Nominalizations of ditransitives in Icelandic

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Introduction

- In this talk, I will discuss some ways in which Icelandic nominalizations can tell us about the internal structure of ditransitive vPs.[1]
- The basic idea is that nominalizations allow us to tell which arguments are direct arguments of the verb, and which are arguments of some other verbal head.
- The results will tell us about the presence/absence of Appl heads, the features of Appl heads, and the presence/absence of silent prepositions.

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Complex Event Nominals

- Deverbal event nominals regularly have three readings (cf. Grimshaw 1990):

    (1) a. **Complex Event Nominal (CEN)**:
            The detective's **examination** of the evidence took a long time.
         b. **Simple Event Nominal (SEN)**: The **examination** took a look time.
         c. **Referential Nominal (RN)**: The **examination** was on the table.

- Various diagnostics can help bring out the CEN reading, resulting in an obligatory internal argument.

    (2) a. * the destruction in a day
         b.   the destruction of the city in a day

Complex Event Nominals

- In Icelandic nominalizations, the obligatory argument can be expressed by a genitive DP or by an *á*-PP (Jóhannsdóttir 1995).

  (3) a. * lýs-ing-in   á einum klukkutíma
           describe-NMLZ-the in one   hour
           INTENDED: 'the description (of something) in one hour'

       b. lýs-ing-in   **á landslaginu** á einum klukkutíma
           describe-NMLZ-the on landscape.the in one   hour
           'the description of the landscape in one hour'

  (4) a. * eyðilegg-ing á einum degi
           destroy-NMLZ in one   day
           INTENDED: 'the destruction (of something) in one day'

       b. eyðilegg-ing **borgarinnar** á einum degi
           destroy-NMLZ city.the.GEN in one   day
           'the destruction of the city in one day'

Complex Head Analysis

- In Wood (2020), I have argued that CENs can be—and in Icelandic, are—derived without a verb phrase, by building a complex head directly.
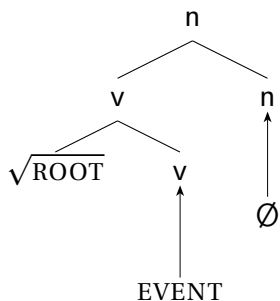
  → **CEN Reading**

  n is semantically $\emptyset$, the derived noun has the same meaning as the verb.
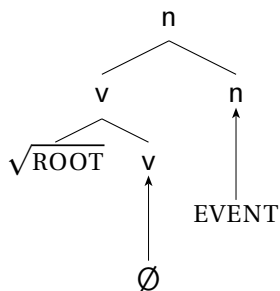
  → **RN/SEN Readings**

  v is semantically $\emptyset$, n gets a contentful interpretation as a concrete object or an event.
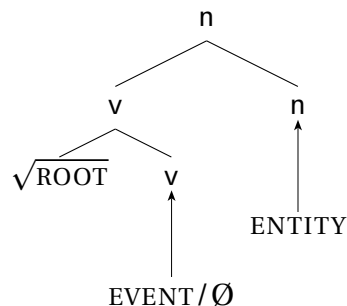
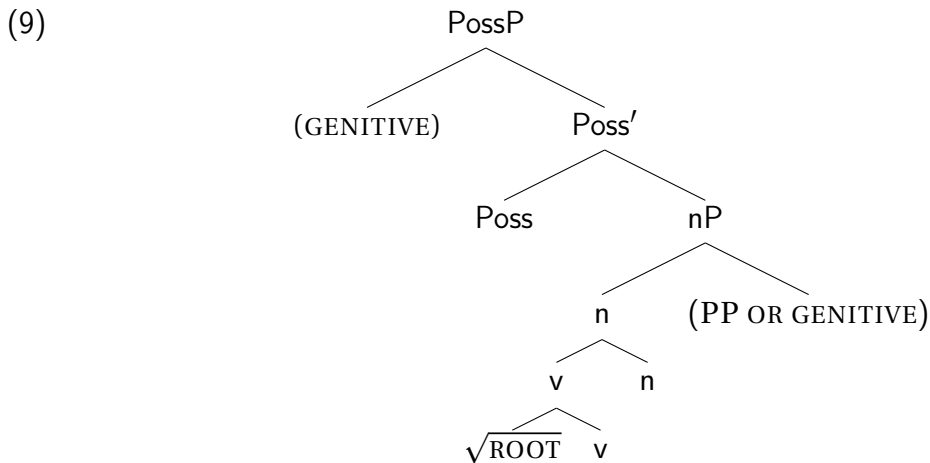 (5)   CEN Reading   (6)   SEN Reading   (7)   RN Reading

