# Rethinking head vs. dependent marking grammar

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## 1. Introduction

(1) *Nichols (1986)*
grammatical relations among heads and dependents may be marked either on the head or on the dependent

| LEVEL | HEAD | DEPENDENT |
|---|---|---|
| Phrase | possessum | possessor |
|  | noun (N) | attributive adjective |
|  | adposition (P) | complement of P |
| Clause | verb (V) | arguments, adjuncts |
|  | auxiliary verb (AUX) | main verb |
| Sentence | main clause predicate | relative or subordinate clause (CP) |

Table 1

(2) a. the    man-*'s*   house                              English, dependent marking
        man-POSS
  b. az    ember  haz-*a*                               Hungarian, head marking
      the    man  house-3SG

[in the examples, the head is underlined and the element marking the dependency relation is in italics]

(3) *simplifying somewhat*
a. dependent marking = case
b. head marking = agreement

(4) a. boku-*ga*  tomodati-*ni*  hana-*o*  ageta          Japanese, dependent marking
     I-SUB     friend-IO     flower-DO  gave
     'I gave my friend flowers.'

  b. a-xàc'a    a-pħ°əs    a-š°q°'ə  ∅-*l ə̀-y*-te-yt'    Abkhaz, head marking
     the-man  the-woman  the-book  it-to.her-he-gave-FIN
     'The man gave the woman the book.'

(5) *Nichols (1986)*
• dependent marking is slightly more frequent
• head marking is the unmarked type
• the theoretical apparatus of classical, traditional, structural and formal grammar is heavily based on dependent-marked syntax (and so are ideas about Universal Grammar)

(6) *Proposal*
1. subject-verb agreement is dependent-marking, not head-marking
2. languages differ not in head vs. dependent marking, but in the morphological expression of dependent marking (on DP, V, on both, or on neither)

(7) *Theoretical background*
dependency invariably reduces to sisterhood, and within each pair of sisters <α,β>, β is invariably the dependent of α

## 2. Subject-verb agreement

(8) *Nichols (1986:66)*
a language is likely to make a consistent choice as to marking type throughout its morphosyntax

*But...*

(9) *Nichols (1986:77)*
person, number, and/or gender agreement on heads is common, even in otherwise dependent-marking languages (e.g. German, Russian)

**The subject and object are not dependents of the verb**
(10)    *No priviliged relation between the subject and the verb*
a. the subject may be an internal/external argument of the verb (passive)
b. the subject of one clause may be an argument of the verb of another (raising)
c. the subject position is external to the maximal projection of the verb

(11)    *No priviliged relation between the object and the verb*
d. the object position may be external to the maximal projection of the verb
e. the object of one clause may be an argument of the verb of another (ECM)

**Subject/object are clause level notions**

➜    *what kind of dependency relation involved in subject-verb agreement?*

## 3. Types of dependencies

(12)    a. head-complement
        b. subject-predicate          NB predicate = the phrase that is the sister to the subject, not V

(13)    *common property*: sisterhood

(14)    *sisterhood is a function of Merge*
        Merge α and β yielding γ = {α,β}

(15)    *asymmetry between sisters*
a. labeling (Chomsky 1995):    { δ {α,β} }
b. ordered pair (Zwart 2003):    <α,β>

(16)    Merge transfers elements one at a time from a resource (the pool of elements eligible for inclusion in the derivation) to a work space (the current derivation)

(17)  *step 1*



WORK SPACE                    RESOURCE

*step 2*



WORK SPACE                    RESOURCE
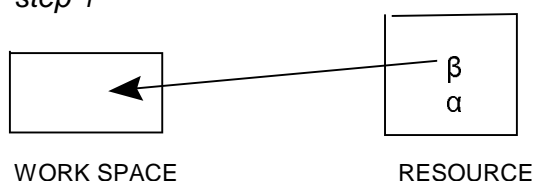
(18)  In step 2, α is new to the derivation, β is the 'elder sister'

