On backward and forward binding in experiencer constructions

György Rákosi
http://ieas.unideb.hu/rakosi
http://nevmasblog.wordpress.com

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Theoretical and Empirical Perspectives
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1. **aims and claims**

- “... experiencer-objects have been shown to display non-canonical object properties (or even subject properties) concerning word order, binding and scopal relations, clitic doubling, etc.”

- **aims:**
  - focus on stative object experiencer verbs and dative experiencer verbs, which have been argued to be the core locus of psych-behaviour (see Pesetsky 1995, Landau 2010, and Verhoeven 2014 for overviews)
  - revisiting binding data - often questioned or dismissed as non-reliable: “... *backward binding perhaps should be more aptly called a pseudo-psych-property* ...” (Landau 2010: 65)
  - focus on Hungarian data, mostly collected from the Hungarian National Corpus (Váradi 2002) and the web
1. **aims and claims**

stative object experiencer verb
forward binding: NOM > ACC/DAT

(1) Én nem érdekl-em magam-at.
I.NOM not interest-1SG myself-ACC
‘I do not care about myself.’

dative experiencer verb
backward binding: ACC/DAT > NOM

(2) Hogy tetszik neki önmaga!
how appeals DAT.3SG himself.NOM
‘How he likes himself.’ *(baby watching his mirror image)*
1. **aims and claims**

claims:

- *true binding* data are reliable indicators of underlying structural relations in the psych-domain, too assuming the logical-syntax based definition of argument-binding of Reinhart (2006), which entails c-command between binder and bindee

- the two arguments of stative object experiencer verbs and datives show a symmetric behaviour - each can bind the other

- analysis in terms of the Theta System (Reinhart 2000, 2002)
  - these experiencer verbs are two-place unaccusatives (see also Pesetsky 1995 and Landau 2010)
  - the two arguments can be merged in either of the two respective base orders (see Preminger 2006, Horvath & Siloni To appear, Rákosi Submitted)
2. structure of the talk

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3. *experiencer verbs in Hungarian: syntax and binding*

- recent work on clause structure in Hungarian
  - Hungarian is configurational at the base
  - the base order is subject to scrambling (Surányi 2006a,b) or free linearisation due to phase flattening in the postverbal domain (É. Kiss 2008)
  - the left periphery is discourse configurational
- some remarks on coargument binding
  - coargument binding is determined at the base, and is not affected by A- or A'-movements (i.e., bindee > binder surface order is grammatical in the coargument domain)
  - unless they carry discourse functions, subject and object pronouns are regularly *pro*-dropped (with no affect on coargument binding relations)
3. *experiencer verbs in Hungarian: the universal scene*

- object experiencers are subject to aspectual variation
  - **strongly stative**: *interest/depress*
  - neutral: *frighten, worry*
  - strongly eventive: *shock, surprise*
- **stative ACC/DAT** experiencer verbs are
  - non-agentive (and no external argument)
  - non-dynamic/non-eventive
  - stage-level predicates (see Marín & McNally 2011, Fábregas & Marín To appear)
3. **experiencer verbs in Hungarian**

strongly stative object experiencers:

(3)  *aggaszt* ‘worries’, *érdekel* ‘interests’, *vonz* ‘attracts’, etc.

dative experiencers (see Rákosi 2006 for an overview):

(4)  *nem akaródzik* ‘does not feel like’, *bejön* ‘likes’ or ‘works well for’, *derogál* ‘it is beneath one’s dignity’, *jól/rosszul esik* ‘feels good/bad’, *imponál* ‘impresses’, *sikerül* ‘succeeds’, *tetszik* ‘appeals’, etc.

contrastive minimal pairs:

(5)  subject experiencers:  
     *szeret* ‘likes’

(6)  non-stative OE:  
     *bosszant* ‘annoys’

(7)  agentive/causative dative:  
     *segít* ‘helps’
Productive causative morphology in Hungarian (see Bartos 2011 and Horvath & Siloni 2011 for two different approaches):

- V+ -(t)Vt
- *input*: verbs with external arguments

(8) a. *János* vacsorá-t főz.  
    John.NOM dinner-ACC cooks  
    ‘John cooks dinner.’

    b. *Kati* vacsorá-t főz-et *János*-sal.  
    Kate.NOM dinner-ACC cook-CAUS.3SG John-with  
    ‘Kate gets John to cook dinner.’

(9) a. *János* szeret-i az olvasás-t.  
    John.NOM like-3SG the reading-ACC  
    ‘John likes reading.’

