Experiencers vs. Agents in Urdu/Hindi Nominalized Verbs of Perception

Miriam Butt,¹ Tafseer Ahmed¹ and Lucrezia Carnesale²

University of Konstanz¹ and University of Pavia-Bergamo²

LFG23 Conference
Rochester, July 2023
The Puzzle: Nominalized Verbs of Perception

• We look at constructions with two nominalized verbs of perception in Urdu/Hindi:
  1. * dikʰai ‘seeing’ (1a) 
  2. * sunai ‘hearing’ (1b) 

• These take dative subjects, as is expected for experiencer subjects in South Asian Languages (cf. Verma and K.P.Mohanan (1990)).

(1) a. mujʰ-e is=ka koi laksan nahĩ Pron.1.Sg-Dat this.Obl=Gen.M.Sg some sign.M.Sg.Nom not dikʰai de-t-a appearing give-Impf-M.Sg ‘I do not see any sign of it’ (Godan, Premchand) 

b. un-hē gogi=ki māhin avaj sunai Pron.3-Pl.Dat gogi=Gen.F.Sg sweet voice.F.Sg.Nom hearing d-i give-Perf.F.Sg ‘They heard Gogi’s sweet voice.’ (Calis ke bad prem, Raghuvir Sahay)
The Puzzle: Case

- The nominalizations ‘seeing/hearing’ combine with the verb *de* ‘give’.
- **But:** *de* ‘give’ only licenses agentive (ergative or nominative) subjects elsewhere in the language.

**Questions:**

1. Why is there not an ergative/nominative subject in these clauses?
2. Why does the combination with nominalized verbs of perception seem to constitute an exception in the language?
The Puzzle: Valency

- ‘give’ is generally a three-place predicate
- Verbs of perception are generally two-place predicates
- The combined seeing/hearing+give predication has two arguments: an experiencer and a stimulus.

(2) a. mujh-e is=ka koi lākṣaṇān nahī
dāk-ai de-t-a
‘I do not see any sign of it’

*(Godan, Premchand)*

Questions:

1. If the combination of seeing/hearing+give is a complex predicate of the type established for Urdu/Hindi (Butt 1995, Mohanan 1994), then why is (2) not a 4-place predicate?
2. If the combination of seeing/hearing is not a complex predicate, what is it?
Introduction

Structure of the Talk

1. Data sources
2. The verb *de* ‘give’ elsewhere in the language.
3. Butt’s theory of complex predicates and light verbs.
4. Experiencer subjects elsewhere in the language.
5. More data
6. Analysis via Linking (Argument Mapping) and Complex Predication
Our Data

- **Carnesale**: A corpus of Hindi literary texts from the 20th century.
  - The corpus contains 78,054 sentences, for a total of 1,136,573 tokens.
  - The texts are mostly by:
    - Munshi Premchand (primarily)
    - Raghuveer Sahay
    - Mohan Rakesh

- **hiTenTen21**: The corpus consists of texts collected from the Internet and belongs to the TenTen corpus family.
  - The corpus contains 47,341,925 sentences, for a total of 901,352,786 tokens.
  - The corpus is available on SketchEngine.
    (https://www.sketchengine.eu/hitenten-hindi-corpus/)

- **UD Urdu UDTB**: Universal Dependency Treebank based on the Urdu Treebank (Bhat et al. 2015). It consists of 5,130 sentences.

- We also consulted previous literature, Google search and our own native speaker intuition.
The verb *de* ‘give’

- We know of no instance otherwise where *de* ‘give’ takes a dative subject.
- *de* ‘give’ is used as
  - a main verb
  - a light verb
- Its main and light verb uses are form- and paradigm-identical.
- Butt and Lahiri (2013) argue that this is due to one underlying lexical entry that gives rise to both main and light verb readings.
- This is a diachronically stable situation.
- There is no auxiliary or modal use of *de* ‘give’ that we are aware of.
The main verb *de* ‘give’

- As seen in (3a), the main verb *de* ‘give’
  - is ditransitive.
  - with an ergative subject, a nominative object and a dative indirect object.
- As expected, idiomatic and metaphorical uses can also be found in the language, (3b)

(3)  

a. **nadya=ne** batʃtʃe=ko kîtab d-i  
   ‘Nadya gave the child a/the book.’

