Complex Predicate Compendium

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1 Introduction

(Working) Definition of a Complex Predicate:
A complex (polyclausal) argument structure that corresponds to a mono-clausal functional structure (a single subject; a single primary event predication).

Complex predicates in South Asian (and other) languages are used to form new verbal predications given a few basic building blocks.

- Syntactic Complex Predicates:

    - The formation takes place in the syntax—these are not lexical compounds.
    - A complex predicate consists of a main predicational element (noun, verb or adjective) and a light verb that is usually the syntactic head of the construction.

- Morphological Complex Predicates:

    - A piece of morphology is used to modify the primary event predication.
    - Well-known example: morphological causatives (but not applicatives!).

- Light Verbs:

    - Crosslinguistically do not always form a uniform syntactic category (but there are tests that distinguish light verbs from auxiliaries and main verbs).
    - Are not always associated with a uniform semantics, but they always muck around with the primary event predication.

- Semantics:

    - Complex predicates represent the decomposition of event structure (aktionsart).
    - They not simply functional heads that encode 'viewpoint aspect' (unlike auxiliaries).

2   Sample Constructions in Urdu

2.1   Things That Are Definitely Complex Predicates

Aspectual Complex Predicates (Butt 1995)

(1) a. nadya=ne   xɑt   **lɪkʰ li-ya**
       Nadya.F=Erg letter.M.Nom write take-Perf.M.Sg
       'Nadya wrote a letter (completely).'   (Urdu)

   b. nadya=ne   mɑkan   **bɑna di-ya**
       Nadya.F=Erg house.M.Nom make give-Perf.M.Sg
       'Nadya built a house (completely, for somebody else).'   (Urdu)

   c. ram   **ga ʋʈʰ-a**
       Ram.M.Sg.Nom sing rise-Perf.M.Sg
       'Ram sang out spontaneously (burst into song).'
       (Hindi, Mohanan 1994a:9)

   d. nadya   **hɑs   paɽ-i**
       Nadya.F.Sg.Nom laugh fall-Perf.F.Sg
       'Nadya burst out laughing.'   (Urdu)

Permissives (Butt 1995)

(2) a. anjʋm=ne   saddaf=ko   xɑt   **lɪkʰ-ne   di-ya**
       Anjum.F=Erg Saddaf.F=Dat letter.M.Nom write-Inf.Obl give-Perf.M.Sg
       'Anjum let Saddaf write a letter.'

   b. kɪs=ne   kʋtte=ko   gʰɑr ke ɑndɑr   **a-ne   di-a?**
       who.Obl=Erg dog.M.Obl=Dat house Gen.Obl inside come-Inf.Obl give-Perf.M.Sg
       'Who let the dog come into the house?'   (Glassman 1976:235)

Causatives (Saksena 1980, 1982)

(3) a. mɑkan   bɑn-a
       house.M.Sg.Nom be made-Perf.M.Sg
       'The house was built.'
       'Das Haus entstand.'

   b. anjʋm=ne   mɑkan   **bɑn-a-ya**
       Anjum.F=Erg house.M.Sg.Nom be made-Caus-Perf.M.Sg
       'Anjum built a house.'

   c. anjʋm=ne   (mazdurõ=se)   mɑkan   **bɑn-va-ya**
       Anjum.F=Erg laborer.M.Pl=Inst house.M.Sg.Nom be made-Caus-Perf.M.Sg
       'Anjum had a house built (by the laborers).'

Noun-Verb Complex Predicates (Mohanan 1994a)

(4) nadya=ko   kɑhani   **yad**   **a-yi**   [Urdu]
     Nadya.F.Sg=Dat story.F.Sg.Nom memory come-Perf.F.Sg
     'Nadya remembered the story (the story came to Nadya).'

     nadya=ne   kɑhani   **yad**   **k-i**   [Urdu]
     Nadya.F.Sg=Erg story.F.Sg.Nom memory do-Perf.F.Sg
     'Nadya remembered the story (actively).'

Adjective-Verb Complex Predicates

(5) ram=ne   kɑmra   **saf** **ki-ya**
    Ram.M.Sg=Erg room.M.Sg.Nom clean do-Perf.F.Sg
    'Ram cleaned the room.'   (Hindi, Mohanan 1994a:9)

(Dis)Abilitatives

(6) a. nadya=se   yə ʊrdu=k-i   cɪʈʈʰi
       Nadya.F.Sg=Inst this Urdu=Gen-F.Sg letter.F.Sg.Nom

       pɑṛʰ-i   nɑhĩ **ja-ti**
       read-Impf.F.Sg not   go-Impf.F.Sg
       'Nadya does not have the ability to read this Urdu letter.'
    b. ʊs=se   **cɑl-a**   nɑhĩ **ja-e-g-a**
       Pron=Inst walk-Perf.M.Sg not   go-3-Fut-M.Sg
       'She/he can't possibly walk.' (in the context of a broken leg)
       (Glassman 1976:275)

2.2   Definitely Not Complex Predicates

Control Constructions

(7) ɑnjʊm=ne   saddɑf=ko   [xɑt   **lɪkʰ-ne]=ko**   kɑh-a
    Anjum.F=Erg Saddaf.F=Dat letter.M.Nom write-Inf.Obl=Acc say-Perf.M.Sg
    'Anjum told Saddaf to write the letter.'

(8) a. radʰa=ne   mohɑn=ko   [kɪtab   pɑṛʰ-ne]=**ko**   mɑjbur ki-ya
       Radha.F=Erg Mohan.M=Dat book.FNom read-Inf.Obl=Acc force   do-Perf.M.Sg
       'Radha forced Mohan to read a book.'

    b. radʰa=ne   mohɑn=ko   [kɪtab   pɑṛʰ-ne]=**pɑr**   mɑjbur ki-ya
       Radha.F=Erg Mohan.M=Dat book.F.Nom read-Inf.Obl=on force   do-Perf.M.Sg
       'Radha forced Mohan to read a book.'

    c. radʰa=ne   mohan=ko   [kɪtab   parʰ-ne]=**ke liye** mɑjbur ki-ya
       Radha.F=Erg Mohan.M=Dat book.F.Nom read-Inf.Obl=for force   do-Perf.M.Sg
       'Radha forced Mohan to read a book.'

(9) a. jɑb   ḍakṭɑr sahɪb   bol-ne=ko   tʰe
        when   doctor   sahib.M.Nom speak-Inf.Obl=Acc be.Past.M.Pl
        to   sɑb   log   cʊp   ho   ga-e
        though all   people.Nom   quiet   become   go.Perf.M.Pl
        'When the doctor was about to speak, everybody fell quiet.' (Glassman 1986:233)

    b. mem-sahiba   cai   bɑna-ne=ko   tʰĩ
       Madam.F.Nom tea.F.Nom make-Inf.Obl=Acc be.Past.F.Pl
       'Madam was just about to make tea.'   (Glassman 1986:233)

Modal Control Constructions (Small Clauses)
(Butt and King 2001, 2005, Bashir 1999)

(10) a. nadya=ne   zu   ja-na   hɛ
       Nadya.F.Sg=Erg zoo.M.Sg.Obl go-Inf.M.Sg be.Pres.3.Sg
       'Nadya wants to go to the zoo.'   (Urdu)
    b. nadya=ko   zu   ja-na   hɛ
       Nadya.F.Sg=Dat zoo.M.Sg.Obl go-Inf.M.Sg be.Pres.3.Sg
       'Nadya has to go to the zoo.'   (Urdu)

Passives

(11) cor   (pʊlɪs=se) pɑkṛ-a   gɛ-ya/ja-ta
     thief.M.Sg.Nom police=Inst catch-Perf.M.Sg go-Perf.M.Sg/go-Impf.M.Sg
     'The thief was caught by the police.'
     (adapted from Mohanan (1994a:183))

Auxiliary Constructions

(12) a. bɪlli   bɪstar   [ke   nicʰe] so   rah-i   hɛ
       cat.F.Sg.Nom bed.M.Sg Gen.Obl under sleep stay-Perf.F.Sg be.Pres.3.Sg
       'The cat is sleeping under the bed.'   (Urdu)

    b. nadya   saddɑf=se   bat   kɑr rah-i   hɛ
       Nadya.F.Sg.Nom Saddaf.F.Sg=Inst talk.F.Sg.Nom do stay-Perf.F.Sg be.Pres.3.Sg
       'Nadya is talking to Saddaf.'   (Urdu)

2.3   Dubious Cases

"Aspectual" verbs in the sense of Smith 1991.