Simple Event Nominals

- SEN readings do not necessarily correspond to an existing verbal meaning.

  (8) a. They { tested / # examined } the students.
       b. their { *test / # examination } of the students   CEN
       c. The { test / examination } lasted all day.   SEN

- CENs correspond to verbal meanings because CENs mean the same thing as the verbs they are derived from.
- When they combine with their complement, the semantics is thus the same as if the verb had combined with that complement.
- The syntax is nominal, however, so the complement is either genitive or a PP.

(9)

```
                        PossP
                       /     \
              (GENITIVE)      Poss'
                             /    \
                          Poss     nP
                                  /   \
                                 n    (PP OR GENITIVE)
                                / \
                               v   n
                              / \
                         √ROOT   v
```

- If the complement is an *á*-PP, then P gets an expletive/pleonastic interpretation.

Nominalizations

- Wood (2020), adapting ideas from Gísli Harðarson (2017), proposes that there is only one licensing position for DPs inside of a DP, in SpecφP.

(10)
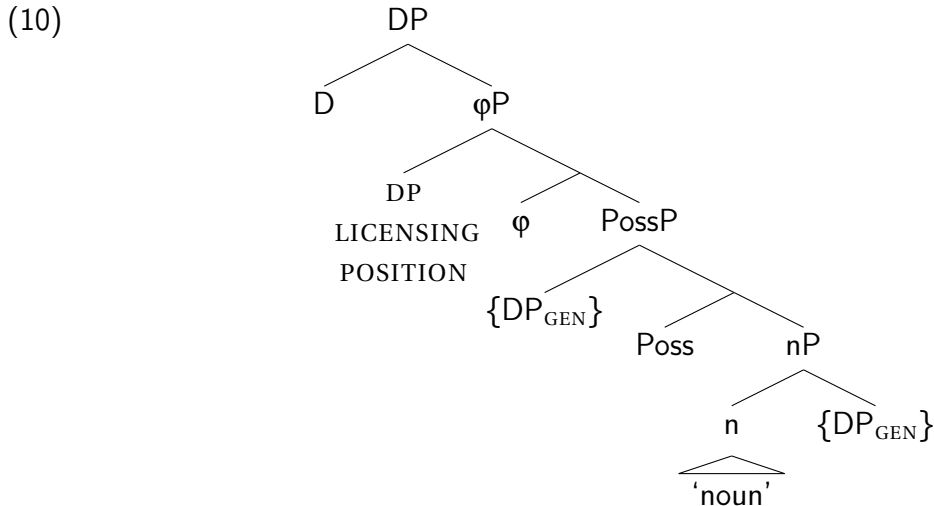
- Genitive DPs can be introduced either as complements of n or in SpecPossP, but not both, since only one can be licensed.

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Appl Theory

- According to the applicative theory of ditransitives (Pylkkänen 2002, 2008; Cuervo 2003, et seq.), ditransitive verbs do not, contrary to appearances, select two internal argument DPs.

- Instead, such verbs select one argument, and the other internal argument is introduced by a special Appl(icative) head.