b. **protestar=ne** ıslamabad=mē dʰ populist  
   protestor=Erg Islamabad=in sit-in.M.Sg.Nom give-Perf.M.Sg  
   ‘Protesters staged a sit-in in Islamabad.’
Case Alternations

- It is well-known that Urdu/Hindi works with case alternations (e.g., Butt and King (2004), Ahmed Khan (2009), Butt and Ahmed (2011), Butt (2022a) and references therein)
- Relevant for us:
  - Ergative/nominative alternation on (di)transitive agentive and unergative verbs.
  - Accusative/nominative alternation on direct objects.
Case Alternations: Ergative

The ergative/nominative alternation has:

a. a semantic condition: it can only appear with agentive arguments

b. a morphosyntactic condition: the ergative is required if the verb carries perfective inflection

\[(4) \]

\[\text{a. } \text{nadya}=\text{ne} \quad \text{batftje}=\text{ko} \quad \text{ktab} \quad \text{d-i} \]


‘Nadya gave the child a/the book.’

\[\text{b. } \text{nadya} \quad \text{batftje}=\text{ko} \quad \text{ktab} \quad \text{de-gi} \]


‘Nadya will give the child a/the book.’

A note on agreement:

- Verbal agreement can only take place with unmarked (=nominative) arguments in Urdu/Hindi.
- If the subject is nominative, the verb agrees with it.
- Else if the object is nominative, the verb agrees with it.
- Else there is default masculine singular agreement.
The accusative/nominative alternation is generally known as an instance of Differential Object Marking (DOM; Bossong (1985, 1991)).

a. Semantic condition: accusative is used to mark specificity of the object.

b. Morphosyntactic condition: the specificity DOM is restricted to direct objects.

(5) a. yasin=ne  kamputar  xarid-a
    Yassin.M.Sg=Erg computer.M.Sg.Nom buy-Perf.M.Sg
    ‘Yassin bought a/some computer.’

b. yasin=ne  kamputar=ko  xarid-a
    Yassin.M.Sg=Erg computer.M.Sg=ko buy-Perf.M.Sg
    ‘Yassin bought a (certain)/the computer.’
Back to *de* ‘give’

*de* ‘give’ is used as a **light verb** in at least three different complex predicates

1. aspectual *V-V* complex predicates
2. *N-V* complex predicates
3. the permissive
Light verb use of *de* ‘give’

- Aspectual complex predicates consist of:
  1. A main verb in its stem form.
  2. A light verb (also has been called *vector* or *compound* verb, e.g., see Hook (1974, 1991)) carrying the tense/aspect and agreement inflection of the predication.

(6)  
   a. nadya=ne baṭua kʰo di-ya  
      Nadya.F=Erg wallet.M.Sg.Nom lose give-Perf.M.Sg  
      ‘Someone lost a/the wallet.’ (based on Hook 1974, 310)
   b. nadya=ne tʃor=ko dub-a di-ya  
      Nadya.F=Erg thief.M=Acc sink-Caus give-Perf.M.Sg  
      ‘Nadya drowned the thief (dunked him completely).’

- The light verb *de* ‘give’ tends to convey benefaction, but not always.
- Generally it is associated with **responsibility** for an action (Butt and Geuder 2001) and **completion** of an action (Butt 1995).
- The light verb *de* in V-V complex predicates **always** takes an **ergative/nominative** subject.
Light verb use of *de* ‘give’

- N-V complex predicates consist of:
  - an uninflected noun that contributes the larger part of the predication
  - an inflected light verb

(7)  

a. \[ \text{nadya}=\text{ne} \quad \text{kahani} \quad \text{yad} \quad \text{k-i} \]
\[ \text{Nadya.F.Sg=Erg} \quad \text{story.F.Sg.Nom} \quad \text{memory} \quad \text{do-Perf.F.Sg} \]
\[ \text{‘Nadya remembered a/the story.’} \]
\[ \text{(lit.: ‘Nadya did memory of the story.’)} \]

b. \[ \text{nadya}=\text{ko} \quad \text{kahani} \quad \text{yad} \quad \text{a-yi} \]
\[ \text{Nadya.F.Sg=Dat} \quad \text{story.F.Sg.Nom} \quad \text{memory} \quad \text{come-Perf.F.Sg} \]
\[ \text{‘Nadya remembered a/the story.’} \]
\[ \text{(lit.: ‘Memory of the story came to Nadya.’)} \]