    Kate.NOM PRT-like-CAUS-3SG the reading-ACC John-with  
    ‘Kate gets John to like reading.’
3. **experiencer verbs in Hungarian: causatives**

agentive/eventive object experiencer verbs

(10) *Nero a szolgái-val bosszant-tat-ta az anyjá-t.*

Nero the servants.Poss.3SG-with annoy-Caus-Past.3SG the mother-Poss.3SG-Acc

‘Nero got his servants to annoy his mother.’

stative object experiencer verbs

(11) *Nero a szolgái-val aggaszt-tat-ta az anyjá-t.*

Nero the servants.Poss.3SG-with worry-Caus-Past.3SG the mother-Poss.3SG-Acc

‘Nero got his servants to worry his mother.’

dative experiencer verbs

(12) *Nero a szolgái-t tetsz-et-te az anyjá-nak.*

Nero the servants.Poss.3SG-Acc appeal-Caus-Past.3SG the mother-Poss.3SG-Dat

‘*Nero got his servants to appeal to his mother.’
3. *experiencer verbs in Hungarian: telic particles*

- verbal particles are regularly employed in Hungarian to telicize verbs
- most subject experiencers can combine with telic particles (13, see also Eszes 2008), and eventive object experiencers can also take them (14)

(13) \( \text{János} \ 1 \text{perc alatt} \ meg-szeret-te \ az \ olvasás-t. \)
John.NOM 1 min. under PRT-like-past.3SG the reading-ACC
‘John got to like reading in a minute.’

(14) \( \text{János} \ 1 \text{perc alatt} \ fel-bosszant-otta \ Kati-t. \)
John.NOM 1 min. under PRT-annoy-past.3SG Kate-ACC
‘John annoyed Kate up in a minute.’
3. **experiencer verbs in Hungarian: telic particles**

- stative object experiencer verbs do not take such particles:
  
  (15) a. *meg-aggaszt* ‘PRT-worries’
  
  b. *meg-érdekel* ‘PRT-interests’

- dative experiencer verbs are aspectually more varied
  
  (16) a. *meg-imponál* ‘PRT-impresses’
  
  b. *János-nak 1 percig be-jött Kati.*
  
  John-DAT 1 minute.for in-came Kate.NOM
  ‘John liked Kate for a minute.’

  c. *János-nak 1 perc alatt meg-tetszett Kati.*
  
  John-DAT 1 minute under PRT-appealed Kate.NOM
  ‘John got to like Kate in a minute.’
3. *experiencer verbs in Hungarian: dynamic modification*

- incompatibility with adverbials modifying the dynamic aspect of an event/activity

(17) *Kati egyre csak bosszantotta János-t.*
Kate.NOM continually annoyed John-ACC
‘Kate was continually annoying John.’

(18) *Kati egyre csak érdekelte János-t.*
Kate.NOM continually interested John-ACC
‘*Kate was continually interesting John.’

(19) *Kati egyre csak tetszett János-nak.*
Kate.NOM continually interested John-DAT
‘*Kate was continually appealing to John.’
3. *experiencer verbs in Hungarian: summary*

- stative object experiencer verbs and dative experiencer verbs in Hungarian
  - lack external arguments (and have no agentive uses)
  - are incompatible with dynamic modification
  - typically do not combine with telic particles (though the dative class is more varied in this respect)
4. binding data: forward binding

- no uniform agreement on the judgements, but tendencies are noted in the literature
  - the more stative the predicate, the worse forward binding is in English (see Landau 2010 for an overview, (20a) from Jackendoff and Cullicover 2005)
  - reciprocals give better results than reflexives (Roberts 1991, see (21a,b))
  - complex reflexives are better than monomorphemic ones (*si vs ?* se stesso, see Belletti & Rizzi 1988)

(20)  a. ??John appeals to himself.
       b. How can I stop annoying myself?

(21)  a. ??John irritates himself.
       b. We irritate each other.
4. **binding data: forward binding**

- thematic/structural asymmetry
- conceptual issues (Jackendoff 1991, Jackendoff & Cullicover 2005), cf. their Mme Tussaud example:

(22) *Ringo fell on himself.*

(i) ‘The actual Ringo fell on the statue of Ringo.’
(ii) *‘The statue of Ringo fell on the actual Ringo.’