These are probably not complex predicates as they show no selectional restrictions ((13b)), nor evidence for a complex argument structure ((13a)).

(13) a. vo   ro-ne   lɑg-i
          Pron.Nom cry-Inf.Obl be.attached-Perf.F.Sg
          'She began to cry.

     b. vo   a   cʊk-a
          Pron.Nom come lift-Perf.M.Sg
          'He has arrived.'

3   How To Tell One From the Other

3.1   Monoclausality

Definition: Complex Predicates are monoclausal (primary predication): the light verb does not contribute its own separate domain of predication, rather it contributes information which interacts with the predicative power of the main verb.

Observation: The establishment of monoclausality is language dependent.

3.2   Romance

Aissen and Perlmutter (1983) show that Clause Union (or Reduction) in Spanish and Italian is evidenced by phenomena such as clitic climbing. Rosen (1989) provides further discussion and tests, such as passivization, etc.

3.3   Korean

Choi (2002, 2005) shows that V-V constructions such as (14) are monoclausal: behavior of NPI, negation and non-separability of the two verbs.

(14) Chelswu-Ka   namwunip-ul **ssel-E   chiw-ess-ta**
      Chelswu-Nom leaves-Acc   sweep-E clean-Past-Decl
      'Chelswu has **swept up** the leaves.'   (Korean)

3.4   Urdu

Butt (1995) shows that V-V such as in (15) and (16) are monoclausal (also see Butt and Ramchand 2003): agreement, anaphora and control phenomena all indicate that there is only a single subject in the clause (no embedded clause, no embedded subject).

(15) nadya=ne   saddɑf=ko   cɪʈʈʰi   **lɪkʰ-ne**   **di**
Nadya.F.Sg=Erg Saddaf.F.Sg=Dat letter.F.Nom write-Inf.Obl give-Perf.F.Sg
'Nadya let Saddaf write a letter.'   (Urdu)

(16) nadya=ne   xɑt   **lɪkʰ li-ya**
Nadya.F=Erg letter.M.Nom write take-Perf.M.Sg
'Nadya wrote a letter (completely).'   (Urdu)

Causatives, Noun-Verb, Adj-Verb and Abilitatives show the same mono-clausal pattern of behaviour.

In the following, I just illustrate the tests for the permissive (as an example).

3.4.1   Agreement

Agreement in Simple Clauses

(17) a. **ɑdnan**   gari   **cɑla-ta**   hɛ
     Adnan.M.Nom car.F.Nom drive-Impf.M.Sg be.Pres.3.Sg
     'Adnan drives a car.'

     b. ɑdnan=ne   **gari**   **cɑla-yi**   hɛ
     Adnan.M=Erg car.F.Nom drive-Perf.F.Sg be.Pres.3.Sg
     'Adnan has driven a car.'

     c. nadya=ne   gari=ko   **cɑla-ya**   hɛ
     Nadya.F=Erg car.F=Acc drive-Perf.M.Sg be.Pres.3.Sg
     'Nadya has driven the car.'

Permissive: Agreement as in Simple Clauses

(18) a. ɑnjʊm=ne   saddɑf=ko   **xɑt**   lɪkʰ-ne   **di-ya**
     Anjum.F=Erg Saddaf.F=Dat letter.M.Nom write-Inf.Obl give-Perf.M.Sg
     'Anjum let Saddaf write a letter.'

     b. ɑnjʊm=ne   saddɑf=ko   **cɪʈʈʰi**   lɪkʰ-ne   **d-i**
     Anjum.F=Erg Saddaf.F=Dat note.F.Nom write-Inf.Obl give-Perf.F.Sg
     'Anjum let Saddaf write a note.'

     c. ??ɑnjʊm=ne   saddɑf=ko   cɪʈʈʰi=ko   lɪkʰ-ne   **di-ya**
     Anjum.F=Erg Saddaf.F=Dat note.F=Acc write-Inf.Obl give-Perf.M.Sg
     'Anjum let Saddaf write the note.'

(Oddness in (18c) because of Case OCP effects, see Mohanan 1994b).

Instructive: evidence for an embedded clause

(19) a. ɑnjʊm=ne   saddaf=ko   [**xɑt**   lɪkʰ-ne]=ko   **kɑh-a**
         Anjum.F=Erg Saddaf.F=Dat letter.M.Nom write-Inf.Obl=Acc say-Perf.M.Sg
         'Anjum told Saddaf to write the letter.'

   b. ɑnjʊm=ne   saddaf=ko   [**cɪʈʈʰi**   lɪkʰ-ne]=ko   **kɑh-a**
         Anjum.F=Erg Saddaf.F=Dat note.F.Nom write-Inf.Obl=Acc say-Perf.M.Sg
         'Anjum told Saddaf to write the note.'

3.4.2 Control

Permissive — Only one possible subject controller

(20) **ɑnjʊm=ne**$_i$ saddaf=ko$_j$ [——$_{i,*j}$ dɑrvaza   kʰol kɑr]   sɑman=ko
     Anjum.F=Erg Saddaf.F=Dat   door.M.Sg.Nom open having luggage.M=Acc

     ɑndɑr rɑkʰ-ne   di-ya
     inside put-Inf.Obl give-Perf.M.Sg
     'Anjum, having opened the door, let Saddaf put the luggage inside.'

Instructive — Two possible subject controllers

(21) **ɑnjʊm=ne**$_i$ **saddaf=ko**$_j$ [——$_{i,j}$ dɑrvaza   kʰol kɑr]   sɑman=ko
     Anjum.F=Erg Saddaf.F=Dat   door.M.Nom open having luggage.M=Acc

     ɑndɑr rɑkʰ-ne=ko   kɑh-a
     inside put-Inf.Obl=Acc say-Perf.M.Sg
     'Anjum told Saddaf to put the luggage inside, after having opened the door.'
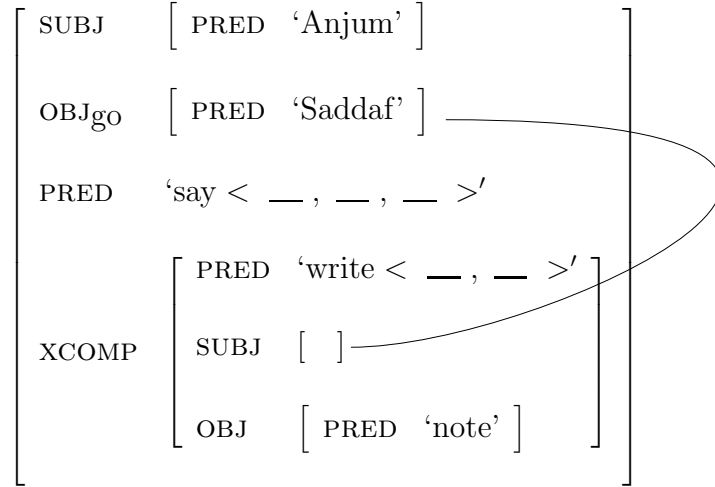
Control of PRO subjects is generally restricted to matrix subjects in South Asian languages (see Mohanan 1994a for some discussion).

So, only one subject in the permissive ((22)), but two in the control construction ((23)).

(22) **Permissive**

$$
\begin{bmatrix}
\text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'Anjum'} \end{bmatrix} \\[2ex]
\text{OBJ}_{\text{gO}} & \begin{bmatrix} \text{PRED} & \text{'Saddaf'} \end{bmatrix} \\[2ex]
\text{PRED} & \text{'let-write} < \text{\_\_} , \text{\_\_} , \text{\_\_} > \text{'} \\[2ex]
\text{OBJ} & \begin{bmatrix} \text{PRED} & \text{'note'} \end{bmatrix}
\end{bmatrix}
$$

(23) **Instructive**

$$
\begin{bmatrix}
\text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{`Anjum'} \end{bmatrix} \\[2ex]
\text{OBJ}_{\text{go}} & \begin{bmatrix} \text{PRED} & \text{`Saddaf'} \end{bmatrix} \\[2ex]
\text{PRED} & \text{`say} < \underline{}, \underline{}, \underline{} >' \\[2ex]
\text{XCOMP} & \begin{bmatrix}
\text{PRED} & \text{`write} < \underline{}, \underline{} >' \\[1ex]
\text{SUBJ} & [\ ] \\[1ex]
\text{OBJ} & \begin{bmatrix} \text{PRED} & \text{`note'} \end{bmatrix}
\end{bmatrix}
\end{bmatrix}
$$

3.4.3 Anaphora

Reflexives in Urdu/Hindi are subject-oriented, whereas pronouns obviate subjects (Mohanan 1994 and references therein, among others).