- The case on the subject is determined by the choice of the light verb (agentive ‘do’ vs. non-agentive ‘come’ in (7)), see also Butt (2022b).
Light verb use of *de* ‘give’

- The light verb *de* ‘give’ is not used very often as part of N-V complex predicates.
- But examples as in (8) can be found.
- The argument ‘diversity’ is contributed by the noun ‘attention’, indicating complex predication.

(8) \( b^h_aşa=ke \) \( \text{vivid}^h\)\(\text{ata}=par \) \( \text{ham}=ne \) \( \text{aramb}^h=se \)  
language.F=Gen.Obl diversity.M.Sg=on 1.Pl=Erg beginning=from  
\( d^h\)\(\text{yan} \) \( \text{di-ya} \)  
attention.M.Sg give-Perf.M.Sg  
‘From the very beginning, we paid attention to the diversity of languages.’ (hiTenTen21)

- The case of the subject (‘we’) is ergative, as is consistent with ‘give’ as an agentive verb.
Light verb use of *de* ‘give’

- A further use of *de* ‘give’ is as a light verb in a permissive.
- This consists of:
  - A verbal noun with invariant oblique infinitive inflection.
  - The inflected light verb ‘give’.

\[
\text{nadya}=\text{ne} \quad \text{batʃtʃe}=\text{ko} \quad \text{kitab} \quad \text{paɾ^h-ne} \\
\text{Nadya.F=Erg} \quad \text{child.M.Sg.Obl=Dat} \quad \text{book.F.Sg.Nom} \quad \text{read-Inf.Obl} \\
\text{d-i} \\
\text{give-Perf.F.Sg} \\
\text{‘Nadya let the child read a/the book.’}
\]

- Butt (1995) shows that these V-V combinations function as monoclausal predications
  - They are predicationally equivalent to simplex verbs.
  - There is no embedding (of verbs or arguments).
- Again, the subject of the complex predication with *de* ‘give’ is ergative, not dative.
Complex Predicates

Definition of a Complex Predicate (based on Butt 1995)

Complex predicates are formed when two or more predicational elements enter into a relationship of co-predication. Each predicational element adds arguments to a monoclausal predication. Unlike what happens with control/raising, there is no syntactic embedding into a complement clause.

Several pieces of machinery are needed to make this work:

- Light verbs are taken to be an instance of incomplete predication: they need to combine with another predicate (cf. Alsina (1996)).
- This is indicated by a variable (marked with a % as per XLE notation) in their a(rgument)-structure, see (10) for permissive ‘give’.

\[ \text{(10)} \quad \text{give} < \text{agent goal} \ %\text{Pred} > \]
Complex Predicates: A Proposal

- When two argument structures are combined, individual arguments can be identified with one another.
- This is not the result of random combinations, but the lowest matrix argument combines with the highest embedded one at a-structure.
- Butt (2014): This is parallel to what has been established for syntactic control and raising.

<table>
<thead>
<tr>
<th>syntax (f-structure)</th>
<th>Control</th>
<th>Raising</th>
<th>Complex Predicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-structure</td>
<td>PRO controlled (fusion)</td>
<td>Exceptional Case Marking (ECM) arguments unified (raising)</td>
<td>No Yes</td>
</tr>
</tbody>
</table>

- **That is:** Argument Identification at the level of syntax has been called control/raising.
- Similarly, Argument Identification exists at the level of a-structure.
- This leads to complex predication (or clause union or argument merger or restructuring, as it has variously been called).
Nadya let Yassin [read the book].

