

# Recursion Restricted

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## 1 A distributional difference between caseless and dative possessors

- Hungarian DP-internal possessors oscillate between being caseless/‘nominative’ and dative

- (1) a. csak [a János könyve] érdekes  
only the János book.POSS interesting  
b. csak [János-nak a könyve] érdekes  
only János-DAT the book.POSS interesting  
both: ‘only János’s book is interesting’

- for the caseless possessor in (1a), a position between D (lexicalised as *a*) and the head noun is customarily postulated — ‘SpecPossP’ in (2a)  
[the label ‘PossP’ for us serves expository purposes only]
- for the dative possessor in (1b), it has been standard since Szabolcsi’s seminal work (see Szabolcsi 1983, 1994) to place it in SpecDP, as in (2b); we assume that Hungarian dative case is a preposition, so the dative possessor is included in a PP

- (2) a.  $[_{DP} D [_{PossP} POSSESSOR_{caseless} [Poss [POSSESSUM]]]]$   
b.  $[_{DP} [_{PP} P [POSSESSOR_{dative}]] [_{D} [_{PossP} [Poss [POSSESSUM]]]]]$

- while the alternation between (1a) and (1b) is generally free, there are restrictions that cause one of the two variants to be unavailable under specific circumstances
  - only (2a) yields a grammatical output when the possessor is a silent pronoun: (3)

- (3) a. [a *pro* könyvem] érdekes  
the book.1SG interesting  
‘my house is large’  
b. \*[[*pro* nekem] a könyvem] érdekes  
DAT.1SG the book.1SG interesting

- only (2b) has a grammatical output when the quantifier *ki* used as a relative pronoun, question word, or distributive quantifier: (4/5c–e)

- (4) a. mindenki könyve ‘everywho house.POSS, i.e., everyone’s book’  
b. valaki könyve ‘someone book.POSS, i.e., someone’s book’  
c. \*aki könyve ‘A.who book.POSS, i.e., whose book (RELATIVE)’  
d. \*ki könyve? ‘who book.POSS, i.e., whose book (INTERROGATIVE)’  
e. \*ki-ki könyve ‘who-who book.POSS, i.e., everyone’s book (DISTRIB)’

- (5) a. mindenkinek a könyve ‘everywho.DAT the book.POSS, i.e., everyone’s book’  
b. valakinek a könyve ‘someone.DAT the book.POSS, i.e., someone’s book’  
c. akinek a könyve ‘A.who.DAT the book.POSS, i.e., whose book (REL)’  
d. kinek a könyve? ‘who.DAT the book.POSS, i.e., whose book (INT)’  
e. kinek-kinek a könyve ‘who.DAT-who.DAT the book.POSS, i.e., everyone’s book (DIST)’

- the contrast between (4a,b) and (4c–e) suggests that *ki* is grammatical *per se* as a caseless ('nominative') possessor but that under certain circumstances it 'outgrows' the DP-internal caseless possessor position
- semantic definiteness is not a factor in this: (4a,b) do not form a natural class as opposed to (4c–e) in terms of semantic definiteness

- (6)
- a. Mari mindenkit \*(meg)talált  
Mari everyone.ACC PV found
  - b. Mari (meg)talált valakit  
Mari PV found someone.ACC
  - c. akit Mari (meg)talált  
A.who.ACC Mari PV found
  - d. kit talált (meg) Mari?  
who.ACC found PV Mari

- the restriction at work in (4) must be syntactic in nature

## 2 The central hypothesis

- what underlies the pattern in (4) is a restriction on self-embedding recursion structures

- (7) *restriction on recursion*  
a phasal category of type  $\alpha$  can be embedded in a phasal category of the same type where there is a c-command relation between the heads of the two instances of  $\alpha$  only if the two instances of  $\alpha$  are separated by a phase head

- this restriction is the counterpart of the c-command *cum* phasemate requirement imposed on deletion of identical copies of a single category under Internal Merge

- (8) *restriction on copy deletion*  
a phasal category of type  $\alpha$  can license the deletion of a phasal category of the same type where there is a c-command relation between the heads of the two instances of  $\alpha$  only if the two instances of  $\alpha$  are NOT separated by a phase head

- the restrictions in (7) and (8) are identical save for (a) the main predicate ('be embedded in' vs 'license the deletion of') and (b) the polarity of the conditional clause (positive in (7) and negative in (8))

- when two instances of a category  $\alpha$  are in a local structural configuration ('phasemate-hood'), the result is ungrammatical unless the lower instance of  $\alpha$  is invisible