(23) a. *I'm so in love I'm annoying myself.*

b. *The children are annoying each other and behaving badly.*
4. **binding data: forward binding**

the Hungarian scene

- *dative experiencers:*
  
  forward binding is not degraded (É. Kiss 1994b, Rákosi 2006)

- *stative object experiencers:*
  
  variable judgements for forward reflexive binding (V/? /??/*), but better judgements on the whole than in English (É. Kiss 1987, 1991, 1994a,b, 2002; Kenesei et. al 1998, Rákosi Submitted)
4. **binding data: forward binding**

- two reflexives (see Rákosi 2009, 2011, 2013)
  - *maga* ‘himself’
    - historically a possessive body part reflexive
    - functions roughly like English *himself*
  - *önmaga* ‘himself’
    - the basic reflexive plus the prefix *ön*- 'self'
    - more nominal structure (e.g.: possibility of modification)
    - increased referentiality
    
      \[
      \text{(24) \ Újra *\((ön\)magam vagyok.} \\
      \text{again myself am} \\
      \text{‘I am myself again (i.e., what I used to be).’}
      \]

- fully grammatical forward binding data are available on closer inspection
4. *binding data: forward binding*

(25) *Kati tetszik (ön)magá-nak.*
Kate.NOM appeals herself-DAT
‘Kate appeals to herself.’

(26) *Én nem érdekl-em (ön)magam-at.*
l.NOM not interest-1SG myself-ACC
‘I do not care about myself.’

(27) *Yet again, L, as a human, is suffering, but L, as a detective, may be happy.*
*És L, az ember, nem érdekli önmagá-t.*
and L.NOM the human.NOM not interests himself-ACC
‘And L, the human being, does not care about himself.’
4. **binding data: forward binding**

(28) *Mindenki* tetszik (ön)magá-nak.
   everybody.NOM appeals himself-DAT
   ‘Everybody appeals to himself.

(29) *Csak János* aggasztja (ön)magá-t.
   only John.NOM worries himself-ACC
   (i) ‘John is the only person who worries self.’ binding
   (ii) ‘John is the only person who worries John.’ coreference
4. binding data: backward binding

(30) *Hogy tetszik neki *(ön)maga!
how appeals DAT.3SG himself.NOM
‘How he likes himself.’ (baby watching his mirror image)

(31) Jobban érdekel *(ön)magam, mint bárki más.
better interests myself.NOM than anybody.NOM else
‘*Myself interests me better than anybody else.’

(33) *Hogy segít neki önmaga!
how helps DAT.3SG himself.NOM
‘*How himself helps him.’

(34) *János-t szándékosan bosszantja önmaga.
John-ACC on.purpose annoys himself.NOM
‘*Himself annoys John on purpose.’
4. binding data: backward binding

(35) Mindenki-nek tetszik önmaga.
    everybody-DAT appeals himself.NOM
    ‘*Himself appeals to everybody.’

(36) Csak János-t aggasztja önmaga.
    only John-ACC worries himself.NOM
    (i) ‘John is the only person who is worried by self.’ binding
    (ii) ‘John is the only person who is worried by John.’ coref.
4. **binding data: possessor binding**

- non-coargument binding is indeed not always a reliable indicator of underlying structural relations: possessor anaphora is often licensed by discourse factors (Pollard & Sag 1992, Reinhart & Reuland 1993, and subsequent literature)

- that logophoricity renders non-coargument backward binding data non-reliable has been pointed out by, a.o., Cançado & Franchi (1999) and Landau (2010)

- Hungarian:
  - reciprocal possessors seem to require c-command at the base (or at the surface, see É. Kiss 2008)
  - reflexive possessors are marked, logophoricity is one factor that licenses them (Rákosi To appear)
4. binding data: possessor binding

(37) *Egymás szülei* tetszenek *a gyerekek-nek.*
each other’s parents.NOM appeal the kids-DAT
‘Each other’s parents appeal to the kids.’

(38) *Egymás szülei-nek* tetszenek *a gyerekek.*
each other’s parents-DAT appeal the kids.NOM
‘The kids appeal to each other’s parents.’

(39) ??/* *Egymás szülei* segítenek *a gyerekek-nek.*
each other’s parents.NOM help the kids-DAT
‘??/* Each other’s parents help the kids.’

(40) *Egymás szülei-nek* segítenek *a gyerekek.*
each other’s parents-DAT help the kids.NOM
‘The kids help each other’s parents.’
4. binding data: possessor binding

(41) a. János szereti a feleség-ét.
John.NOM loves the wife-POSS.3SG.ACC
‘John loves his wife.’

b. János szereti a maga kis feleség-ét.
John.NOM loves the himself.NOM little wife-POSS.3SG.ACC
‘John loves his little wife.’

(42) a. János-nak tetszik a maga kis feleség-e.
John-DAT appeals the himself.NOM little wife-POSS.3SG.NOM
‘His little wife appeals to John.’

b. ??János tetszik a maga kis feleség-ének.
John.NOM appeals the himself.NOM little wife-POSS.3SG.DAT
‘John appeals to his little wife.’