(11)

```
                        vP
                   /         \
                  v           ApplP
                / \          /      \
          √ROOT   v     INDIRECT
                        ARGUMENT    /    \
                                 Appl    DIRECT
                                        ARGUMENT
```
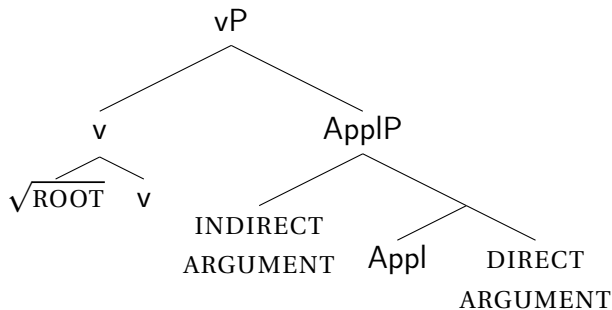
Appl Theory

- *Afhenda* 'deliver' can be ditransitive in Icelandic with a NOM-DAT-ACC case frame.

(12) Pósturinn   afhenti   frúnni   pakkann.
      postman.the.NOM delivered lady.the.DAT package.the.ACC
      'The postman delivered the lady the package.'

(adapted from Jóhannsdóttir 1995:65).

(13)
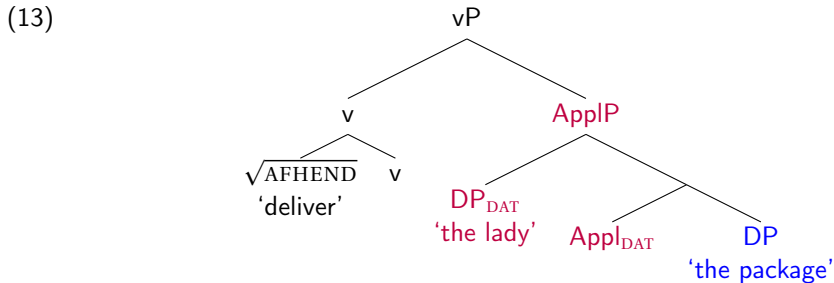
- It is typically assumed that the Appl head assigns dative to its specifier (Cuervo 2003; McFadden 2004; Wood 2015; Sigurðsson 2017).

Appl Theory

- Another way that a verb can appear to select two internal argument DPs is if one of the DPs is actually introduced by a (possibly silent) preposition.

(14)
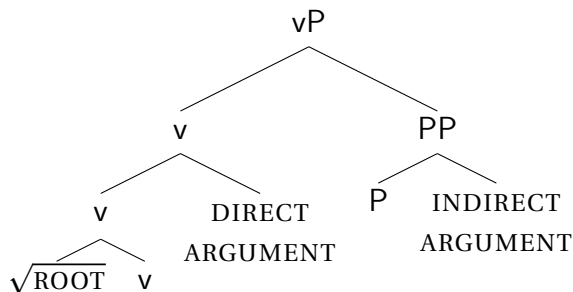
```
                                    vP
                          ┌─────────┴─────────┐
                          v                   PP
                    ┌─────┴─────┐         ┌────┴────┐
                    v        DIRECT       P    INDIRECT
                ┌───┴───┐   ARGUMENT          ARGUMENT
              √ROOT     v
```

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Nominalizations of Ditransitives

- According to the above view, nominalizations inherit the semantics of verbs, but not the syntax of verb phrases.
- Ditransitives offer an interesting test case here, under the view that verbs themselves actually only take one argument.
- Indirect arguments are in fact arguments of *heads* within a verb *phrase*, not the verbs or roots themselves.
- If it is true that nominalizations do not inherit verb phrase syntax, we expect only one argument of a ditransitive to be inherited.

Nominalizations of Ditransitives

- This seems to be borne out. With *afhenda* 'deliver', only the ACC can be the sole argument and can correspond to the genitive in a nominalization.
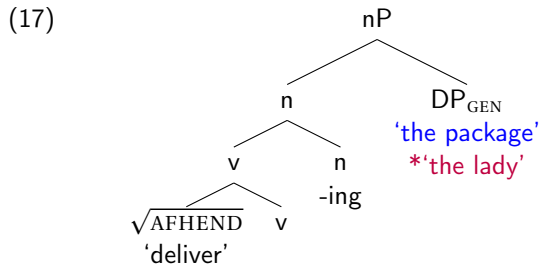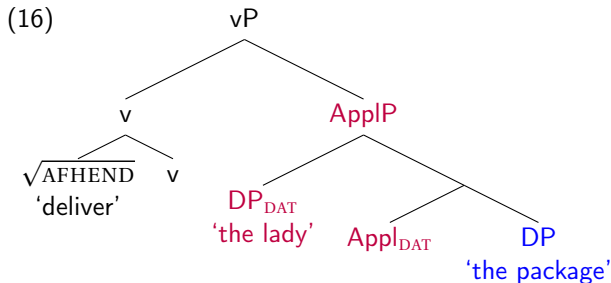
(15)   Pósturinn   afhenti   frúnni   pakkann.
        postman.the.NOM delivered lady.the.DAT package.the.ACC
        'The postman delivered the lady the package.'

