Heads and their Dependents

- **Properties of heads**
  - Head bears most important semantic information of the phrase.
  - Word class of head determines word class of entire phrase.
    - $[_{NP}$ very bright $[_{N}$ sunflowers$]$ $]$
      $[_{VP}$ $[_{V}$ overflowed$]$ quite quickly$]$
      $[_{AP}$ very $[_{A}$ bright$]]$
      $[_{AdvP}$ quite $[_{Adv}$ quickly$]]$
      $[_{PP}$ $[_{P}$ inside$]$ the house$]$

  - Head has same distribution as the entire phrase.
    - Go inside the house.
      Go inside.
    - Kim likes very bright sunflowers.
      Kim likes sunflowers.
  - Heads normally can't be omitted
    - *Go the house.
    - *Kim likes very bright.

– Heads select dependent phrases of a particular word class.
  - The soldiers released the hostages.
  - *The soldiers released.
  - He went into the house.
    *He went into.
  - bright sunflowers
    *brightly sunflowers
  - Kambera
    – **Lalu** mbana-na na lodu
      too hot-3SG the sun
      'The sun is hot.'
    – ***Lalu** uma
      too house

– Heads often require dependents to agree with grammatical features of head.
  - French
    – un livre vert
      a:MASC book green:MASC
      'a green book.'
    – une pomme verte
      a:FEM apple green:FEM
      'a green apple'
– Heads may require dependent NPs to occur in a particular grammatical case.
  - Japanese
    – Kodomo-**ga** hon-**o** yon-da
      child-NOM book-ACC read-PAST
      'The child read the book.'

- **More about dependents**
  - Adjuncts and complements
    - Adjuncts are always optional; complements are frequently obligatory
    - Complements are selected by the head and therefore bear a close relationship with it; adjuncts add extra information.
    - Adjuncts: Complements:

      very bright [$_N$ sunflowers] [$_V$ admires] **famous linguists**

      [$_V$ overflowed] **quite quickly** [$_V$ wondered] **whether to leave**

      [$_V$ talks] **loudly** [$_A$ fond] **of chips**

      [$_V$ sings] **in the bath** [$_P$ inside] **the house**

      right [$_P$ outside] [$_V$ resorted] **to the instructions**
    - When a head selects the exact preposition within a dependent PP, the PP is a complement of the head.

- In English, a complement typically occurs closer to the head than any adjuncts:
  - We met the new students yesterday.
    *We met yesterday the new students.
  - that picture of John on the table.
    *that picture on the table of John
- Passivization test:
  - Direct object complements of verb can be passivized
    - » All our friends admired Mel.
      Mel was admired by all our friends.
    - » The magician disappeared the next day.
      *the next day was disappeared by the magician.
  - NPs can be passivized out of complement PPs:
    - » Jack laughed at the clown.
      The clown was laughed at by Jack.
    - » Jack worked at the office
      *The office was worked at by Jack.
    - » Jack decided on the boat. (ambiguous)
      The boat was decided on by John. (unambiguous)

- Adverbs are usually adjuncts but can be complements:
  - I wrote the report (carefully)
    Kim practices (carefully)
  - You should treat sensitive people *(carefully).
    You have to tread *(carefully).

– Verbs and their complements

- Intransitive verbs take no complements
  - *fall, elapse, capitulate, expire, disappear*
- Transitive verbs take an NP complement (the direct object)
  - *assassinate, rewrite, imitate, cultivate*
- Often a verb can be transitive or intransitive
  - Lee left Kim. Lee left

- Ditransitive verbs take two complements, either an NP and a PP, or two NPs
  - *send, show,write, buy, give*
  - Kim gave the chips to Lee.
    Kim gave Lee the chips.
  - Direct object (*the chips*), indirect object (*(to) Lee*)
- Some verbs take an NP and a PP complement, but don't have the NP NP alternation:
  - Kim put the potatoes into the pan.
    *Kim put the pan the potatoes.
- Prepositional verbs take a PP complement headed by a specific preposition.
  - This cake consists of fruit and nuts.
    I applied for a new job.
    Bill laughed at the clown
    Sue relied on Mary.