(24) a. **anjʊm=ne**$_i$ ɑdnan=ko$_j$ **ɑpn-i**$_{i,*j}$ gaṛi=mẽ dekʰ-a
      Anjum.F=Erg Adnan.M=Acc self-F   car.F=in see-Perf.M.Sg
      'Anjum saw Adnan in her (Anjum's) car.'

   b. ɑnjʊm=ne$_i$ **ɑdnan=ko**$_j$ **ʊs=ki**$_{*i,j,k}$ gaṛi=mẽ dekʰ-a
      Anjum.F=Erg Adnan.M=Acc Pron=Gen.F car.F=in see-Perf.M.Sg
      'Anjum saw Adnan in his (Adnan's or somebody else's) car.'

Permissive—Only one possible antecedent (subject)

(25) **anjʊm=ne**$_i$ ɑdnan=ko$_j$ ɑ**pn-i**$_{i,*j}$ gaṛi   cɑla-ne   d-i
     Anjum.F=Erg Adnan.M=Dat self-F.Sg car.F.Sg.Nom drive-Inf.Obl give-Perf.F.Sg
     'Anjum let Adnan drive self's (Anjum's) car.'

Instructive—PRO Subject can antecede reflexive

(26) ɑnjʊm=ne$_i$ **ɑdnan=ko**$_j$ [ɑ**pn-i**$_{?*i,j}$ gaṛi   cɑla-ne]=ko   kɑh-a
     Anjum.F=Erg Adnan.M=Dat self-F.Sg   car.F.Sg.Nom drive-Inf.Obl=Acc say-Perf.M.Sg
     'Anjum told Adnan to drive self's (Adnan's) car.'

Permissive—Subject Obviation

(27) anjʊm=ne$_i$ **adnan=ko$_j$**   **ʊs=ki$_{*i,j,k}$**   gaṛi
Anjum.F=Erg Adnan.M=Dat pron=Gen.F car.F=Nom

cɑla-ne   d-i
drive-Inf.Obl give-Perf.F.Sg
'Anjum let Adnan drive his car.'

(28) **anjʊm=ne$_i$**   **adnan=ko$_j$**   [**ʊs=ki$_{i,j,k}$**   gaṛi
Anjum.F=Erg Adnan.M=Dat Pron=Gen.F car.F.Nom

cɑla-ne]=ko   kɑh-a
drive-Inf.Obl=Acc say-Perf.M.Sg
'Anjum told Adnan to drive his/her car.'

Instructive–No Subject Obviation

(29) a. *ʊs=ne/vo   xɑt   lɪkʰ paṛ-a
Pron.Obl=Erg/Pron.Nom letter.M.Nom write fall-Perf.M.Sg
'He fell to writing a letter.'   (Urdu)

b. ʊs=ne/*vo   xɑt   lɪkʰ li-ya
Pron.Obl=Erg/Pron.Nom letter.M.Nom write take-Perf.M.Sg
'He wrote a letter (completely).'   (Urdu)

3.4.4   Phrase Structure

All of these phenomena are stable under scrambling and are insensible to the grouping of V-V vs. Obj-V.

- There are two possible constituencies for both the instructive and permissive (evidence from scrambling, negation, coordination, Butt 1995).

  1. KP KP KP [V V]
  2. KP KP [KP V] V

- The different phrase structure configurations do not affect the complex predicate status of the permissive (agreement, control, anaphora all behave the same.

- Similar findings have recently been reported for German (Schmid and Bader 2004).

Question: What to make of this?

3.5 Light Verbs vs. Auxiliaries

The above section showed how to differentiate light verbs (in monoclausal complex predicates) from main verbs.

This section shows that light verbs behave differently from auxiliaries as well.

- The light verb always carries tense/aspect inflection.

- The light verb is found in every part of the verbal paradigm, just like a main verb, but very much unlike a modal or an auxiliary.

- The light verb fits into a distinct slot in the verbal complex

  (30) Main Verb (Light Verb) (Passive) (Progressive) (Be Auxiliary)

- The light verb determines the case marking of the subject.

  (31) ʊs=**ne/*vo**   xɑt   lɪkʰ-a
        Pron.Obl=Erg/Pron.Nom letter.M.Nom write-Perf.M.Sg
        'He wrote a letter.'   (Urdu)

  (32) a. **nadya=ne**   xɑt   lɪkʰ di-ya
            Nadya.F.Sg=Erg letter.M.Sg.Nom write give-Perf.M.Sg
            'Nadya wrote the letter (completely, for somebody else).'
            (Urdu)

        b. **nadya**   xɑt   lɪkʰ paṛ-i
            Nadya.F.Sg.Nom letter.M.Sg.Nom write fall-Perf.F.Sg
            'Nadya fell to writing the/a letter.'   (Urdu)

- Light verbs phrase together with the main verb but still form their own prosodic words. This affects phenomena like reduplication: light verbs can be reduplicated ((33)), auxiliaries cannot ((34)).

  (33) a. vo   so   **ʤa-ti**   tʰ-i
            Pron.3.Sg.Nom sleep go-Impf.F.Sg be.Past-Sg.F
            'She to used to go to sleep.'   (Urdu)

        b. vo   so   **ʤa-ti**   **vati**   tʰ-i
            Pron.3.Sg.Nom sleep go-Impf.F.Sg go.Redup be.Past-Sg.F
            'She used to keep going to sleep (at inopportune moments).'

  (34) a. vo   so   **rɑh-i**   tʰ-i
            Pron.3.Sg.Nom sleep Prog-F.Sg be.Past-Sg.F
            'She was sleeping.'   (Urdu)

        b. *vo   so   **rɑh-i** **vahi**   tʰ-i
            Pron.3.Sg.Nom sleep Prog-F.Sg Prog.Redup be.Past-Sg.F
            'She was sleeping.'   (Urdu)

4 The Semantics of Light Verbs

Light verbs seem to have several possible functions.

4.1 Adverbial Event Modification

The Aspectual light verbs are often associated with perfectivity (Hook 1991, 1993, Singh 1994) or inception/completion (Butt 1995) and various other more vague semantic dimensions such as suddenness, forcefulness, volitionality, benefaction, etc. (Hook 1974).

(35) nadya=ne   xɑt=ko   lɪkʰ   mar-a
     Nadya.F.Sg=Erg letter.M.Sg=Acc write hit-Perf.M.Sg
     'Nadya dashed off the letter (forcefully).' (Urdu)

(36) nadya=ne   xɑt   lɪkʰ   di-ya
     Nadya.F.Sg=Erg letter.M.Sg.Nom write give-Perf.M.Sg
     'Nadya wrote the letter (completely, for somebody else).'   (Urdu)

(37) nadya=ne   xɑt   lɪkʰ   li-ya
     Nadya.F.Sg=Erg letter.M.Sg.Nom write take-Perf.M.Sg
     'Nadya wrote the letter (completely, for herself).'   (Urdu)

Butt and Geuder (2001) analyze constructions with 'give' and show that most of the meaning dimensions are very context-dependent and therefore defeasible: light verbs act much like adverbs in terms of event modification.

Butt and Tantos (2004) propose an underspecified analysis of light verbs in terms of Petri Nets.

- Based on historical evidence, one can show that the light version and the full version of a verb are very closely tied together:

  - When the verb is lost, both light and main verb versions are lost simultaneously.
  - There is no evidence for progressive grammaticalization, as with auxiliaries (Butt and Lahiri 2002).