- composed a-structure:
  give/let < agent goal; read < agent; patient >>

- monoclausal f-structure

```
pred ['let-read < subj, obj_{go}, obj > ']
  subj
    [ pred 'Nadya'
      case erg ]

  obj_{go}
    [ pred 'Yassin'
      case dat ]

  obj
    [ pred 'book'
      case nom ]

  tns-aspr
    [ tense past
      aspect perf ]
```
Mapping/Linking

- Below is a mapping between a-structure and f-structure that uses standard assumptions and the \([\pm o(bjective)]\) and \([\pm r(estricted)]\) features.
- As can be seen, an application of standard Mapping Theory in combination with argument fusion yields exactly the right results.

\[\text{(11)}\]
\[
\begin{array}{cccc}
\text{nadya}=\text{ne} & \text{batʃtʃe}=\text{ko} & \text{kitab} & \text{par}^h-\text{ne} \\
\text{Nadya.F=Erg} & \text{child.M.Sg.Obl=Dat} & \text{book.F.Sg.Nom} & \text{read-Inf.Obl} \\
\text{d-i} & \text{give-Perf.F.Sg} \\
\text{‘Nadya let the child read a/the book.’}
\end{array}
\]

give/let < agent goal; read < agent; theme >>
\[
\begin{array}{cccc}
\text{[−o]} & \text{[+o]} & \text{[−o]} & \text{[−r]} \\
\text{subj} & \text{obj}_{go} & \text{obj} \\
\text{Erg/Nom} & \text{Dat} & \text{Nom}
\end{array}
\]
The combination of seeing/hearing+give acts like other experiencer predicates in the language, compare (12a) and (12b).

- The experiencer predicates tend to be N-V complex predicates
- They take a dative subject.
- They consist of a noun plus an inflected verb.

(12) a. muj^h^-e b^h^uk laq-i
   Pron.1.Sg-Dat huger.F.Sg be.attach-Perf.F.Sg
   ‘I felt hunger.’ (Standard Experiencer Predicate)

   b. muj^h^-e jahaz dik^h^-a-i di-ya
   Pron.1.Sg-Dat plane.M.Sg.Nom seeing give-Perf-M.Sg
   ‘I saw a plane’ (Seeing+Give)

However:

- How can we account for a dative subject with ‘give’ (never has one otherwise)?
- How can we account for the two-place valency (will it work with the existing theory of complex predication)?
Adducing More Data/Information

- No trace of an agentive/ergative argument was found in any of the examples with $ dik^h ai/sunai+de $ in our corpora.
- The addition of an agentive argument to $ dik^h ai/sunai+de $ constructions is judged as severely ungrammatical by native speakers.
- The verb ‘give’ does not combine with any other such nouns in the language: $ dik^h ai $ and $ sunai $ are the only ones.

**Conclusions:**
- the verb $ de $ ‘give’ exceptionally does not license an agentive argument in this construction
- the construction is very limited and not productive
Adducing More Data/Information

We looked into the morphological make-up of dikₕai and sunai.

- The nouns dikₕai and sunai each consist of (Chatterji 1926, §402):
  - a verb stem (dikₕ ‘appear to’ and sun ‘hear’)
  - the verb stem is causativized via the addition of the causative morpheme -a
  - and is further nominalized via the feminine nominalization affix -i
  - Both the causative and the nominalization morphemes are productive.

- Given that the nominalizations contain a causative, one would expect an agent argument somewhere in the predication, either from ‘give’ or from the causativization.

- Following the established analyses for complex predication, one should get something as in (13), with three arguments.

- But we only end up with two.

(13) GIVE < agent goal; CAUSE < agent; HEAR < experiencer; stimulus >>>
Dative Argument as Subject

• One could try to build an analysis in which the agent argument is somehow unexpressed but still there.
• However, there is no evidence for this.
• In particular, subject tests show that the dative experiencer is functioning as a subject.

(14)  

a. muj\textsuperscript{h}-e \quad \text{apn}-e \quad \text{g}^h\text{har}=\text{mē}=\text{se} \quad \text{ek} \quad \text{bū}^h\text{-i} \quad \text{aurat}  
\quad \text{Pron.Sg.1.Obl-Dat} \quad \text{self-Obl} \quad \text{house=in=Abl} \quad \text{one} \quad \text{old-F.Sg} \quad \text{woman.F.Sg.Nom}  
\quad \text{nikal-t-i} \quad \text{hu-i} \quad \text{dik}^h\text{-a-i} \quad \text{d-i}  
\quad \text{emerge-Impf-F.Sg} \quad \text{become-Perf.F.Sg} \quad \text{appear-Caus-F.Sg} \quad \text{give-Perf.F.Sg}  
\quad \text{'}I saw an old woman coming out of my house.' \quad \text{(Apni karni, Premchand)}