- Some verbs select both an NP and a clausal complement (finite, non-finite, or either)
  - Kim persuaded Bill that he should leave.
    Kim persuaded Bill to leave.
  - *convince, allow, encourage, force, permit*
- Often a verb can appear in more than one subclass
  - Chris couldn't remember that long shopping list.
    - » NP complement
  - Chris remembered that they'd left it on the shelf.
    - » Finite clause complement
  - Chris usually remembers to pick up the list.
    - » Non-finite infinitival clause complement
  - Chris remembered leaving it on the shelf.
    - » Non-finite participial clause complement

– Other heads and their complements

- <u>Prepositions</u> have variety in their complement structure but less than verbs
  - Intransitive:
    She lives nearby (*the bank).
  - Transitive
    She went into *(the house).
  - Either transitive or intransitive:
    He went inside (the house).
  - Clausal complement
    We left before Mary arrived.
  - PP complement
    The spider emerged from under the bed.

- Adjectives have less variation
  - Obligatory complement
    - » John is fond *(of Mary).
      This speech is totally devoid *(of sense).
  - Optional PP complement with a specific preposition:
    - » good at spelling
      free from any doubts
      sorry for your friend
  - Optional clausal complement
    - » Kim felt sorry that she had been late.
    - » *sorry, happy, angry, glad, delighted*

- Nouns never take obligatory complements
  - Optional PP complements with a specific preposition
    - » a manufacturer of tires
    - » Lee's belief in extraterrestrials
  - Optional clausal complements
    - » the fact that Bill was late
    - » their demand for the library to stay open later
- Complementizers (C) can be viewed as heads selecting the clause they introduce to form a Complementizer Phrase (CP).
  - Mel said [$_{CP}$ **that** she was leaving]
  - [$_{CP}$ **For** Kim to go too] would be surprising.
  - I don't know [$_{CP}$ **whether** you should go]
  - I don't know [$_{CP}$ **whether** to go]

– Determiners and nouns
  - Traditionally determiners are considered dependents of the head noun in a noun phrase.
    – They are sometimes called ‘specifiers’, a sort of adjunct occurring in a fixed position in the phrase, and other closed class words that occur with heads of different types are also termed ‘specifiers’:
      » **this** man
      very happy
      very happily
      right inside
  - Recently, linguists have proposed that the determiner is the head of the “noun phrase”, and that this should be considered a Determiner Phrase (DP) which has an NP complement to the head D:
    – [$_{DP}$ this [$_{NP}$ box of dates]]

  - Determiners fulfil a number of criteria for head status.
    – Many determiners can have the same distribution as the entire phrase.
      » I’ll have *this/that/these/those/either/some*.
    – Determiners are frequently obligatory.
      » *I’ll have *box of dates*.
    – The head D requires its NP complement to agree with certain properties of the head:
      » this box of dates
      » these boxes of dates
  - The “DP hypothesis” is a controversial one still, and we will continue viewing the noun as head of the phrase in question.

- **Where does the head occur in a phrase?**
  - Head-initial languages
    - English
      - [$_{VP}$ **likes** chips] [$_{PP}$ **into** the water]
        [$_{AP}$ **fond** of chips] [$_{NP}$ **admiration** for Mary]
    - Welsh
      - [$_{PP}$ **dros** y ffordd]
        over the road
      - Ddaru Ceri [$_{VP}$ **yfed** paned o de]
        did Ceri drink cupful of tea
        'Ceri drank a cup of tea'
    - Tinrin
      - u [$_{VP}$ **tramwâ** mwâ ke maija wake]
        I know that you much work
        'I know that you work hard.'
      - [$_{NP}$ **kò** rugi beebòrrò urá mwîê
        news about drowning POSSESSIVE woman
        'the news about the woman's drowning'

  - Head-final languages
    - Japanese
      - Taroo-ga [$_{VP}$ Hanako-ni hana-o **ageta**]
        Taro-NOM Hanako-DATIVE flower-ACC gave
        'Taro gave Hanako flowers.'
      - [$_{PP}$ tomodati-**to**]
        friend-with
        'with a friend'
      - [$_{NP}$ sono tesuto e no **zisin**]
        that test to POSSESSIVE confidence
        'confidence in that test'
    - Lezgian
      - Adaz [$_{NP}$ mektebda k'el-da-j **mumkinwal**] xa-na-c
        he in.school study-FUT-PARTICIPLE possibility be-PAST-NEG
        'He did not have the possibility to learn in school.'
      - Adaz [$_{VP}$ zun cpi-z klig-zawa-jdi **aku-na**].
        He I selves-DATIVE look-IMPF-PARTICIPLE see-PAST
        'He saw that I was looking at them.'