- **Idea:** the verb semantics is a collection of something like Dowtyian entailments—bundle of properties typical for the kind of event that is described (movement, volition, sentience, change-of-state, etc.)

  - This bundle of properties is only structured into the familiar lexically decomposed structures (e.g., an LCS) in interaction with syntactic properties that require a main verb predication.
  - When there is no call for a main verb predication, i.e., when the syntactic environment does not allow for one, the bundle of semantic properties is realized in terms of an event modificatory semantics.

4.2   Structuring Events

Light verbs can also influence the argument structure of the main predication.

This can be thought of as *structuring events* (Ramchand 2001, 2003, Butt and Ramchand 2003).

Basic Simple Predication:

(38)
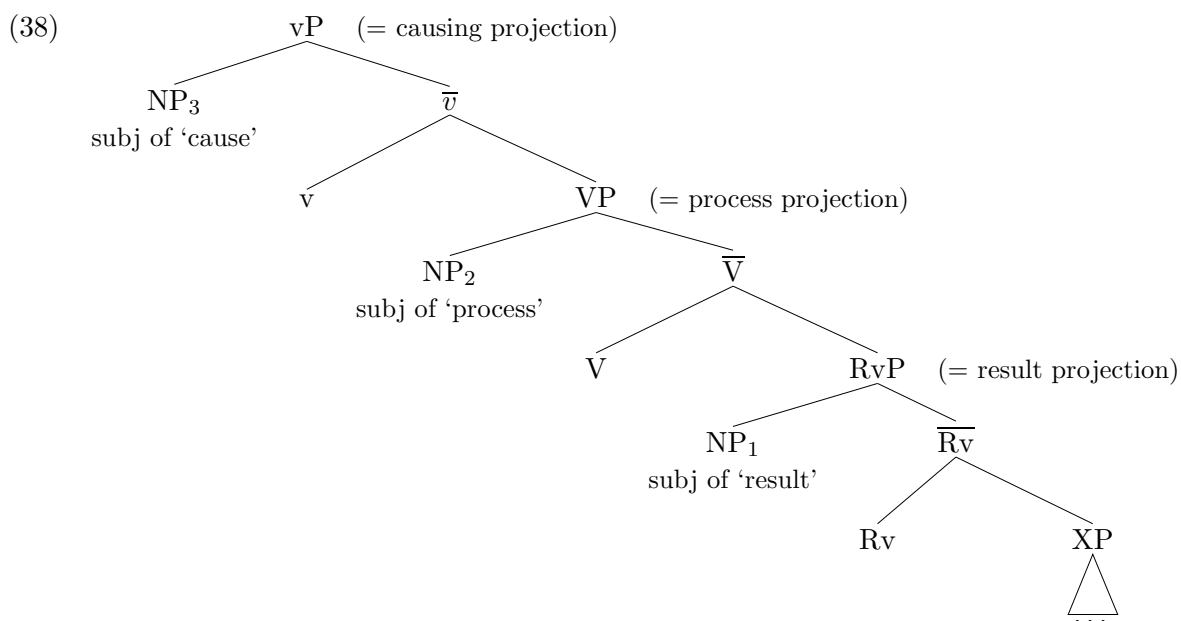
The syntactic representation works together with a (Post)Davidsonian event semantics (Davidson 1967, Higginbotham 1985, Parsons 1990).

The following notions are assumed to be *primitives* of the metalanguage:
$e = e_i \rightarrow e_j$: e consists of two subevents, e_i, e_j such that e_i leads to or causes e_j (see Hale and Keyser 1993)

$e = < e_i, e_j >$: e consists of two subevents, e_i, e_j such that e_i and e_j form an accomplishment event structure where e_i is the process portion and e_j is a state interpreted as the result state of the process (see Parsons 1990 and Higginbotham 1999, cf. also Levin and Rappaport-Hovav's 1998 notion of template augmentation).

(39) 'build the house' ($e = e_1 \rightarrow < e_2, e_3 >$)
   where e_1 = the causing, intentional impulse
   e_2 = the process of house-building
   e_3 = the state of the house having been built.

4.2.1 The Urdu Permissive

(40) nadya=ne   sɑddɑf=ko   xɑt   **lɪkʰ-ne**   **di-ya**
        Nadya.F.Sg=Erg Saddaf.F.Sg=Dat letter.M.Nom write-Inf.Obl give-Perf.M.Sg
        'Nadya let Saddaf write a letter.'

Syntax and Semantics for (40):

(41) V1=V=write(e; y, z) V2=v=Cause$_{allow}$(e'; x, e'')
        $\exists$e: e = e$_2$ $\rightarrow$ e$_1$ [write(e$_1$; 'Saddaf', 'letter') &
        Cause$_{allow}$(e$_2$; 'Anjum', e$_1$)]
        'Anjum is the causer/allower of a subevent of Saddaf writing a letter.'

(42)

```
                           IP
                         /    \
                       vP       I
                      /  \
                   YP     v'
                 Anjum   /  \
                       VP    v (= V2)
                      /  \     give
                   DP     V̄
                 Saddaf  /  \
                      DP    V₀ (= V1)
                    letter    write
```
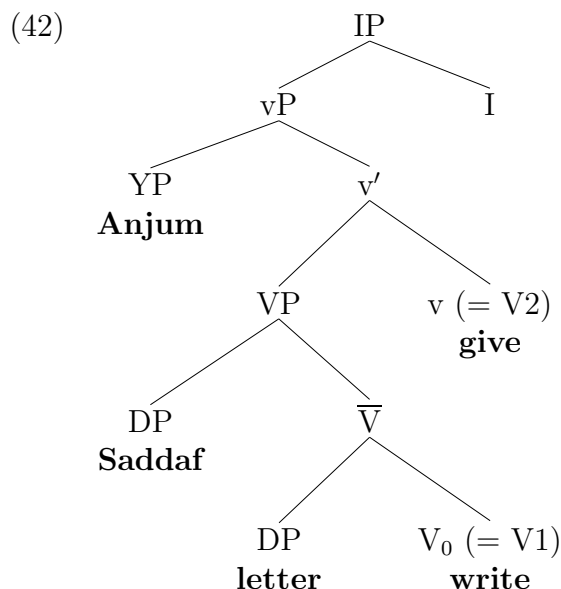
Features of the Analysis:

- The permissive 'give' is a natural v: Its semantics are consonant with the causal semantics posited for v in general.

- The process phrase (VP) is a complement of v: There is only one clausal nucleus.

- When v is overtly instantiated, particular semantics result: the permissive is a particular instantiation of a causative semantics.

- It introduces event structural complexity (subevents).

- There is no result portion to this structure: permissives have no telic readings.

4.2.2 Aspectual Light Verbs

(43) nadya=ne   xɑt   **lɪk^h** **li-ya**
Nadya.F=Erg letter.M.Nom write take-Perf.M.Sg
'Nadya wrote a letter (completely).'

Syntax and Semantics for (43):

(44) V1 = Rv = written (e; y) V2 = v = CAUSE ($e'(=e_1 \rightarrow e_2)$; x,y)
$\exists e$: $e = e_1 \rightarrow <e_2\ e_3>$[Cause($e_1 \rightarrow e_2$; 'Nadya', 'letter')
& written(e_3; 'letter')]
'Nadya instigates a process affecting a letter which has the result that
the letter comes to be written.'