b. [\text{age} \quad \text{ja=k}r] \quad \text{un-hē} \quad \text{ran}=\text{ke} \quad \text{pas} \quad \text{ek} \quad \text{k}^h\text{ubsurat}  
\quad \text{ahead} \quad \text{go=CP} \quad \text{3.Pl.Obl-Dat} \quad \text{Ran=Gen.Obl} \quad \text{near one beautiful}  
\quad \text{bag} \quad \text{dik}^h\text{-a-i} \quad \text{de-t-a} \quad \text{hē}  
\quad \text{garden.M.Nom} \quad \text{appear-Caus-F.Sg} \quad \text{give-Impf-M.Sg} \quad \text{be.Prs.3.Sg}  
\quad \text{'}They continue forward and they see a beautiful garden next to Ran.' \quad \text{(hiTenTen21)}

• The reflexive in Urdu/Hindi is subject-oriented (Gurtu 1985, Mohanan 1994) and is oriented towards the dative in (14a).
• The unexpressed (PRO) subject is generally controlled by a subject, this is the dative in (14b).
Analysis

Dative Argument as Subject

- If one wants to express an agentive sense, needs to be done via the addition of another verb: ‘go’.
- This has can be used to express a passive, but also an ability reading with an instrumental (Butt 1997).

$$\text{(15) } \text{polis=se tʃor pəkɾ-a ja-ta he }$$
$$\text{police=Inst thief.M.Sg.Nom catch-Perf.M.Sg go-Impf.M.Sg be.Prs.3.Pl}$$
$$\text{‘The police are able to catch a/the thief.’}$$

- An unspecified instrumental agent can be added to the following example (shown in brackets)

$$\text{(16) } \text{ham jo dekʰ-na cah-t-e he ham-ẽ }$$
$$\text{1.Pl.Nom which see-Inf.M.Sg want-Impf-M.Pl be.Prs.3.Pl 1.Pl-Obl}$$
$$\text{vah-i (kisi=se) dikʰai di-ya ja-ta }$$
$$\text{that-Emph (somebody=Inst) seeing give-Perf.M.Sg go-Impf-M.Sg}$$
$$\text{he be.Prs.3.Pl}$$
$$\text{‘We are shown what we want to see.’}$$
The Nominalized Causatives

- The nominalized causative is not productive in the language anymore.
- Some fixed examples are $\text{car}^h\text{-ai}$ 'climb, ascent', $\text{lip-ai}$ ‘painting’, $\text{lar-ai}$ ‘fight’, $\text{luṭ-ai}$ ‘plundering’, $\text{par}^h\text{-ai}$ (e.g., see Kachru (1980), Saksena (1982)),
- We could thus hypothesize that $\text{dik}^h\text{ai}$ and $\text{sunai}$ have been lexicalized to be nouns of perception with an attendant experiencer/theme argument structure.
- So rather than (17) we have (18).

(17) Originally:
$cause < \text{causer/agent appear/listen} < \text{experiencer theme} >$

(18) After Lexicalization:
$seeing/hearing < \text{experiencer theme/stimulus} >$
The status of ‘give’

- We have been assuming that *de* ‘give’ is a light verb.
- This also means that we predict an agentive argument — but one that we do not find in the nominalized perception N-V combinations.
- We could instead assume that *de* ‘give’ is syntactically and semantically quite empty and plays no role.
- However:
  - then we have no explanation for the syntactic status of the *díkʰ ai/sunai*
  - it is not clear why *de* ‘give’ should be involved rather than some other semantically light verb like ‘go’ or ‘come’.
  - In the seeing/hearing construction the *de* ‘give’ cannot be analyzed as an auxiliary (situates an event in time) or a modal (situates an event in terms of possible worlds) either semantically or syntactically.
  - In the seeing/hearing construction the *de* ‘give’ is clearly also not functioning as main verb.
Putting together the pieces

- Given the syntactic (and semantic) parallels with other N-V experiencer complex predicates, it is likely that ‘give’ is a light verb when combining with ‘seeing/hearing’.
- In our analysis, we assume Butt’s theory of complex predication.
- But also: the event-based linking proposed by Schätzle (2018) and Beck and Butt (2023).
- And we propose to take the causative and nominalizing morphology on $ dik^h ai/s\nu nai$ seriously, rather than assuming a lexicalized version.
Event-based linking