Head-Marking and Dependent-Marking Languages

- **Definitions and illustrations**
  - Syntactic relationships between heads and dependents
Head	**Dependent**
postposition/preposition	object NP
verb	arguments (subject, object)
(possessed) noun	possessor NP
noun	adjective
  - English
in [$_{NP}$ the shower]	(**P** + NP)
Kim **loves** Lee	(Su + **V** + Obj)
Kim's **house**	(possessor NP + **N**)
red **book**	(modifying A + **N**)

  - Head preposition/postposition and its NP object
    - **Dependent-marking**
      - German: prepositions 'govern' the case of their object
        - » | | |
          |---|---|
          | Für meinen Freund | mit meinem Freund |
          | for my:ACC friend | with my:DATIVE friend |
          | 'for my friend' | 'with my friend' |
      - Chechen
        - » Beera-na t'e
          child-DATIVE on
          'on the child'
    - **Head-marking**
      - Cakchiquel
        ru-ma ri-achin
        3SG-by the-man
        'by the man'
      - Welsh
        - » | | | |
          |---|---|---|
          | arna i | arno fo | arni hi |
          | on:1SG me | on:3M:SG him | on:3F:SG her |
          | 'on me' | 'on him' | 'on her' |

– The clause: a head verb and the arguments of the verb

- **Dependent-marking**
  - Japanese
    - » Taroo-**ga** tegami-**o** kaita
      Tarro-NOM letter-ACC wrote
      'Taroo wrote a letter.'
  - German
    - » Der Hund sah den Vogel
      the:NOM dog saw the:ACC bird
      'The dog saw the bird.'
    - » Den Vogel sah der Hund.
      The:ACC bird saw the:NOM dog
      'The dog saw **the bird**.'

- **Head-marking**
  - Kambera
    - » Hi **ku**-palu-**y**a
      so 1SG:SU-hit-3SG:OBJ
      'So I hit him.'
    - » I Ama$_S$, **na**$_S$-kei-**ya**$_O$ na ri muru$_O$
      the father 3SG:SU-buy-3SG:OBJ the vegetable green
      'Father buys the green vegetables.'
      Lit., 'Father he-buys-it the grreen vegetable'
  - Cakchiquel
    - » Per ma x-**e**-**r**-komsaj-ta
      but NEG CMPL-3PL:OBJ-3SG:SU-kill-IRREALIS
      'but he didn't kill them'

– Head noun and dependent possessor NP
  - **Dependent marking**
    – English
      » Kim**'s** house
    – Finnish
      » tytö-**n** kissa
        girl-GEN cat
        'girl's cat'
  - **Head-marking**
    – Saliba
      » Sine natu-**na**
        woman child-3SG
        'the woman's child'
    – Cakchiquel
      » ri-ya-Ros i ru-k'in ri-Enrik **ki**-te **ki**-tata
        the-FEM-Rosa and 3SG-with the-Enrique 3PL-mother 3PL-father
        'Rosa and Enrique's mother and father'

– Head noun and dependent AP
  - **Dependent-marking**
    – Spanish: adjective agrees with noun in gender
      » el niño pequeño la niña pequeña
        the:MASC boy small:MASC the:FEM girl small:FEM
        'the small boy' 'the small girl'
  - **Head-marking**
    – Persian: noun is marked as having a dependent
      » kûh-e boländ
        mountain high
        'high mountain'

- **Some typological distinctions between languages**
  - **Head-marking languages**
    - Abkhaz, Mayan (Jacaltec, Tzotzil, Cakchiquel), Athabaskan (Navajo), Iroquoian (Mohawk, Cherokee), Algonquian (Cree, Blackfoot), Siouan (Crow, Lakhota), Salish (Squamish)
  - **Dependent-marking languages**
    - Indo-European (German,Greek, Armenian, Slavic [Russian, Polish,Czech, Bulgarian]), Pama-Nyunngan (Dyirbal, Yidiny), Northeast Caucasian (Chechen), Dravidian (Malayalam).
  - **Neither head-marking nor dependent-marking**
    - Chinese

      Wo changchang jian **ta**
      I often see he
      'I often saw him'

      Ta changchang jian **wo**
      he often see I
      'He often saw me'

- English
  - A little dependent-marking
    - » Kim**'s** house Possessor marker 's
    - » **He** met **him** Case-marking in pronouns
    - » **these** books Determiner-noun number agreement
  - A little head-marking
    - » Bill smoke**s** Subject-verb agreement
      I **am**, she **is**, we **are**
- Mixtures are not unusual
  - German: dependent-marking plus subject-verb agreement
    - » Ich **sehe** den Vogel
      I:NOM see:PRES:1SG the:ACC bird
      'I see the bird.'
    - » Wir **sehen** den Vogel
      we:NOM see:PRES:1PL the:ACC bird
      'We see the bird.'