- with (7) and (8) conceived of as a package, the recursion restriction does not rule out situations in which a *silent copy* of  $\alpha$  is embedded in a phasal category of the same type and there is no phase head in between

- movement can 'save' a case of local self-embedding

- this helps us understand the difference between (4c–e) and (5c–e)

### 3 The distribution of caseless and dative possessors explained

- in the structure of possessed noun phrases, there is no phase head between the possessed noun phrase's outer D-head and the phrase which harbours caseless possessors

- (9) a.  $[_{DP} D [_{POSSP} POSSESSOR_{caseless} [Poss [POSSESSUM]]]]$  (= (2))  
 b.  $[_{DP} [_{PP} P [POSSESSOR_{dative}]] [D [_{POSSP} [Poss [POSSESSUM]]]]]$

- the combination of (7), (8) and (9) delivers the pattern in (4)–(5)
  - for (5), the size of the possessor is immaterial: the D-head of the possessed DP and the D-head of the dative possessor embedded inside the PP in SpecDP are not in a c-command relation, so dative possessors as large as full DPs cause no violation of (7) — regardless of whether they are base-generated in SpecDP or bind a silent copy in the c-command domain of the possessum's D-head
  - for (4), size matters

#### 3.1 Relative *aki* as a possessor

- in (4c), *a* (formally identical with the definite article) in the relative pronoun *aki* indicates that the relative pronoun is as large as a DP
- the ungrammaticality of *\*aki könyve* (4c) follows from (7): see (10a)

- (10) a.  $*[_{DP} D [_{POSSP} [_{DP} a- [_{QP} ki]]] [Poss=-e [_{NP} könyv]]]]$   
 b.  $[_{DP} [_{PP} P [_{DP} a- [_{QP} kinek]]] [D [_{POSSP} Poss=-e [_{NP} könyv]]]]]$

- (11) does not conflict with the hypothesis that *aki* in (4c) is a DP

- (11) valaki akit szeretek/\*szeretem  
 someone A.who.ACC love.1SG.INDEF/\*DEF  
 'someone I love'

- two possible approaches:
  - (a) *a-*, which occurs at the left edge of the relative clause, first tries to combine with the relative clause as a whole; only when that fails does it form a constituent with the relative pronoun
  - (b) DP-objects do not always control DEF inflection

re: (a) cf. Kayne's (1994) update of Vergnaud's raising analysis of relative clause constructions

- (12)  $[_{DP} valaki [D=a- [_{CP} kit_i [C [_{TP} szeretek t_i]]]]]$

- relative *a-* is a prefix, hence needs to be able to form a unit with the *wh*-operator in the left periphery of the relative CP
- on the assumption that the left edge of CP is visible to D, this is unproblematic in the case of (12)
- but if *a-* were a D-head outside the relative CP in (4c) or (5c), no unit could be formed out of *a-* and *ki(nek)*

(13)  $*[{}_{\text{DP}} \textit{valaki} [D=a- [{}_{\text{CP}} [{}_{\text{DP}} \textit{ki}(\textit{nek}) \textit{könyve}]_i [C [{}_{\text{TP}} \dots t_i \dots]]]]]$

- with (13) ill-formed, the first-resort strategy of treating relative *a-* as a D-head outside the relative clause must be abandoned
- *a-* must instead be mapped into a minimal constituent with the relative pronoun *ki(nek)*
- for (5c), this delivers a grammatical result; for (4c), placing the DP of *aki* in the caseless possessor position inside a larger DP, as in (10a), violates the recursion restriction

re: (b) Coppock: the cluster of facts in (14) and (15) poses a problem for the DP-hood approach

(14) a. *eltitkolom* *valamennyi* *találkozást*  
 keep.secret.1SG.DEF each meeting.ACC  
 b. *eltitkolok* *minden* *találkozást*  
 keep.secret.1SG.INDEF each meeting.ACC  
 ‘I keep each/every meeting a secret’

(15) a. *a* *Mari* {*valamennyi/minden*} *könyve*  
 the *Mari* each/every book.POSS  
 ‘Mari’s every book’  
 b. (\*a) {*valamennyi/minden*} *könyv(e)*  
 the each/every book.POSS  
 ‘(her) every book’

- if one wants to uphold the DP-hood approach by maintaining that *valamennyi találkozást* in (14a) is not a DP while *minden találkozást* in (14b) is, the fact that inside the DP the two quantifiers behave alike (see (15)) remains mysterious