    a.   * Pósturinn   afhenti   frúnni.   ➡   * afhend-ing   frúarinnar
            postman.the.NOM delivered lady.the.DAT   deliver-NMLZ lady.the.GEN
            INTENDED: 'The postman delivered to the lady.'

    b.   Pósturinn   afhenti   pakkann.   ➡   afhend-ing   pakkans
            postman.the.NOM delivered package.the.ACC   deliver-NMLZ package.the.GEN
            'The postman delivered the package.'   'the delivery of the package'

    (examples adapted from Jóhannsdóttir 1995:65)

Nominalizations of Ditransitives

- The dative DP *frúnni* 'the lady' is an indirect argument, introduced in SpecApplP.
  - → It **cannot** correspond to the genitive of the nominalization.
- The accusative DP *pakkann* 'the package' is a direct argument of the verb, not introduced by any Appl head or silent P.
  - → It **can** correspond to the genitive of the nominalization.

(16)

```
              vP
          ____|____
         v         ApplP
       __|__      ___|___
   √AFHEND  v   DP_DAT     ___|___
  'deliver'     'the lady'  Appl_DAT   DP
                                      'the package'
```

(17)

```
              nP
          ____|____
         n         DP_GEN
       __|__       'the package'
      v     n      *'the lady'
    __|__  -ing
 √AFHEND v
 'deliver'
```

Nominalizations of Ditransitives

- The verb *kenna* 'teach' may also appear to take two internal arguments.

  (18) María   kenndi börnunum   tungumálið.
       Mary.NOM taught children.the.DAT language.the.ACC
       'Mary taught the children the language.'

- By hypothesis, one would assume that the verb phrase in this case has the same basic structure as with *afhenda* 'deliver', with the dative being introduced in the specifier of an Appl head.

- However, for this verb, either argument can correspond as the genitive of a derived nominal.

  a. kenn-sla barnanna
      teach-NMLZ children.the.GEN
      'the teaching of the children'

  b. kenn-sla tungumálsins
      teach-NMLZ language.the.GEN
      'the teaching of the language'

Nominalizations of Ditransitives

- Given the reasoning above, this might seem to suggest that the dative argument of *kenna* 'teach' can be a direct argument.

- This conclusion is seemingly supported by the fact that either the dative or the accusative can appear as the lone argument—neither is obligatory.

a. María   kenndi börnunum.
   Mary.NOM taught children.the.DAT
   'Mary taught the children.'

   (i)   kenn-sla   barnanna
          teach-NMLZ children.the.GEN
          'the teaching of the children'

b. María   kenndi tungumálið.
   Mary.NOM taught language.the.ACC
   'Mary taught the language.'

   (i) kenn-sla   tungumálsins
        teach-NMLZ language.the.GEN
        'the teaching of the language' t

Nominalizations of Ditransitives

- Presumably, then, we would assume that 'the children' can either an applied argument or a direct argument.