(45)

```
                            vP
                   _____/    _____
                  DP                     v̄
            _____/_____      _____/  _____
          causer 'Nadya'                              v(=V2)ⱼ
                                                       'take'
                            VP
                   _____/  _____
                  DPᵢ                  V̄
            _____/_____      _____/  _____
   object of process  RvP                        V(=V2)ⱼ
        'letter'    __/  \__                       'take'
                   DPᵢ      R̄v
            _____/_____    |
     object of result     Rv(=V1)
          'letter'       result state
                          'written'
```
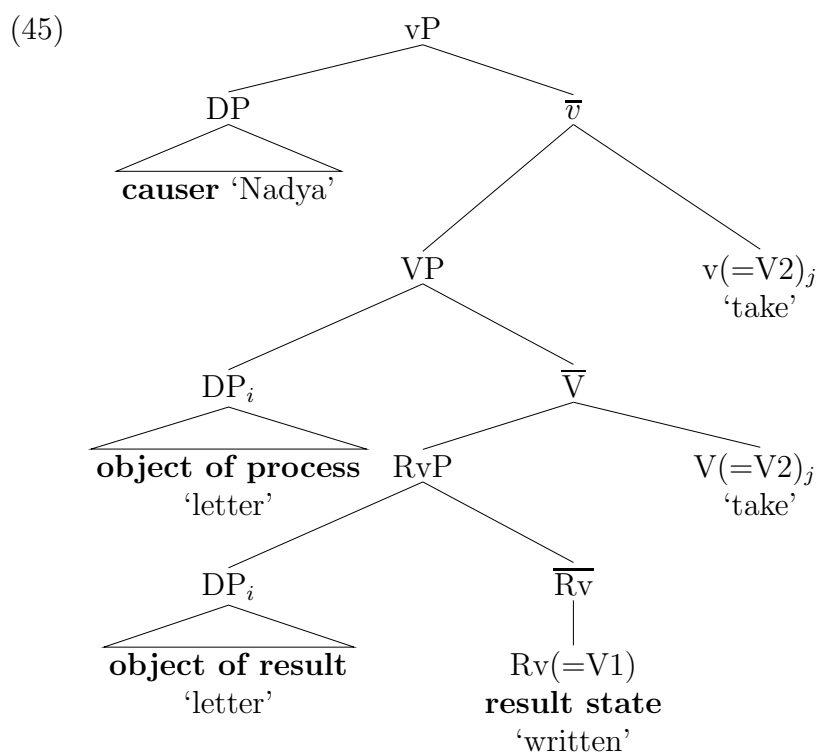
Features of the Analysis

- The light verb in this takes up both the cause and the process.

- The main verb actually provides the Result (there is independent morphological evidence for this—the form of the verb is an old participial form which roughly meant 'having Xed').

- The light verb must primarily be licensed in V because of:

  - The greater cohesion between light verb and main verb here as compared to the permissive.

– Negation facts and the fact that the permissive can stack on top
of the light verb, but not the other way around.

(46) nadya=ne   saddaf=ko   xɑt   **lɪkʰ le-ne**   **di-ya**
Nadya.F.Sg=Erg Saddaf.F.Sg=Dat letter.M.Nom write take-Inf.Obl give-Perf.M.Sg
'Nadya let Saddaf write a letter (completely).'

(47) */???nadya=ne   saddaf=ko   xɑt   **lɪkʰne**   **de li-ya**
Nadya.F.Sg=Erg Saddaf.F.Sg=Dat letter.M.Nom write-Inf.Obl give take-Perf.M.Sg
'Nadya completely let Saddaf write a letter.'

Summary: We seem to have a good grip on causative/permissive type of
semantics and the aspectual light verbs. But, there is more that light verbs
and case in Urdu can do

- Modal semantics: Abilitatives

- Temporal descriptions: infinitives with certain case markers (but that
is another topic).

5   The Ability Construction

5.1   The Problem — Unexpected Readings

Imperfects in Urdu generally have a habitual reading: both in simple (48)
and complex predicates (49).

(48) nadya   cai   **pi-ti**   hɛ/tʰi
Nadya.F.Sg.Nom tea.F.Sg.Nom drink-Impf.F.Sg be.Sg.Pres/be.F.Sg.Past
'Nadya drinks/drank tea.'

(49) nadya   kiriã=ko   **mar de-ti**   hɛ
Nadya.F.Sg.Nom ant.F.Pl Acc hit   give-Impf.M.Sg be.Pres.Sg
'Nadya kills ants.'

- But — in some complex predicates a funny "dispositional" reading emerges

(50) nadya   gari   **cɑla le-ti**   (hɛ)
Nadya.F.Sg.Nom car.F.Sg.Nom drive take-Impf.F.Sg be.Pres.Sg
'Nadya does/will drive a car.'

- Even worse — what is this form of the passive up to?

(51) nadya=se   gari   **cɑla-yi**   **ja-ti**   (hɛ)
Nadya.F.Sg=Inst car.F.Sg.Nom drive-Perf.F.Sg go-Impf.F.Sg be.Pres.Sg
'Nadya has the ability to drive a car.'
'A car gets driven by Nadya.'

(52) nadya=se   ye urdu=k-i cɪʈʈʰi
Nadya.F.Sg=Inst this Urdu=Gen-F.Sg letter.F.Sg.Nom
pɑɽʰ-i   **nɑhĩ ja-ti**
read-Impf.F.Sg not go-Impf.F.Sg
(hɛ)
be.Pres.Sg
'Nadya does not have the ability to read this Urdu letter.'
'This Urdu letter does not get read by Nadya.'

Questions

- How can the readings in the aspectual imperfective complex predicates and the "passive" be characterized/analyzed?

- How do they differ from habituals (imperfects)?

- How do they differ from simple modals?

5.2   Complex Predicates

- **Syntactic Properties**: A *light verb* combines with the stem form of a main verb to form a single syntactic predicate (no embedded subject).

- **Lexical Semantics**: The light verb and the main verb each contribute lexically encoded semantic information to the semantics of the construction. (see Butt 1995 for details).

- In *"Aspectual" Complex Predicates*, the *light verb* serves as an event modifier. In the past tense (perfective morphology), as in (53), the light verbs generally signal completion or inception of an event.

(53) a. nadya=ne   gari   **cɑla l-i**   (hɛ)
  Nadya.F.Sg=Erg car.F.Sg.Nom drive take-Perf.F.Sg be.Pres.Sg
  'Nadya has driven a/the car.'

 b. nadya=ne   kʰana   **kʰa li-ya**
  Nadya.F.Sg=Erg food.M.Sg.Nom eat take-Perf.M.Sg
  'Nadya has eaten (completely).'

- **Question:** How does the "dispositional" reading in (54) relate to these?

(54) nadya   gari   cɑla le-ti   (hɛ)
Nadya.F.Sg.Nom car.F.Sg.Nom drive take-Impf.F.Sg be.Pres.Sg
'Nadya does/will drive a car.'

Distributional Note: The dispositional reading only occurs productively with *le* 'take' ((54)) and in individual, almost lexicalized forms such as (55).

(55) nadya   bɑccõ=ko   ʈofi   de
    Nadya.F.Sg.Nom child.Pl.Obl=Dat toffee.F.Sg.Nom give
    de-ti
    give-Impf.F.Sg
    hɛ
    be.Pres.Sg
    'Nadya will/does give toffee to children.'

So, it is actually just one light verb out of a larger possible set (Table (56)).

(56)

Common Light Verbs	
Based on (di)transitives	Based on Intransitives
(Ergative Subject)	(Nominative Subject)
le 'take'	a 'come'
de 'give'	ja 'go'
ɖal 'put'	paɾ 'fall'
mar 'hit'	mar 'die'
nikal 'pry out'	nikɑl 'emerge'
	cʊk 'finish'
	baiʈʰ 'sit'
	ʊʈʰ 'rise

The light verb *le* is in fact the semantically most unmarked in its group, so it would make sense that it most easily lends itself to a shift in semantic interpretation.

5.3   Ability Modal (*can*)

The standard modal corresponding to the English *can* is *sak*. It requires that the embedded verb be in its stem/base form.

(57) nadya   cai   pi   sɑk-ti   hɛ
    Nadya.F.Sg.Nom tea.F.Sg.Nom drink can-Impf.F.Sg be.Sg.Pres
    'Nadya can drink tea.'

Question: How does this modal differ from the "ability passive" and the "dispositional" complex predicate?

5.4   Dispositional Complex Predicates

(58) nadya   gari   cɑla le-ti   (hɛ)
    Nadya.F.Sg.Nom car.F.Sg.Nom drive take-Impf.F.Sg be.Pres.Sg
    'Nadya does/will drive a car.'

5.4.1 Semantics

• The "dispositional" reading of the *le* complex predicate appears to be very difficult to explain to speakers of English/German.

• The closest analogs in the literature come from Lawler (1973a,b).

5.4.2 Lawler

Existential(=dispositional) Generic:
Example in (60) as a possible paraphrase/reading of the generic in (59). (Lawler 1973b)

(59) My pet toad eats flies.   (generic)

(60) My pet toad will eat flies.   (existential)
(The toad will eat flies, perhaps in addition to other things)

This reading has not been discussed very much in the literature, which has focused instead on the universal paraphrasing of (59) in (61a,b).