### 3.2 Interrogative *ki* as a possessor

- in (4d), the [+WH] feature of *ki* is represented in D — ‘typing’ features are located on phase heads
- (16a) violates (7)

(16) a.  $*[{}_{\text{DP}} D [{}_{\text{POSSP}} [{}_{\text{DP}} [+WH] [{}_{\text{QP}} \textit{ki}]] [{}_{\text{POSS}}=-e [{}_{\text{NP}} \textit{könyv}]]]]]$   
 b.  $[{}_{\text{DP}} [{}_{\text{PP}} P [{}_{\text{DP}} [+WH] [{}_{\text{QP}} \textit{kinek}]]] [D [{}_{\text{POSSP}} \textit{Poss}=-e [{}_{\text{NP}} \textit{könyv}]]]]]$

- the definiteness agreement facts in (17) can be approached in the same way as the ones in (11)

(17) *kit* *szeretsz/\*szereted?*  
 who.ACC love.2SG.INDEF/\*DEF  
 ‘who do you love?’

3.3 Distributive *ki-ki* as a possessor

- in (4e), reduplication of *ki* involves two instances of *ki*, one of them in the DP domain
- we tie the phonology and semantics of *ki-ki* together by representing *ki*, the bare quantifier (which is not itself distributive), in two positions in the complex noun phrase that it is dominated by:
  - (a) inside a DistP generated in the specifier position of DP, and
  - (b) in the complement of D

(18)  $[_{DP} [_{DistP} Dist [_{QP} ki]_i] [D [_{QP} ki]_i]]$

- we place DistP in (18) in SpecDP because the left periphery of the noun phrase is much reduced compared to that of clauses

(19) a. whose constant claims that John was harassing Mary  
 b. \*who constant claims that John was harassing *t*

(20) a. János megoldta a gondját  
 János PV.solve.PST.DEF the problem.POSS.ACC  
 ‘János solved his problem’  
 b. csak az Ő gondját oldta meg  
 only the he problem.POSS.ACC solve.PST.DEF PV  
 ‘only HIS problem did he solve’

(21) a. a gond megoldása  
 the problem PV.solve.NML.POSS  
 b. a gondnak a megoldása  
 the problem.DAT the PV.solution.POSS  
 both: ‘the problem’s solution’  
 c. \*csak a GOND oldása meg  
 only the problem solution.POSS PV  
 d. \*csak a GONDnak az oldása meg  
 only the problem.DAT the solution.POSS PV  
 (intended) ‘only the solution of the PROBLEM’

(22) a. le sue lunghe trecce bionde (Italian; Giusti 2006)  
 the her long tresses blonde  
 ‘her long blonde tresses’  
 b. le lunghe sue trecce bionde → *lunghe* = contrastive topic  
 the long her tresses blonde

- with the DistP portion of *ki-ki* located in SpecDP, it follows that the structure of distributive *ki-ki* is necessarily as large as a DP
- (23a) violates (7)

(23) a. \* $[_{DP} D [_{PossP} [_{DP} [_{DistP} Dist [_{QP} ki]_i] [D [_{QP} ki]_i]] [Poss=-e [_{NP} könyv]]]]$   
 b.  $[_{DP} [_{PP} P [_{DP} [_{DistP} Dist [_{QP} ki]_i] [D [_{QP} ki]_i]]] [D [_{PossP} Poss=-e [_{NP} könyv]]]]$

### 3.4 Universal *mindenki* and existential *valaki* as possessors

- the grammaticality of (4a,b) indicates that *mindenki* and *valaki* are smaller than DP
- we treat *vala-* and *minden-* as modifiers of *ki*, adjoined to the QP of *ki*, as in (24)

(24)  $[_{QP} \{vala-, minden-\} [_{QP} ki]]$

- Bende-Farkas (2014:110) shows that *mind* was not inherently distributive in Old Hungarian, and still is not at present; but *minden*, while not inherently distributive in Old Hungarian either, is generally taken to be a distributive quantifier in current Hungarian
- yet even today, *minden* can combine with mass nouns, such as *arany* ‘gold’ in (25) (Bende-Farkas 2014:110, fn. 19)

(25) kibányásztak minden aranyat  
 PV.mine.PST.3PL every gold.ACC  
 ‘all (the) gold has been excavated’

- (25) suggests that present-day Hungarian *minden* is not inherently distributive
- the conservative position to take is not to attribute inherent distributivity to *minden*, and to derive the fact that it overwhelmingly delivers distributivity from its external-syntactic distribution