- Unlike many other proposals for relating argument structure to syntactic roles, standard LFG does not assume an event-based representation.
- An exception is Butt's (1995) proposals for linking based on Jackendoff’s ideas (e.g., Jackendoff (1990)).
- A more recent proposal:
  - integrates Ramchand’s (2008) tripartite organization of subevental structure
  - combines this with the use of Proto-Role information (Dowty 1991) as proposed by Zaenen (1993)
  - and works with the ideas in Kibort’s (2014) version of LFG’s Mapping Theory.
- Kibort posits four abstract argument positions as an independent tier of representation (‘argument slots’) at a-structure, eschewing thematic role labels.
Event Based Linking

- Ramchand (2008) decomposes an event into three major subevents, each of which causes/initiates the other
  1. a causing or initiating subevent \( \text{init} \); results in a
  2. a process subevent \( \text{proc} \); results in a
  3. a result state \( \text{res} \).
- In addition, \textit{rhemes} \( \text{rh} \) are taken to be in a static relationship with one of the three subevents of a predicate, like a static spatial Figure/Ground relationship.
- Each of these four event slots licenses an argument participant (corresponding to Kibort’s four).
Template

(19) General Linking Schema

\[
\begin{array}{cccccc}
\text{init} & \text{proc} & \text{res} & \text{rh} \\
\text{predicate} & < & x & x & x & > \\
\text{figure} & \text{ground} \\
\end{array}
\]

grammatical relations subj obj obj_{theta} obl

- Abstract argument slots are licensed by the subevents init, proc, res and rh.
- These are further associated with figure/ground relations (Talmy 1975).
- The entailments generated by figure/ground and, for example, being an initiator vs. an undergoer of a process are factored into the linking to grammatical relations, as per Zaenen’s (1993) ideas.
- The argument with the most Proto-Agent properties is linked to the SUBJ.
- The argument with the most Proto-Patient properties is linked to the OBJ.
Example: Active Agentive Clause

Indra killed the serpent.

- ‘Indra’ has three Proto-Agent (P-A) properties:
  ① initiator of an event
  ② the figure
  ③ is sentient

- ‘serpent’ has three Proto-Patient (P-P) properties:
  ① casually affected (proc)
  ② undergoes a change of state (res)
  ③ the ground
Example: An Experiencer Predicate

Katherine fears nightmares.

\[
\begin{array}{c}
\text{init (holder)} \quad \text{rh} \\
\downarrow \\
fear < x_{Katherine} \quad x_{nightmares} > \\
\downarrow \\
\text{FIGURE} \quad \text{GROUND} \\
\downarrow \\
P-A: **, P-P* \quad P-P:* \\
\downarrow \\
\text{SUBJ} \quad \text{OBJ}
\end{array}
\]

- ‘Katherine’ has two Proto-Agent properties and one Proto-Patient property.
  1. holder of a state (P-P) – analysis based on Ramchand
  2. the figure (P-A)
  3. is sentient (P-A)
- ‘nightmares’ has one Proto-Patient property:
  1. the ground
We propose that an adoption of a tripartite event decomposition provides the right kind of perspective on the argument composition.

We illustrate this with respect to example (20).

\[(20)\] 
\[
\text{muj}^h\text{-e} \quad \text{jahaz} \quad \text{dik}^h\text{-a-i} \quad \text{di-ya}
\]

\[
Pron.1.Sg-Dat \quad \text{plane.M.Sg.Nom} \quad \text{appear-Caus-Nomlz.F} \quad \text{give-Perf-M.Sg}
\]

\['I saw a plane' \hspace{1cm} (Seeing+Give)\]

The pieces of argument structure that combine in this predication are:

1. The experiencer predicate \textit{dik}^h ‘appear’: init (holder of state) and a rheme (stimulus)
2. The causative: init and proc
3. The nominalization: suppresses the highest argument
4. The light verb \textit{de} ‘give’: init (the giver), proc (the thing given) and result (the person/place given to).
Combining Argument Structures