(19)

(20)
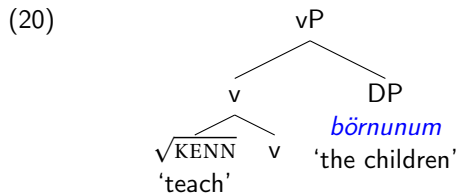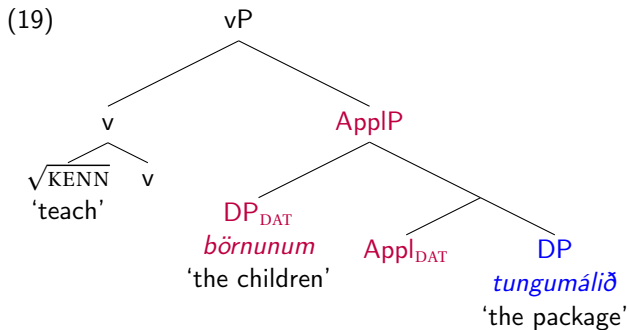
Icelandic: Only one internal argument DP in nominalizations

- However, there are several indications that this is not the case.
  1. Even as a sole complement, 'the children' is dative, suggesting that Appl is still present.[2]
  2. While genitive is possible, *á*-PPs are not.

    (21) a. kenn-slan á tungumálinu
               teach-NMLZ on language.the.GEN
               'the teaching of the language'

        b. * kenn-slan á börnunum
               teach-NMLZ on children.the
               'the teaching of the children'

  3. The genitive only passes CEN tests when it corresponds to the accusative, not the dative.
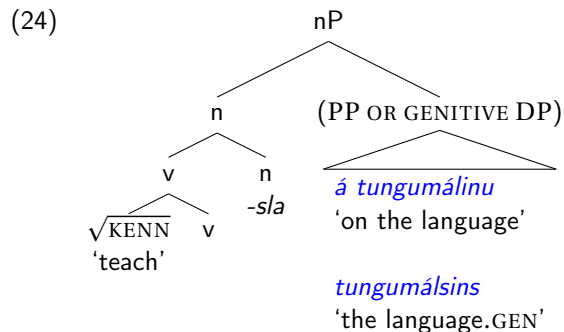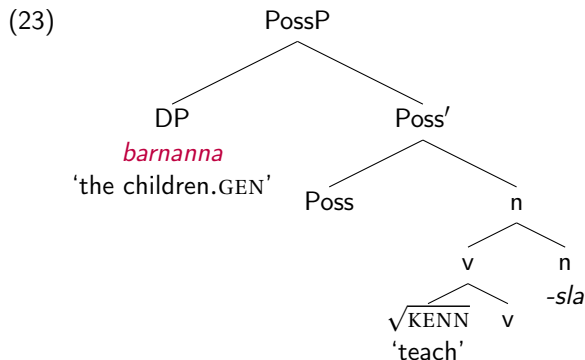
    (22) a. kenn-sla heils námskeiðs á aðeins þremur vikum
               teach-NMLZ whole course.GEN in only three weeks
               'the teaching of a whole course in only three weeks'

        b. * kenn-sla tveggja barna á þrem vikum
               teach-NMLZ two   children.GEN in three weeks
               'the teaching of two children in three weeks'

---

[2]Icelandic allows dative direct objects, but it would be strange to assume for one verb the same case would be assigned to an argument with the same semantic role in two different ways.

Nominalizations of Ditransitives

- This suggests that the nominal head of *kennsla barnanna* 'the teaching of the children' is not really a CEN, but an SEN.
- The genitive is a possessor, and like possessors in general, can bear any number of relations to the head noun—in this case, a relation that resembles the one we find on applied objects in the verb phrase.

(23)

PossP
- DP
  - *barnanna*
  - 'the children.GEN'
- Poss′
  - Poss
  - n
    - v
      - √KENN
      - v
      - 'teach'
    - n
      - *-sla*

(24)

nP
- n
  - v
    - √KENN
    - v
    - 'teach'
  - n
    - *-sla*
- (PP OR GENITIVE DP)
  - *á tungumálinu*
  - 'on the language'
  - *tungumálsins*
  - 'the language.GEN'

Nominalizations of Ditransitives

- Nominalizations suggest that the dative argument of *kenna* 'teach', even when it is a sole argument, is an applied argument.
- The same conclusion can be drawn for *borga* 'pay' (even more straightforwardly, in fact).

(25)   Þeir borga börnunum   peningana.
       they pay   children.the.DAT money.the.ACC
       'They pay the children the money.'

    a.   Þeir borga börnunum.
           they pay   children.the.DAT
           'They pay the children.'