(61) a. My pet toad only eats flies.   (universal)

b. My pet toad always eats flies.

• Universal readings do not reflect the interpretation of the *le* construction.
• The bulk of the literature on generics is thus not helpful.

Potential Generic (another related construction?), examples in (62)–(63). Can be paraphrased with a modal of possibility (*can, will*) (Lawler 1973a97)

(62) Frank speaks German.

(63) Bill's car goes 150 miles an hour.

5.4.3 Semantic Properties of the Urdu Construction

Common context:
People are surprised that one might speak Urdu and inquire about it.

(64) a. ɑccʰa, urdu   bʰi bol-ti   hɛ?
yes   Urdu.F.Sg.Nom also speak-Impf.F.Sg be.Pres.Sg
'So, she also speaks Urdu?'

b. hã, hã, bol   le-ti   hɛ.   kyũ na
yes yes speak take-Impf.F.Sg be.Pres.Sg why not
bol-e?
speak-Subj
'Yes, yes, she (does) speak Urdu. Why shouldn't she?'

Interpretation of the Reading: The construction asserts that:

1. The subject/topic of predication has the ability to perform a certain action.

2. Over and above that the subject/topic of predication actually chooses (and has been observed to) to excercise that ability (is disposed to perform a certain action).

3. The construction is particularly appropriate in a situation the subject/topic of predication is not expected to have a particular ability — that the subject/topic does in fact actually excercise that ability serves to explicitly point out and override the negative expectation.

Differences to the Modal:

• The expectation/presupposition that the subject/topic of predication actually excercises a particular ability distinguishes the *le* dispositional construction from the modal.

(65) nadya   gari   cɑla sɑk-ti   hɛ,
     Nadya.F.Sg.Nom car.F.Sg.Nom drive can-Impf.F.Sg be.Pres.Sg
     mɑgar cɑla-ti   hi
     but   drive-Impf.F.Sg Emph
     nɑhĩ
     not
     'Nadya can drive a car, but doesn't.'

(66) ???nadya   gari   cɑla le-ti   hɛ,
     Nadya.F.Sg.Nom car.F.Sg.Nom drive take-Impf.F.Sg be.Pres.Sg
     mɑgar cɑla-ti   hi
     but   drive-Impf.F.Sg Emph
     nɑhĩ
     not
     'Nadya does/will drive a car, but doesn't.'

Presuppositions:

• The *le* construction appears to presuppose that certain conditions are met; the modal does not.

(67) ɑgar rasta   paka   ho, nadya
     if   road.M.Sg.Nom baked.M.Sg be Nadya.F.Sg.Nom
     saikal   cɑla
     cycle.F.Sg.Nom drive

le-gi
take-Fut.F.Sg
'If the road is good, Nadya will ride a bicycle.'

(68) ??ɑgɑr rasta paka ho, nadya
if road.M.Sg.Nom baked.M.Sg be Nadya.F.Sg.Nom
saikal cɑla
cycle.F.Sg.Nom drive
sɑk-egi
can-Fut.F.Sg
'If the road is good, Nadya can ride a bicycle.'

5.4.4 Tense/Aspect Morphology

The dispositional reading occurs with future and imperfect morphology, but not with the perfect.

5.4.5 Word Order Constraints

• The dispositional reading is not independent of word order.

(69) a. nadya gari cɑla le-ti (hɛ)
Nadya.F.Sg.Nom car.F.Sg.Nom drive take-Impf.F.Sg be.Pres.Sg
'Nadya does/will drive a car.'

b. gari nadya cɑla le-ti (hɛ)
car.F.Sg.Nom Nadya.F.Sg.Nom drive take-Impf.F.Sg be.Pres.Sg
??*'Nadya does/will drive a car.'
'?As for a/the car, Nadya drives it.'

• Topic is clause initial (Butt and King 1996, Kidwai 1997).
• A change in word order (interaction with discourse functions) rules out the dispositional reading and marginally allows a habitual reading.

• The (ordinary) habitual reading is not affected by word order.

(70) a. nadya kiriã=ko mar de-ti hɛ
Nadya.F.Sg.Nom ant.F.Pl Acc hit give-Impf.M.Sg. be.Pres.Sg
'Nadya kills ants.'

b. kiriã=ko nadya mar de-ti hɛ
ant.F.Pl=Acc Nadya.F.Sg.Nom hit give-Impf.M.Sg be.Pres.Sg
'Nadya kills ants.'

5.4.6 Conclusion:

• Dispositional Predication is over the topic.

• The dispositional reading found with *le* involves a different kind of semantics than the habitual reading found with the other light verbs.

5.5 Towards a Semantic Analysis

5.5.1 Generics

The literature on generics basically investigates two types of generics (see Carlson and Pelletier (1995) for a detailed discussion):

1. reference to kinds ((71a))

2. propositions which express a general property, i.e., a regularity which summarizes groups of particular episodes or fact ((71b)).

(71) a. Lions are predatory cats.

   b. Mary smokes cigars.

The Urdu examples fall under Class 2 of generics.

However, the bulk of the literature has concentrated on quantificational readings of generics (various partitionings/interpretations of a generic operator GEN).

5.5.2 Stage/Individual Level

Within an examination of generics, a distinction between two types of verbal predicates was proposed (Carlson 1977):

TYPE	PROPERTIES	EXAMPLE
individual-level predicates	stative predicates predicated of individuals	*Nadya knows French.*
stage-level predicates	non-stative or episodic	*Mary is smoking.*

• Carlson's original proposal was taken up and reformulated by Diesing (1988, 1990) and Kratzer (1995).

• **Question:** Can this distinction be used to account for the Urdu constructions?

- **Answer: No**

  - The Urdu complex predicates and the "ability" passive appear to be predicating a certain property of an individual, while simultaneously making use of an episodic type of predicate.

  - A thorough examination of further properties associated with individual-level predication reveal that the Urdu constructions cannot be aligned with individual-level predication (cf. Chierchia 1995, for example).

5.5.3 Dispositions

- The readings most closely related to the Urdu dispositional complex predicate are Lawler's existential and potential readings.

(72) My pet toad will eat flies.

(73) Nadya speaks French.

- These readings are also sometimes referred to as *dispositional* (Krifka et al. 1995:41).

- Better known dispositional readings are as in (74).

(74) Sugar is soluble in water.

- These types of readings have a law-like flavor (this is the way the world is) and can be given a modal (necessity) interpretation (Kratzer 1981).

- Given that Lawler already argued for a modal interpretation of (72) and (73), this would appear to be the most promising avenue to explore.

5.5.4 Modality

Kratzer's (1977, 1979, 1981) Theory of Modality

- Possible World Semantics

- Three parameters of modal operators.

  - *Modal relation* (operators): $\Box$ (must) vs. $\Diamond$ (can)
  - *Modal base*: conversational background/context of utterance
  - *Ordering source*: conversational background context that is used to define a partial order upon the worlds that are defined by the modal base. The quantification ranges over the worlds that are most similar to the ideal defined by the ordering source (i.e., it imposes an order from "most normal" to "abnormal").

Sinhala Involitives

One possible use of Sinhala *involitives* produces a reading that is very close to the Urdu dispositional complex predicate: in each case a possible negative expectation by the speaker/hearer is overriden (Inman 1993).

(75) mahatun atin mee kæǣme hoňdeţe hædenewa
      Mahtun Erg this food   well   make.Inv.Pres
      'Mahatun makes this food well (unexpectedly).'
      'Mahatun happens to make this food well.'

(76) nadya   accʰa   kʰana   bɑna le-ti
      Nadya.F.Sg.Nom good.M.Sg. food.M.Sg.Nom make take-Impf.F.Sg
      hɛ
      be.Pres.Sg
      'Nadya will/does make good food.'

• Inman (1993) analyzes Sinhala involitives in terms of a *happen to* modality within Kratzer's approach.

  • Assumes a *doxastic* modal base (taking into account the speaker's expectations).