- reduplicative *ki-ki* IS inherently distributive, as reflected in the structure in (18)
- with *minden* not treated as a distributive quantifier, hence not placed in SpecDP, we can understand the grammaticality of (4a): (26a) does not violate (7)

(26) a.  $[_{DP} D [_{POSSP} [_{QP} minden- [_{QP} ki]]] [_{POSS=-e} [_{NP} könyv]]]$   
 b.  $[_{DP} [_{PP} P [_{QP} minden- [_{QP} ki]]] [_{D} [_{POSSP} POSS=-e [_{NP} könyv]]]]]$

- for *valaki*, there is even less reason to think that its structure might be as large as a DP
- the grammaticality of (4b) follows: (27a) does not violate (7)

(27) a.  $[_{DP} D [_{POSSP} [_{QP} vala- [_{QP} ki]]] [_{POSS=-e} [_{NP} könyv]]]$   
 b.  $[_{DP} [_{PP} P [_{QP} vala- [_{QP} ki]]] [_{D} [_{POSSP} POSS=-e [_{NP} könyv]]]]]$

ERGO all and only those *ki*-form possessors that are necessarily as large as DP are barred, by (7), from the caseless possessor position in the c-command domain of the D-head of the possessed noun phrase

## 4 Possessed possessors

- the recursion restriction in (7) also explains the fact that when a possessor is itself a possessed noun phrase, it usually cannot be caseless but must be dative-marked instead

(28) a. \*[[János kalapja] széle]  
 János hat.POSS rim.POSS  
 b. \*[[Jánosnak a kalapja] széle]  
 János.DAT the hat.POSS rim.POSS

- c. [[János kalapjának] a széle]  
 János hat.POSS.DAT the rim.POSS
- d. [[Jánosnak a kalapjának] a széle]  
 János.DAT the hat.POSS.DAT the rim.POSS  
 ‘the rim of János’ hat’

→ Hungarian possessed noun phrases with a common-noun or proper-name possessor are always of category DP, triggering definite agreement on the verb, even when their possessor and possessum are both indefinite (Bartos 1999, É. Kiss 2004)

- (29) csak [egy diáknak két dolgozatát] találta/\*talált  
 only one student.DAT two paper.POSS.ACC found.3SG.DEF/\*INDEF  
 jutalomra méltónak a zsűri  
 prize.to worthy the jury  
 ‘the jury found only one student’s two papers worthy of a prize’

→ *János kalapja* ‘János’ hat’ in (28a) must be dominated by a DP node  
 → *Jánosnak a kalapja* in (28b) is visibly a DP  
 → by (7), *János kalapja* and *Jánosnak a kalapja* are barred from being in the caseless possessor position: the recursion restriction takes care of the ungrammaticality of (28a,b)

- it is not true that when a possessed noun phrase in turn serves as the possessor of a larger noun phrase, it can *never* be caseless/‘nominative’
  - when the internal possessor is non-third person, it freely allows its possessed noun phrase to serve as a caseless possessor: (30)
  - when the possessor is third person, caseless possessed possessors are grammatical
    - in the singular if the internal possessor is pro-dropped: (31a,b)
    - in the plural even in the presence of an overt pronoun: (31c)

- (30) a. a(z én) kalapom széle  
 the I hat.1SG rim.POSS
- b. a (te) kalapod széle  
 the you hat.2SG rim.POSS
- c. a (mi) kalapunk széle  
 the we hat.1PL rim.POSS
- d. a (ti) kalapotok széle  
 the I hat.2PL rim.POSS

- (31) a. a(\*z ő) kalapja széle  
 the (s)he hat.POSS rim.POSS
- b. a(\*z Ön) kalapja széle  
 the You hat.POSS rim.POSS
- c. a(z ő) kalapjuk széle  
 the (s)he hat.POSS.3PL rim.POSS

- (32) mindannyiunk egészsége érdekében  
 everyone.1PL health.POSS interest.POSS.INESS  
 ‘in the interest of the health of all of us’

- **descriptive generalisation** for **non-pro-drop** cases: when *kalap* bears  $\phi$ -feature inflection (as in (30) and (31c)), its projection can serve as the caseless possessor of a larger possessed noun phrase; when it does not, it cannot

- (33)
- a.  $[_{\text{PossP}} \text{POSSESSOR}_{[\phi]} [_{\text{Poss}}_{[\phi]} [\text{POSSESSUM}]]]$
  - b.  $[_{\text{DP}} \text{D} [_{\text{PossP}} \text{POSSESSOR} [_{\text{Poss}} [\text{POSSESSUM}]]]]]$
  - c.  $*[_{\text{PossP}} \text{POSSESSOR} [_{\text{Poss}} [\text{POSSESSUM}]]]$  (\* if merged with an external X)