(19)  *Dependency relations*
a.  α is in a dependency relation with β iff α is merged to β
b.  when α is merged to β, β is the dependent of α (α is the 'nondependent')

(20)  *The core dependency relations*
a.  head-complement: the complement is the dependent of the head
b.  subject-predicate: the predicate is the dependent of the subject

|  | SUBJECT/HEAD | | PREDICATE/COMPLEMENT | |
|---|---|---|---|---|
| *prosody* | weak | (√subject/√head) | strong | (√predicate/√complement) |
| *order* | 'left' | (√subject/?head) | 'right' | (√predicate/?complement) |
| *merge* | new | (√subject/?head) | old | (√predicate/?complement) |
| *dependency* | nondependent | (?subject/√head) | dependent | (?predicate/√complement) |

Table 2

## 4. Subject-verb agreement again

(21)  A dependency relation between α and β may be marked on γ, a term of β

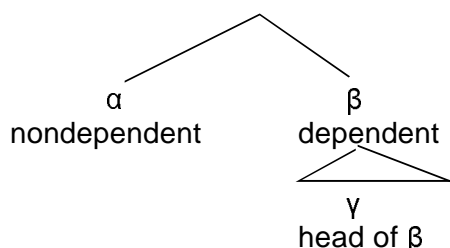(22)  Ich  liebe      meinen       Garten-zwerg                          German
      I    love:1SG   my:ACC.SG    garden-gnome

      liebe    ↔     meinen Gartenzwerg
      liebe    ↤/↛   meinen

(23)  In (21), nothing excludes that γ is the head of β

(24)  Morphological marking on a head may in fact be dependent marking

(25)



(26)  Subject-verb agreement is the marking of the predicate's dependency of the subject on a verb contained within the predicate (i.e. dependent-marking)

(27)  Languages like German, Russian, restored to typological harmony (consistent dependent-marking) [but what about case...?]


## 5.  Dependent-marking through case

(28)  Objective case is the marking of the predicate's dependency of the subject on a (grammatical function expressing) noun phrase contained within the predicate (i.e. dependent-marking)

(29)  opposition NOMINATIVE (unmarked, null case) — OBJECTIVE (marked, dependent case)
as in Jakobson 1935, except that the object is not dependent of the verb, but (in a way) of the subject

(30)  the opposition in (29) is absent in ergative languages, where the ergative subject is marked with inherent case (instrumental, possessive, etc.; cf. Nash 1995)

(31)  ergative case-marking: the object surfaces in the unmarked case (object case cannot be used to mark the dependency of the predicate w.r.t. the subject)

(32)  *ergative case combined with subject-verb agreement*
a.  **ngaju** ka-**rna**          wangka-mi                                    Warlpiri
    I:ABS   AUX:PRES-1SG:SU speak-NONPAST
    'I am speaking.'

b.  **ngajulu-rlu**   ka-**rna**-ngku      nyuntu     nya-nyi
    I-ERG            AUX:PRES-1SG-2OB    you:ABS    see-NONPAST
    'I see you.'


## 6.  Is there any nondependent-marking ?

**possessor—possessum**

(33)  a.  the    man-*'s*    <u>house</u>                            English, dependent marking
             man-POSS
      b.  az     ember <u>haz</u>-*a*                  Hungarian, head marking > dependent marking
          the    man    house-3SG

If the possessor is the 'subject' of the noun phrase, (33b) reduces to (25) = dependent marking
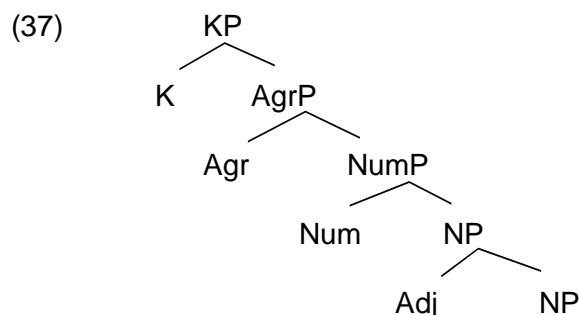
(34)  [the man] [his house]