  • Defines an Operator INV, which yields a true reading of a proposition in exactly the case when there exists a possible world w' compatible with the speaker's expectations in which the proposition is not true (i.e., Mahatun has been known to cook badly).

    $$[[inv\ \alpha]]^{M,w,g}1 \leftrightarrow [[\alpha]]^{M,w,g}1 \land \exists w'[(w' \in \cap g(w)) \land [[\alpha]]^{M,w',g}0]$$

5.5.5   Formulating the Necessary Ingredients

Given that the interpretation of the Sinhala involitive is close (but not identical) to the dispositional complex predicate, a similar analysis should extend to Urdu as well.

Dispositional Complex Predicate

Possibility 1 — An Analysis in terms of Ability

  • *Modal relation*: ◇ (can)

  • *Modal base*: The speaker's expectations and what we know or have observed about the subject/topic of predication in the past (epistemic).

• The requirements for the modal relation (operator) and the modal base are introduced to the semantics through the lexical semantics of *le*.

Possibility 2 — Conditional Necessity

• The simple ability analysis does not reflect the data in (**??**), which seems to indicate that if a certain set conditions are met, then the action will be performed.

• Therefore an analysis in terms of conditional necessity (see Kratzer (1979)) appears to be more promising.

  • *Modal relation*: □ (must)

  • *Modal base*: The speaker's expectations and the conditions under which the subject/topic of predication will perform the given action.

5.6 Ability Passives

5.6.1 Background — Standard Passives

• Standard passives are formed with the verb *ja* 'go' (in all tenses) in combination with perfective morphology on the main verb.

• Though standard passives are a part of Urdu/Hindi, speakers tend to avoid using them and they sound stilted.

Adapted from T. Mohanan (1994a:183)

(77) cor   (pʊlɪs=se) pɑkɽ-a   gɑ-ya
      thief.M.Sg.Nom police=Inst catch-Perf.M.Sg go-Perf.M.Sg
      'The thief was caught by the police.'

(78) cor   (pʊlɪs=se) pɑkɽ-a   ja-ta
      thief.M.Sg.Nom police=Inst catch-Perf.M.Sg go-Impf.M.Sg
      'The thief gets caught by the police.'

• **Question:** How does the passive in (79) acquire the "ability" reading?

(79) nadya=se   gari   cɑla-yi   ja-ti   (hɛ)
      Nadya.F.Sg=Inst car.F.Sg.Nom drive-Perf.F.Sg go-Impf.F.Sg be.Pres.Sg
      'Nadya has the ability to drive a car.'
      'A car gets driven by Nadya.'

5.6.2 Semantics

Utter Inability:
In descriptive grammars of Hindi/Urdu (e.g., Glassman 1976, Van Olphen 1980) this form of the passive is usually cited as expressing utter inability or impossibility.

(80) nadya=se   ye   urdu=k-i   cɪṭṭʰi
     Nadya.F.Sg=Inst this Urdu=Gen-F.Sg letter.F.Sg.Nom
     paṛʰ-i   nɑhĩ ja-ti
     read-Impf.F.Sg not   go-Impf.F.Sg
     (hɛ)
     be.Pres.Sg
     'Nadya does not have the ability to read this Urdu letter.'
     'This Urdu letter does not get read by Nadya.'

In the context of a broken leg (Glassman 1976:275):

(81) ʊs=se   cɑl-a   nɑhĩ ja-e-g-a
     Pron=Inst walk-Perf.M.Sg not   go-3.Sg-Fut.M.Sg
     'She/he can't possibly walk.'

• The negation of the modal *sak* can only parallel this reading with additional modification.

(82) a. vo   cɑl   nɑhĩ sak-ti   hɛ
     Pron.Nom walk not   can-Impf.F.Sg be.Pres.Sg
     'She can't walk.'

     b. vo   bɪlkʊl   cɑl   nɑhĩ sak-ti   hɛ
     Pron.Nom absolutely walk not   can-Impf.F.Sg be.Pres.Sg
     'She absolutely cannot walk.'

Positive Ability:
Speakers can, however, use this form of the passive positively as well.

(83) nadya=se   ye   urdu=k-i   cɪṭṭʰi   paṛʰ-i
     Nadya.F.Sg=Inst this UrduGen-F.Sg letter.F.Sg.Nom read-Impf.F.Sg
     ja-ti
     go-Impf.F.Sg
     (hɛ)
     be.Pres.Sg
     'Nadya has the ability to read this Urdu letter.'
     'This Urdu letter gets read by Nadya.'

• This positive form is almost indistinguishable from a positive use of the modal *sak* 'can'.

• A slight difference comes from the fact that the ability passive tends to denote (dis)abilities arising from factors within one own's mind/body rather than the outside world.

(84)

Type	**Properties**
sak 'can'	expresses (dis)ability
	factors governing (dis)ability can come from anywhere
	can be used to give permission, i.e., *I allow him to go.*
passive	expresses (dis)ability
	(dis)ability confined to state of one's own body/mind
	cannot be used to give permission

State of Body:

(85) mer-e   dãtõ mẽ   aj   dɑrd hɛ,   mʊjʰ=se
    my-Pl.Obl tooth.M.Pl.Obl in today pain be.Pres.Sg I.Obl=Inst
    kʰana   nɑhĩ kʰa-ya
    food.M.Sg.Nom not   eat-Perf.M.Sg
    ja-ega
    go-Fut.M.Sg
    'My teeth hurt today, I won't be able to eat food (at all).

5.6.3   Syntactic Properties

A Complex Predicate Analysis

- • Can occur in all tenses (not confined to the imperfect).

- • Turns out to be a complex predicate:

  - – Can combine with intransitives (unlike the "proper" passive).
  - – The Instrumental NP is not optional (unlike in the true passive).
  - – The Instrumental NP can control an adverbial participial, in contrast with the true passive.

Word Order Constraints

• The ability reading is independent of word order.
• However, the ability reading is more dominant when the instrumental is in clause initial position.

(86) a. nadya=se   gari   cɑla-yi   ja-ti   hɛ
       Nadya.F.Sg=Inst car.F.Sg.Nom drive-Perf.F.Sg go-Impf.F.Sg be.Pres.Sg
       'Nadya has the ability to drive a/the car.'
       'A/the car gets driven by Nadya.'

     b. gari   nadya=se   cɑla-yi   ja-ti   hɛ
       Nadya.F.Sg=Inst car.F.Sg.Nom drive-Perf.F.Sg go-Impf.F.Sg be.Pres.Sg
       'Nadya has the ability to drive the car.'
       'The car gets driven by Nadya.'

• The same holds for the modal *sak*.

(87) a. nadya   gari   cɑla sɑk-ti   hɛ
       Nadya.F.Sg.Nom car.F.Sg.Nom drive can-Impf.F.Sg be.Pres.Sg
       'Nadya can drive a/the car.'

     b. gari   nadya   cɑla sɑk-ti   hɛ
       Nadya.F.Sg.Nom car.F.Sg.Nom drive can-Impf.F.Sg be.Pres.Sg
       'Nadya can drive the car.'

Conclusion:
• There is no significant interaction with discourse.
• The semantics of the ability passive are very close to that of the modal 'can'.

5.6.4   Towards Formulating the Semantics

- *Modal relation*: ◇ (can)

- *Modal base*: subject's capabilities, as pertaining to the state of his/her body and state of mind

• The requirements for the modal relation (operator) and the modal base are introduced to the semantics through the lexical semantics of *ja*.

5.7   Answering the Initial Questions

The complex predicates with *le* and the ability "passive" differ from other complex predicates in that a modal semantics is introduced — and not an aspectual or event modificatory, or passive semantics.

6   Appendix: Valency Changing vs. Complex Predication

Several constructions exist crosslinguistically which involve argument structure operations (deletion, addition, modification). However not all of them are appropriately analyzed as complex predicates.

How can one tell?

6.1   Applicative

Applicatives license an extra direct argument.

The new or "applied" object in Kichaga may be a beneficiary/maleficiary, goal/recipient, instrument, location or motive (reason or purpose).