    ➦ * borg-un   barnanna
        pay-NMLZ children.the.GEN
        INTENDED: 'the payment of the children'

    b.   Þeir borga peningana.
           they pay   money.the.ACC
           'They pay the money.'

    ➦ borg-un   peninganna
        pay-NMLZ money.the.GEN
        'the payment of the money'

Nominalization of NAD ditransitives 1: *ræna* 'rob'

- *Ræna* 'rob' can be a NOM-ACC-DAT ditranstive, but allows either the dative or the accusative to be the sole complement.

(26) Bankinn rændi Sigurð   eignum   sínum.
     bank.the robbed Sigurður.ACC possessions.DAT his.DAT
     'The bank robbed Sigurður of all his possessions.'

    a.   Bankinn rændi Sigurð.
         bank.the robbed Sigurður.ACC
         'The bank robbed Sigurður.'

    b.   Bankinn rændi eignum   þínum.
         bank.the robbed possessions.DAT your.DAT
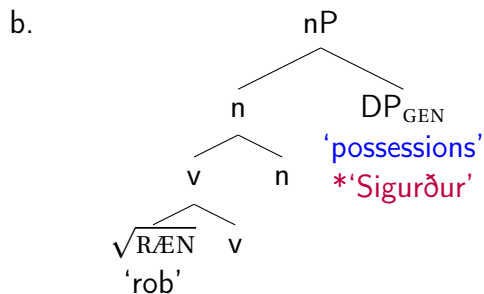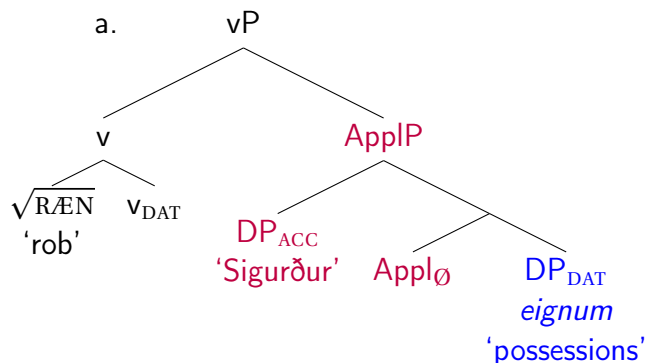   'The bank robbed my possessions.'

- However, the nominalization *rán* 'robbery' does not allow the accusative IO to be expressed as a genitive.

(27) a. # rán   Sigurðar
         robbery Sigurður.GEN
         = 'Sigurður is the robber'
         ≠ 'Sigurður is robbed'

     b.   rán   eignanna
         robbery posessions.GEN
         'the robbery of the possessions'

Nominalization of NAD ditransitives 1: *ræna* 'rob'

- These data suggest that the source DP 'Sigurður' is not a direct argument, even though it is accusative and can appear to be the sole complement in the vP.

a.

```
                vP
            /        \
          v          ApplP
        /   \        /     \
   √RÆN   v_DAT   DP_ACC    \
   'rob'         'Sigurður' Appl_Ø  DP_DAT
                                   eignum
                                   'possessions'
```

b.

```
              nP
           /      \
          n       DP_GEN
        /   \     'possessions'
       v     n    *'Sigurður'
      /  \
   √RÆN   v
   'rob'
```

- This pattern supports the conclusion that
  1. some Appl heads may fail to assign case to their specifiers
  2. some dative objects are direct arguments of the verb, not concealed PPs or applied arguments

Nominalization of NAD ditransitives 2: *samlaga* 'assimilate'

- *Samlaga* 'assimilate' can be a NOM-ACC-DAT ditranstive, but shows a different nominalization pattern.

(28) Útlendingastofnun vill samlaga útlendinga samfélaginu.
immigration.office wants assimilate foreigners.ACC society.the.DAT
'The immigration office wants to assimilate foreigners to society.'

    a. samlög-un útlendinganna
       assimilate-NMLZ foreigners.the.GEN
       'assimilation of the foreigners'

    b. * samlögun samfélagsins
       assimilation society.the.GEN
       INTENDED = 'assimilation to society'

- This suggests that in this case, the accusative is the direct argument, and the dative is an indirect argument.