(35)　*'s looks like a (functional) head*: a soldier's wife = *the* wife of a soldier

**adjective—noun**

(36)　a.　zelen-*yj*　　　<u>dom</u>　　　　　　　　　　Russian, dependent-marking
　　　　　green-NOM.SG.MASC　house
　　　b.　wist　　<u>*t*-citx°</u>　　　　　　Shuswap, head-marking > dependent marking?
　　　　　high　　REL-house

Case and number (and person = possessor agreement) are not inherent features of the noun, suggesting (37), with the adjective (Adj) spelling out the dependency of the noun phrase on the functional elements for case (K), number (Num), and person (Agr) (cf. Déchaine 1999):

(37)
```
            KP
          /    \
         K      AgrP
              /    \
           Agr      NumP
                   /    \
                 Num     NP
                       /    \
                     Adj     NP
```

(38)　*Adjective agreeing with functional elements (definiteness)*
a.　**een**　oud-∅　　　　huis　　　　　　　　　　　　　Dutch
　　　a　　old-INDEF.NTR　house

b.　**het**　oud-**e**　　　　huis
　　　the　　old-DEF.NTR　　house

*(36b) may be dependent-marking, if the adjective is merged to the noun phrase, cf:*
(39)　a.　calay　*a*-<u>monit</u>　　　　　　　　　　　　　　Karbi
　　　　　funny　REL-person　　　　　'funny person'

　　　b.　<u>monit</u>　　calay　　　　　　　'funny person'
　　　　　person　　funny

(40)　*the izafet construction*
a.　küh-*e*　　　boländ　　　　　　Persian, head-marking > dependent marking ?
　　　mountain-IZAF　high　　　　　　'high mountain'
b.　**ki-ti**　　**ch**-a　　　m-ti　　　　　　　　　　　Swahili
　　　7-chair　　AGR₇-IZAF　3-wood　　'wooden chair'
c.　the city of Boston　　　　　　　　　　　　　　　　English

**adposition—complement**

(41)　a.　<u>bez</u>　　　brat-*a*　　　　　　　　Russian, dependent-marking
　　　　　without　　brother-GEN
　　　b.　*ruu*-<u>majk</u>　　　jar　　aachi　　Tz'utujil, head-marking > dependent marking ?
　　　　　3SG-because.of　the　　man

*(41b) is actually a possessive construction, with* majk *a 'relational noun'. Possibly* jar aachi *is the subject, with raising of the relational noun. Variant without raising:*

(42)  a.  ja     a-pʌči                                                                    Burushaski
          I:OBL   1SG-beside
          'with me, beside me'

      b.  Lʌŋa Brumo    mo-pʌči
          L.B.:NOM       3SG-beside
          'with Langa Brumo'

*Spurious head-marking examples (two sisters are united—by cliticization, presumably—rather than that their dependency is expressed by marking either one):*

(42)  a.  i'-ma            b.  tɛ'-ma          c.  pɔ'lɛ-ma                              Wappo
          for me               for him             for the boy

(43)  a.  ('ab) t-wui       b.  ('am) 'em-wui                                           Papago
          toward us              toward you (pl.)
          ['ab and 'am specify motion towards or away from the speaker, *wui* is the adposition]

(44)  a.  Waraka    hyaye   k-omok-no                                                  Hixkaryana
          Waraka    from    1SG-come-IMM.PAST
          'I have come from Waraka.'

      b.  ɨ-hyaye    k-omok-no
          3SG-from    1SG-come-IMM.PAST
          'I have come from him.'

**Conclusion:**  • configurational languages are dependent-marking languages
                 • real issue: are configurational languages and 'non-configurational head-marking languages' comparable as to form and function of verbal inflectional morphology?

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