(88) a. N-ǎ- í-ly-à   k-élyà.
        Foc-1S-PR-eat-FV 7-food
        'He/She is eating food.' (Kichaga, Bresnan and Moshi 1990:1)

   b. N-ǎ-í-lyì-í-à   m̀-kà k-élyà.
        Foc-1S-PR-eat-AP-FV 1-wife 7-food
        'He/She is eating food.' (Kichaga, Bresnan and Moshi 1990:1)

   c. N-ǎ-í-lyì-í-à   mà-wòkő k-êlyâ.
        Foc-1S-PR-eat-AP-FV 6-hand   7-food
        'He/She is eating food with his/her hands.'
        (Kichaga, Bresnan and Moshi 1990:1)

Within LFG, applicatives are taken to operate on argument structure representation. But does that make them complex predicates?

6.2   Passives

- Tense/Aspect auxiliaries and passives are often drawn from the same inventory as light verbs (e.g., 'go', 'stay', 'become').

- But every periphrastic construction is not a complex predicate (and vice versa).

- Paul (2003) examines the Persian 'become' and discusses whether it should be analyzed as a passive auxiliary or a light verb.

(89) a. Hasan sag-hā-rā   košt-O.
        Hasan dog-Pl-DO killed-3Sg
        'Hasan killed the dogs.' (Persian)

      b. sag-hā tavassot-e   Hasan košt-e   šod-and
         dog-Pl by.means-of Hasan killed-Ptc became-3Pl
         'The dogs were killed by Hasan.' (Persian)

Persian has N-V complex predicates ((90), see Megerdoomian 2002) which share a number of formal properties with the passive: single primary stress; may be nominalized; resist separation by adverbs, but some elements may intervene (e.g., negation); the final verb always carries tense/aspect; formed syntactically (not in the lexicon) while showing a number of "cohesive" properties which make the V-V or N-V appear like a unit.

(90) sāl-hā   sāsān-rā   šenkanje dād-and
     year-Pl Sasan-DO torture   gave-3Pl
     'They tortured Sasan for years.' (Persian)

However, the two can be differentiated.

1. **Volitionality of the Agent**: the V+'become' always implies a volitional agent. This not true of light verbs in general.

    (91) *Kimea amdan   dir be donyā āmad-O
        Kimea intentionally late to world came-3Sg
      *'Kimea intentionally was born too late.' (Persian)

2. **Aktionsart**: N+V light verbs affect the Aktionsart of the complex predicate. This is never true for the passive.

    (92) a. dast-e   Daryuš (dar yek saniye/*sā'at-hā) dard gereft-O
        hand-Ezafe Daryuš in   one second/hour.Pl   pain got-3Sg
        'Dariush's hand (started to) hurt (in one second/*for hours).
        (Persian, Megerdoomian 2002:84)

       b. Daryuš (*dar yek saniye/sā'at-hā) dard kešid-O
        Daryuš in   one second/hour.Pl pain pulled-3Sg
        'Dariush was in pain (*in one second/for hours).
        (Persian, Megerdoomian 2002:84)

3. **Passivization**: The N+V complex predicates may themselves be passivized, but a passive does not serve as input for a compound verb.

    (93) sāl-hā   dar zendān Esi šenkanje dād-e   šod-O
       year-Pl in   prison Esi torture give-Ptc became-3sg
       'For years Esi was tortured in prison.' (Persian)

So the passive auxiliary in Persian differs structurally from light verbs.

But passives and applicatives should also not be considered light verbs on event semantic grounds.

7 Event Structure

Butt and Ramchand 2003, Butt and Scott 2002, Butt and Geuder 2001:

- Light verbs serve to modulate/modify the primary event predication of the main verb/noun.

- They provide more information about either the cause of the event or the result of the event (or both).

7.1 Passives

Passives have an *argument reduction* effect but they do not show other event modification effects (e.g., no aktionsart alternations, no variations on the type of the cause(r)). So they are not complex predicates.

7.2 Reflexives

Reflexives have been argued to be a type of complex predicate (Alsina 2000) and indeed they give rise to some "middle" ((94)) and aspectual/aktionsart ((95)) readings.

(94) Dieses Buch liest   sich leicht.
     this   book reads self easy
     'This book reads easily.' (German, from Kaufmann 2001:241)

(95) a. Juan durmió.
        Juan slept
        'Juan slept.' (Spanish, from Kaufmann 2001:250)

     a. Juan se   durmió.
        Juan self slept
        'Juan fell asleep.' (Spanish, from Kaufmann 2001:250)

However, these constructions are no more complex predicates than passives (or middles).

- Reflexives do not *delete* or *demote* an argument, as passives do, but they have an effect on referentiality of arguments. So reflexives do not operate on argument structure like light verbs do, but operate with notions of referentiality.

- Kaufmann (2001) points out that the relevant factor in the analysis of middles (morphologically marked) and reflexives is whether the thematically highest argument is invested with *situational control* over the action. Middles and reflexives mark a deviation from the standard situational control assumptions and thereby give rise to a number of differing readings.

- Reflexives and passives therefore mark a shift in focus/topic that deviates from the standard (active) realization.

- This is very different to the effect light verbs have.

7.3 Causatives vs. Applicatives

Both causatives and applicatives *add* an argument to the predication.

However

- Applicatives license the syntactic realization of an argument that was already implicit in the lexical semantics of the verb (e.g., buy something *for somebody*, eat *with something*).

- Causatives modify the event structure of the basic predication by specifying a causal event (and thereby add to the argument structure).

- Some causatives give rise to monoclausal structures, others to biclausal ones (e.g., English *I made him eat the porridge.*)

- The syntactic degree of cohesion is language dependent and is probably influenced by the conceptualization of causation: how intimately is the causative event tied to the basic event (e.g., English monoclausal *The general marched the soldiers.* vs. biclausal *The general made the soldiers march.*)?

- Applicatives do not modify the basic event predication, therefore they do not function like light verbs.

7.4 Summary

- Light verbs supply information about the *event structure* of the predication, thereby also adding information (indirectly) as to the interpretation of the participants of the action.

- Reflexives, Passives and Applicatives supply information about the *participants* of the action, thereby also adding information (indirectly) about the event structure of the action.

7.5 The Question of Serial Verbs

A concrete distinction between a prototypical complex predicate and a prototypical serial verb is necessary.

- Serial verbs typically stack several events in a single clause.

- Complex Predicates denote a single (albeit complex) event.

- The light verb *le* 'take' in (97) merely contributes aspectual information to the extracting event, while in (96a) there are two events: a pulling event and a removing event.

  (96) a. kofi hari a   ston puru   na ini a   olo
         Kofi pull the stone remove Loc in the hole
         'Kofi pulled the stone out of the hole.'   (Sranan, Baker 1989)

       b. iire   rehe-sooni   vakilii rehe-haa
          1Pl.Incl 1Pl.Incl-Distant.Throw canoe 1Pl.Incl-Distant.Go
          'We will go, putting (throwing) our canoe to sea.'
          (Paamese, Crowley 1987:47)

  (97) ɑnjʊm=ne   pɑtʰɑr=ko   bahar nɪkal   li-ya
       Anjum.F.Sg=Erg stone.M=Acc out   extract take-Perf.M.Sg
       'Anjum extracted the stone.'   (Urdu)

- Light verbs modulate/modify the event semantics of the main verb in a subtle way.

- In contrast, serial verbs typically appear to denote a *complex* conceptual event which is subject to semantic and pragmatic conditions (Durie 1993).

- This complex conceptual event is governed by what is perceived to be a "normal" event.

  – In Sranan, *buy take fish* is an expected sequence of events, while *sell take fish* is not.

  – In Alamblak (Bruce 1988) an action which involves climbing a tree in order to look for insects is a reasonable complex event, but an action which involves climbing a tree in order to look at the moon is not.

    (98) a. mɨyt ritm   muh-hambray-an-m
            tree insects climb-search.for-1S-3Pl
            'I climbed the tree looking for insects.'
            (Alamblak, Bruce 1988:29)

         a. *mɨyt guñm muh-hëti-an-m
            tree stars climb-see-1S-3Pl
            'I climbed the tree and saw the stars.'
            (Alamblak, Bruce 1988:29)

- Further data exists from Akan, Oṛiya.

Understanding the literature on serial verbs, compound verbs and complex predicates is very confusing, however, because similar constructions may have been labeled differently (and vice versa). However, there is clearly a syntactic and semantic difference that must be accounted for.

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