacKenzie's analysis.

(45) a.   a: kæsæ -i   tær-æ   "that other person"
　　　　　　that person -IZ other-DEM2
　　 b.   a: kæs -a:n-i tær-æ   "those other persons"
　　　　　　that person-pl -IZ other-DEM2

According to the analysis (16), the definite article does not project a DP, so the pattern of agreement is as expected, under our local agreement account. It shows that the AP-Izafe whose default form is *-i* is not restricted to occurring inside of the definite article, but also shows that whether it does or not, its form is determined by local agreement.

　　Deverbal nouns allow an object which comes before the noun, with no case or other marking. The example (46a) shows a direct object, which precedes the nominalised verb, and (46b) shows the subject of an intransitive verb. We bracket the preverbal object and verb for clarity.

(46) a.   [har fra=dæ-i]   "throwing of mud"
　　　　　　 mud throw   -IZ
　　 b.   rama-u   ħæsæn-i   "Hasan's running"
　　　　　　run   -IZ$_{poss}$ Hasan   -obl

The examples in (47) illustrate nominalization of transitive verbs with null subjects (47a) and overt subjects and objects (47b-c).

(47) a.   [aw   wardæ-i]   "drinking of water"
        water drink   -IZ

    b.   [aw   wardæ-u]   ħæsæn-i   "Hasan's drinking of water"
        water drink   -IZ$_{poss}$ Hasan   -obl

    c.   [gaw wʊrætæ-u]   ħæsæn-i   "Hasan's selling of a cow"
        cow   sell   -IZ$_{poss}$ Hasan   -obl

Notice that the possessive Izafe appears on the nominalised clause before the subject, that is, the nominalization has the same "possessee + possessor" structure of the analogous English "Hasan's selling of a cow".

    The suffix -*i* in (46b) and (47b,c) is clearly the oblique case suffix. We are less certain about the suffix -*i* in (46a) and (47a). The fact that it is overridden by Poss-IZ -*u* in (47b,c) suggests that it is the Izafe -*i*. This is also consistent with the notion that the Izafe marks the modified constituent when a noun or NP merges with a modifier, even though, in the standard cases the modifier follows the head N/NP.

    While subjects of nominalized clauses must come after the verb (thus have N of N structure), objects *may* come after the verb as well. Accordingly, (48a,b) are ambiguous, where Zhiwa and Ahmad can be construed either as subject or object, but (48c) unambiguously identifies Ahmad as the object of seeing.

(48) a.   kʊštæ-u   žiwæ-i   "killing of Zhiwa"
        kill   -IZ$_{poss}$ Zhiwa -obl.

    b.   diæ-u   aħmað-i   "seeing of Ahmad"
        see -IZ$_{poss}$ Ahmad -obl.

    c.   aħmał diæ-i   "seeing Ahmad"
        Ahmad   see -obl

As shown by (49), only one argument of the noun can be postnominal, constructed with the Izafe -*u*.

(49) *wʊrætæ-u gaw-i ħæsæn-i   ("Hasan's selling of a cow")
    *wʊrætæ-u gaw-u ħæsæn-i

This supports our claim that this Izafe is different from other Izafe-suffixes, being categorially a determiner and case-assigner, in addition to being an Izafe suffix.

There is no Izafe -*i* on object nouns inside of nominalizations, even when they contain an adjective.

(50) [rɨsq syaw kʊštæ-u]   aħmað-i   "Ahmed's killing of a black rat"
     rat   black kill   -IZposs Ahmad -obl
   *[rɨsq-i syaw(-i) kʊštæ-u]   aħmað-i
     rat -IZ black (-IZ) kill   -IZposs Ahmad -obl

In addition, the object in a nominalization cannot be marked as plural or as indefinite; nor can the noun have a pre-head modifier such as a numeral, either

(51) *[rɨsq-ewæ kʊštæ-u] aħmað-i   ("Ahmed's killing of a rat")
   *[rɨsq-e kʊštæ-u] aħmað-i   ("Ahmed's killing of rats")
   *[duæ rɨsq kʊštæ-u] aħmað-i   ("Ahmed's killing of two rats")

All of this could indicate that the complex deverbal noun construction is a compound word, not a phrase. The generalization would then be that a deverbal noun can only take one argument constructed with -*u*, therefore only one argument can be assigned the oblique case. A second argument can, however, be incorporated, forming a compound with the deverbal noun, thereby avoiding the need for case (cf. Baker 1988: 117ff.). The presence of an adjective is problematic for the compounding hypothesis, though, as the non-head of a noun-noun compound is typically a bare noun, or even (in some languages) just a root (Josefsson 1999).[6] The claim would be that the noun, adjective and deverbal noun combination [rɨsq syaw kʊštæ] is a complex noun.