Nominalization of NAD ditransitives 2: *samlaga* 'assimilate'

- For example, the dative might be introduced in a structure with a concealed PP (vP structure adapted from Bruening 2020).[3]

a.

b.

---
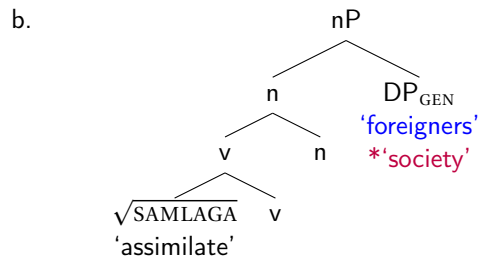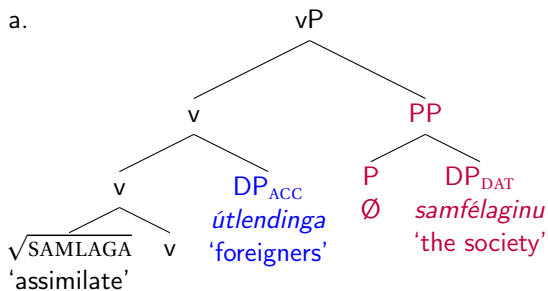
[3] *Samlaga* is actually morphologically complex, and not an atomic root, but I gloss over this here.

Nominalization of NAD ditransitives 2: *samlaga* 'assimilate'

- In fact, the dative argument can be used in the nominalization, but the P head is overt.

(29)   samlög-un   útlendinganna *(**að**) samfélaginu
         assimilate-NMLZ foreigners   *(to) society.the
         'assimilation of foreigners to society'
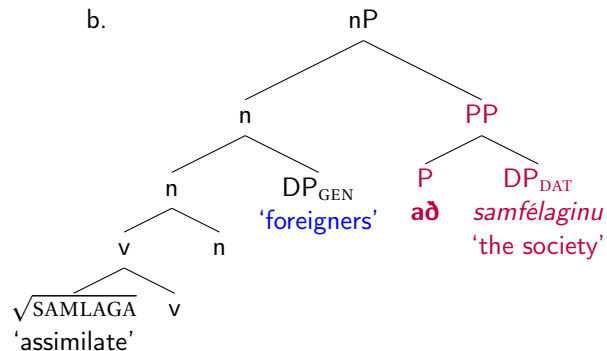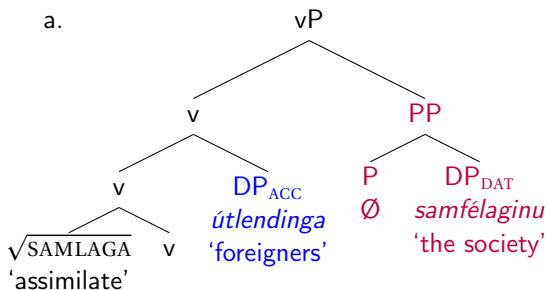
Nominalization of ditransitives

- Nominalization patterns show that in some NAD ditransitives, the dative is the direct argument, while in others, the accusative is the direct argument.
- They lead us to several other conclusions about ditransitive syntax:
  - Appl heads may be present even when only one argument is overt.
  - Some Appl heads do not assign dative to their specifier.
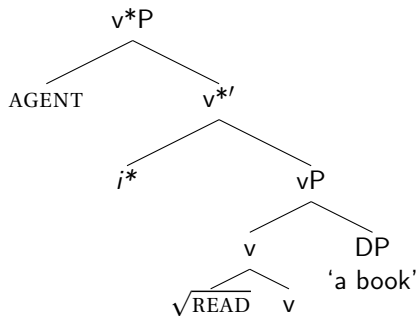 - Some dative objects are direct arguments, while others are concealed PPs.
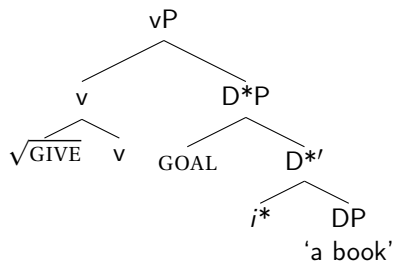
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Low Appl: An *i** Perspective

- Wood & Marantz (2017) outline a theory of argument-introducing heads like Voice/Appl.
- Such heads, which we called *i**-heads, inherit the category of their complement.
  - Voice is *i** attaching to a vP, which then projects a v*P.
  - Low Appl would be *i** attaching to a DP, projecting a D*P (Wood & Zanuttini 2018).