(21) mujʰ-e jahaz dikʰ-a-i di-ya
Pron.1.Sg-Dat plane.M.Sg.Nom appear-Caus-Noml.F give-Perf-M.Sg
‘I saw a plane’

- The thing that is given is the ‘seeing’ predicate, so this needs to be substituted in for the argument licensed by the proc subevent.
- Similarly, the cause predicate needs to have its %proc slot filled by a predication.
- That is the experiencer predicate.

\[
\begin{align*}
give & \; < \; init \; \%proc \; res \; > \\
& \quad \text{|} \\
\text{cause} & \; < \; init \; \%proc \; > \\
& \quad \text{|} \\
\text{appear to} & \; < \; init \; rh \; > 
\end{align*}
\]
Combining Argument Structures

- Overall this then gives us the complex argument structure in (22).
- The nominalization prevents the init arguments from being expressed in the syntax.
- This leaves two arguments, a rheme (the stimulus) and a result, which is the endpoint of the ‘giving’.

\[
\begin{align*}
give & < \ x_{\cdot i} \\
cause & < \ x_{\cdot i} \\
appear \ to & < \ x_{\cdot i} \ x \ >> \ x \ >
\end{align*}
\]

Nominalization

\(\emptyset\)

(22)
Linking the Combined Argument Structures

• Focusing in on just the two arguments available for linking, we see that we get just the right results under the event-based linking.

\[
give\_seeing \quad < \quad x\_plane \quad \Rightarrow \quad x\_I
\]

 rh res GROUND FIGURE
P-P:* P-A:**, P-P:* OBJ SUBJ Nom Dat

• There is a fuller story to this, which involves the rise of dative subjects diachronically (Beck and Butt 2023).

• There we find exactly the same configuration in which a former goal is reinterpreted as an experiencer, leading ultimately to the experiencer configuration we already saw with Katherine fears nightmares.
Experiencer Subjects

- We suggest that similarly a reanalysis of an originally complex predication has taken place.
- Which accounts for the fact that this construction is not productive today (can only find this with $dik^{h}ai$ and $sunai$).
Further Data

- We can explain examples where \( dik^h ai \) and \( sunai \) combine with \( par \) ‘fall’ as in (23) along similar lines.
- The dative experiencer argument would here originally be derived from the locative argument contributed by the verb ‘fall’.

(23)  

\[
\begin{align*}
a. & \quad \text{acanak (muj}^\text{h}e) \quad \text{ek hiran} \quad dik^h\text{ai par-a} \\
& \quad \text{Suddenly Pron.1.Sg.Dat one deer.M.Sg.Nom seeing fall-Perf.M.Sg} \\
& \quad \text{‘Suddenly a deer appeared (to me).’} \\
\text{b.} & \quad \text{uhnê kuc for sunai par-a} \\
& \quad \text{Pron.P1.Dat some loud.noise.M.Sg.Nom hearing fall-Perf.M.Sg} \\
& \quad \text{‘He heard some loud noise.’}
\end{align*}
\]
Further Data

- However, we have no ready explanation for examples as in (25), in which the also normally agentive light verb \textit{kar} ‘do’ is also found with a dative experiencer subject rather than the expected agentive one.
- But this is also different construction, so need to investigate further.

\begin{verbatim}
(24) parvati=ko chopr\textsuperscript{\textnumero} k\textsuperscript{\textnumero}el-ne=ka man
kiya
doi-Perf.M.Sg

‘Parvati felt like playing chopad.’
\end{verbatim}
Conclusion

- We investigated a puzzle in terms of an unexpected argument frame found in a complex predication.
- We pursued an explanation from the perspective of an event-based linking as articulated in Schätzle (2018) and Beck and Butt (2023) and show how this can account for the argument mapping found with seeing/hearing+give.
- In sum, we hope to have shown that the reconceptualization of LFG’s Mapping Theory in terms of an event-based approach to the licensing of event participants at argument structure allows for an insightful way of accounting for our puzzle.
Acknowledgements

Thank You!

We would like to thank Rajesh Bhatt for some interesting discussions and pointers, Shahina Butt for an interesting piece of data and observations and the audience at the Syntax Colloquium at the University of Konstanz for a very nice round of comments in a first version of this talk.
References I