(52)   [$_{NP}$ [$_N$ rɨsq syaw kʊštæ]]-u aħmað-i

However, a definite-form Izafe shows up in the complex deverbal noun construction just in case the deverbal noun is itself definite, marked by the suffix -*ækæ*-. Note that A-N ordering, as in (53c,d), is also possible in preverbal objects.

(53) a. [rɨsq-æ   syaw kʊšt-ækæ -u]   aħmað-i "Ahmed's killing of a black rat"
       rat   -IZ$_{def}$ black kill -def.art.-IZ$_{poss}$ Ahmad - obl
   b. [rɨsq-æ zɨl-æ syaw kʊšt-ækæ-u aħmað-i "A's killing of a big black rat"
       rat   -IZ big-IZ black kill -def.art-IZ$_{poss}$Ahmad-obl

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[6] The possibility of a proper name as preposed object, as in (48c), is also unexpected under the compound analysis.

    c. [syaw-æ rɨsq kʊšt-ækæ-u]   aħmað-i   "Ahmed's killing of a black rat"
        black -IZ$_{def}$ rat   kill   -def.art.-IZ$_{poss}$ Ahmad – obl
    d. [zɪl-æ rɨsq kʊšt-ækæ-u] aħmað-i   "Ahmed's killing of a big rat"
    e. *[zɪl rɨsq kʊšt-ækæ-u] aħmað-i

This is unexpected if the construction is a compound noun rather than a phrase. We conclude, tentatively, that the preposed argument is a NP large enough to contain adjectives, but not large enough to contain a numeral, number, or definiteness.

    Relative clauses are outside of the "core NP", standing after the definite article or anything else that seems to be inside the NP, including the phrase-final DEM2 suffix -æ. There is in fact no evidence that they are a constituent with the rest of the NP, and the relative clause can be separated from the rest of the NP, appearing after the main clause verb as in the last example below.

(54) tut-æ   sya:w-ækæ [kæ gæfa-i mægæfo]   "the black dog which is barking"
     dog-IZ$_{def}$ black -def.art. comp bark -obl bark.present
    a: aesp-æ [kæ aħmał æsæ=š]   "horse which A. sold"
     that horse-def REL A.   sold- 3s
    a: aesp=ɨm -æ di   [kæ aħmał æsæ=š]   "I saw that horse which A. sold"
     that horse =1s -def saw.3s REL A.   sold =3s

As we noted above, in ergative constructions, a subject-referring oblique clitic e.g. *ɨm* appears at the end of the first VP constituent, here the object. The NP-internal definite suffix comes after the clitic; the relative clause comes after the verb and is discontinous with the object NP.

4.   Summary

In this paper we have described the structure of the DP in Hawrami. We have paid special attention to the Izafe, the characteristically Iranian inflection marking modified categories in the noun phrase. This is because (a) the Izafe in Hawrami is subject to agreement/concord with number, definiteness, and 'possessorhood', and (b) on the assumption – quite uncontroversial as far as we are aware – that agreement is determined under local c-command, the form of the Izafe gives quite firm evidence of the structural relations among many of the lexical and functional categories making up the DP in Hawrami, including the head noun, adjectives, possessors, quantifiers, numerals, demonstratives, definiteness, and number. Particularly in the case of constituents which occur on different sides of the head

noun, the structural relation between them can be very difficult to establish. However, in Hawrami the form of the Izafe reveals unambiguously which category is structurally closest to the Izafe.

Some findings are quite surprising. In particular, the fact that the definite article *–ækæ* is within the scope of the plural number suffix is surprising given what is known about the relation between number and definiteness in other languages. The Izafe suffix *–u* which occurs in construction with a nominal modifier (typically a possessor) is a different category from the Izafe which occurs in construction with adjectives. Although both mark a modified constituent, *-u* has properties of a determiner, assigning oblique Case to the modifying nominal and triggering agreement on an Izafe which it locally c-commands. The next step should be to determine which of these syntactic properties of the DP are unique to Hawrami, and which are shared with related Iranian languages, where these properties may, in some cases, be harder to detect.

The precise grammatical function of the Izafe is obviously an important question, which, however, we have chosen not to discuss in this paper. A number of different hypotheses have been put forth recently (based on facts from Persian, except Holmberg & Odden (2004) which is based on Hawrami). The Izafe is either a Case marker (Samiian 1994, Larson & Yamakido 2005); a linking element inserted at PF (Ghomeshi 1997); a linker required when a predicate is inverted with its subject (den Dikken & Singhapreecha 2004); a morpheme required to mark the head in an otherwise too symmetrical phrase (Holmberg & Odden 2004). We do not, in this paper, take a stand on which of these formal theories of the Izafe is closest to the mark as the purpose of the paper is to present what we know about the noun phrase in Hawrami in a relatively theory-neutral fashion.

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