(30)

```
              v*P
             /   \
        AGENT     v*′
                 /   \
               i*     vP
                     /  \
                    v    DP
                  /  \   'a book'
            √READ    v
```

(31)

```
              vP
             /  \
            v    D*P
          /  \  /   \
     √GIVE   v GOAL  D*′
                    /   \
                  i*     DP
                      'a book'
```
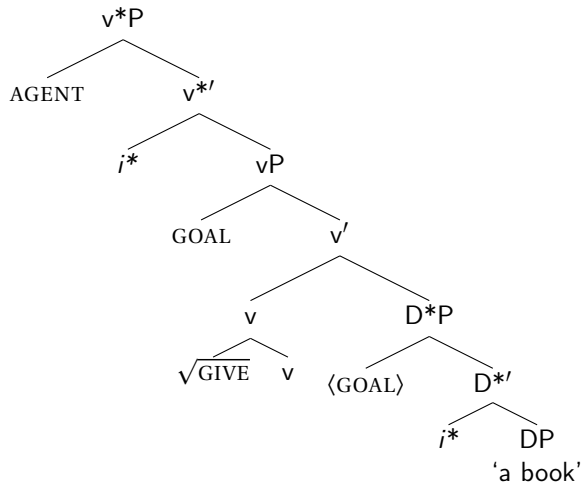
Low Appl: An *i** Perspective

- Thus, a low Appl according to this view is part of the extended projection of the DP.[4]
- I assume that the goal cannot be licensed internal to D*P, and must move to SpecvP, much as ECM subjects of small clauses must (Chomsky 2008).[5]

(32)

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[4]This result bears a certain resemblance to Johnson (1991), who proposed that low ApplP (what he called abstract HAVEP) was categorially a kind of DP.

[5]See also Kayne (e.g. 2010), who proposes that datives originate DP-internally.

Low Appl: An *i** Perspective

- This analysis has several positive consequences, for the present proposal. . .
  - The complement of v is D*P, ultimately an extended projection of the direct object.
  - → so v combines directly with its direct argument;
    the indirect argument is tucked inside.
  - This D*P cannot occur as the complement of n for the same reasons that ECM small clauses cannot (e.g. the goal cannot raise to SpecvP for licensing).

Low Appl: An *i** Perspective

- . . . and beyond:
  - The kind of possession semantics found in double object constructions more closely resembles DP-internal possession than it does verbal possession (e.g. with a verb like "have"; see Wood 2015).
  - When v assigns a special case like dative or genitive, it assigns it to D*P, with concord ensuring that it shows up on all the heads down to the noun.
  - → The "applied argument" *never* gets a special case like this; it is too far away, buried inside a specifier in the complement.
  - → Either the applied argument is dative, assigned (in some fashion) by *i**, or it gets structural accusative/nominative (arguably not assigned by a verb).

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Conclusion

- The key idea behind the complex head analysis of nominalization is that what is nominalized is a verb, not a verb phrase.
- When that is combined with the idea that verbs only take one actual argument, we expect that nominalizations can really only inherit one argument, the direct argument.
- This allows us to use nominalizations to probe the internal structure of ditransitive vPs:

  1. The dative argument of verbs like *kenna* 'teach' and *borga* 'pay' is an applied argument even when there is no overt accusative.
  2. Some Appl heads do not assign dative to their specifier.
  3. Some dative objects are direct arguments, while others are concealed PPs.

- The *i** analysis provides a novel way of understanding why App heads have the properties that they have.

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