→ (42) only attest to the logophoric nature of possessor reflexives, but it does not reflect an underlying structural difference
4. *binding data: summary*

- straightforward binding data provide support for the claim that both arguments of stative object experiencer verbs and dative experiencer verbs can asymmetrically c-command each other at the base in Hungarian
5. **Reinhart's analysis and Hungarian**

  - argument structure is lexically coded
  - two thematically relevant binary features:
    - [+/-c] (causally relevant)
    - [+/-m] (mentally involved)
  - the three types of experiencer predicates are thematically distinguished (*like*, *worry*, *appeal to*)
Given an n-place verb-entry, n> 1,
a. Mark a [−] cluster with index 2.
b. Mark a [+ ] cluster with index 1.
c. If the entry includes both a [+ ] cluster and a fully specified cluster [/α/− c], mark the verb with the ACC feature.

[+ ] clusters: [+c+m], [+c], [+m]
[− ] clusters: [−c−m], [−c], [−m]
[/α/− c] clusters: [−c+m], [−c−m]

Merging instructions
a. When nothing rules this out, merge externally.
b. An argument realizing a cluster marked 2 merges internally;
   An argument with a cluster marked 1 merges externally.
5. **Reinhart's analysis and Hungarian: dative experiencer verbs**

(45) \[ \text{appeal to} < [-c-m]_2 [-c]_2 > \]

\[ \begin{align*}
\text{a. } & \text{The picture}_{[-c-m]} \text{ appeals to her}_{[-c]}' \\
\text{b. } & \text{[VP to her}_{[-c]} \text{ [V', appeals the picture}_{[-c-m]} ]] \\
\end{align*} \]

- by (43a), both arguments receive the merging index 2
- thus by (44b), they are both merged internally (using a Landau-type structure, but nothing crucial hinges on that)
5. Reinhart's analysis and Hungarian: stative object experiencers

(46) \[ \text{worry} < [+c]_1 [-c+m]_{\text{ACC}} [-m]_2 > \]

a. \textit{His health} [-m] \textit{worries every patient} [-c+m].
b. \textit{VP every patient} [-c+m] \textit{[V, worries his health]} [-m].

- these verbs have three arguments, but the \textit{cause} [+c]_1 and the subject \textit{matter} [-m]_2 cannot be co-realized (see Pesetsky 1995)
- object experiencer constructions are of two sorts:

(47) a. ?? \textit{His doctor} [+c] \textit{worries every patient} [-c+m]. \textbf{causative}
b. \textit{His health} [-m] \textit{worries every patient} [-c+m]. \textbf{unaccusative}

- Reinhart (2002: 171): some (stative) object experiencers may have a \textit{frozen} cause argument, which cannot be syntactically realized (but does license the accusative case on the experiencer), compare \textit{inquiéter} and \textit{préoccuper} in French

see Fadlon (2012) for psycholinguistic evidence for the existence of frozen entries/roles
5. **Reinhart's analysis and Hungarian: summary**

- Hungarian stative object experiencers are like *préoccuper*: they do not realise a cause role in syntax, and they only have an unaccusative derivation.
- The two arguments of dative experiencer verbs are lexically specified to be internal.
- The two arguments of stative object experiencer verbs are lexically specified to be internal: the subject matter receives a merging index, the experiencer is accusative-marked (and experiencers are not quirky in Hungarian, see Rákosi 2006).

→ Since nothing in the Theta System dictates a specific merging order for the two internal arguments, they can be merged in either of the two possible base orders. See Preminger (2006) and Horvath & Siloni (To appear) for the general claim in Theta Theoretic work (as well as Fanselow 2001, 2003), and Rákosi (Submitted) on Hungarian experiencer constructions.
5. Summary and outlook

- Binding data support an analysis in which the two arguments of stative object experiencer verbs and dative experiencer verbs can be merged VP-internally in Hungarian in both of the possible base orders.
- This possibility naturally follows from the core assumptions of Reinhart's Theta System.
- The binding data also tie in well with topicalisation facts: each of the two arguments of these verbs is an equally likely candidate for topichood (see Temme & Verhoeven Submitted for experimental data and discussion, as well as É. Kiss 2005 and Rákosi 2006).
5. **Summary and outlook**

- but this sort of bidirectionality is not always attested in the relevant binding data in other languages ...

\[(48)\] a. *John appeals to himself.* (whatever the judgement)

   b. *Himself appeals to John.*

\[(49)\] a. *Tis Marias tis aresi o eaftos tis.*
   the Mary.DAT CL.DAT likes the self.NOM her
   ‘Mary likes herself.’

   b. *I Maria tu aresi tu eaftu tis.*
   the Mary.NOM CL.DAT likes the self.DAT her

(Landau 2010: 114, 155, quoting Anagnostopoulo 1999 & p.c.)
7. **references**


7. references


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