→ (33) reminds us of Chomsky’s (2014) ‘problems of projection’

- an XP–YP structure cannot be labelled ‘from within’ unless XP and YP share a common set of features thanks to agreement, with the shared features serving as the label
- in (33a), the shared  $\phi$ -features of the possessor in SpecPossP and the Poss-head allow the XP–YP structure to be labelled, by  $\phi$

- when there is no  $\phi$ -agreement between the possessor and Poss, the XP–YP structure (‘PossP’) cannot be labelled from within
- it must rely for its licensing on a local dependency between it and an external head that is part of the same *extended projection*
- for PossP, the D-head serves this purpose
- absent  $\phi$ -agreement between the possessor and the Poss-head, a DP must be erected on top of PossP: (33b) is grammatical and suitable for further application of Merge; (33c) is unusable as a dependent in a larger syntactic structure

- (31a,b) vs (31c) now follows as an effect of the distribution of  $\phi$ -feature agreement
  - the PossP of *kalapjuk* ‘their hat’ in (31c) can be labelled by  $\phi$ , and merged directly as the possessor of *szél*, as in (34)
  - (34) obeys (7): (31c) is grammatical

- (34)  $[_{\text{DP}} \text{D}=a(z) [_{\text{PossP1}} [_{\text{PossP2}} \text{POSS’OR}_{[\phi]} [_{\text{Poss2}}_{[\phi]} [\text{POSS’UM}]]]] [_{\text{Poss1}} [\text{POSS’UM}]]]]]$

- the PossP of *kalapja* ‘his/her/Your hat’ bears no  $\phi$ -features cross-referencing those of the possessor (*-ja* is a ‘bare’ possessive marker, not marked for  $\phi$ )
- this PossP cannot be merged externally: (35a) is ungrammatical
- a DP must be erected on top of PossP to complete the extended projection *before* the possessed noun phrase can be merged as the possessor of *szél* ‘rim’
- (35b) violates (7): (31a,b) with overt pronouns are ungrammatical

- (35)
- a.  $*[_{\text{DP}} \text{D}=a(z) [_{\text{PossP1}} [_{\text{PossP2}} \text{POSS’OR} [_{\text{Poss2}} [\text{POSS’UM}]]]] [_{\text{Poss1}} [\text{POSS’UM}]]]]]$
  - b.  $*[_{\text{DP}} \text{D}=a(z) [_{\text{PossP1}} [_{\text{DP}} \text{D} [_{\text{PossP2}} \text{POSS’OR} [_{\text{Poss2}} [\text{POSS’UM}]]]]]] [_{\text{Poss1}} [\text{POSS’UM}]]]]]$

- Q how come (31a,b) are grammatical with pro-drop?
- these cases have a structure different from those in (35) — a simpler structure, not containing a PossP2 at all
  - *radical* pro-drop

- (36)  $[_{\text{DP}} \text{D}=a [_{\text{PossP}} [_{\text{xNP}} \textit{kalapja}] [_{\text{Poss}} [\textit{szél}]]]]]$



## 5 An interlude on number recursion

- a plural noun phrase serves as the possessor of a plural possessum: (37)

(37) a gyerekek kalapjai  
 the child.PL hat.POSS.PL  
 ‘the children’s hats’

- logically speaking, there are two possibilities for the location of the NumP belonging to the possessum *vis-à-vis* the NumP of the caseless possessor: (38a,b)

(38) a.  $[_{DP} a [_{NumP} -i [_{PossP} [_{NumP} gyerekek] [-ja [kalap]]]]]$   
 b.  $[_{DP} a [_{PossP} [_{NumP} gyerekek] [-ja [_{NumP} -i [kalap]]]]]$

→ (38a) presents a NumP recursion configuration; (38b) does not

- arguably, the number of the possessum is structurally represented close to the possessum, *à la* (38b)

(39) a. az én két könyvem  
 the I two book.1SG  
 ‘my two books’  
 b. \*a két én könyvem  
 the two I book.1SG

- but even if (38a) should be the right structure, (7) remains unviolated
- the recursion restriction applies specifically to a *phasal* constituent of category  $\alpha$  embedded in a larger phase of category  $\alpha$
- NumP is not a phase
- the NumP-over-NumP structure in (38a) does not feature a phasal category  $\alpha$  locally embedded in a tautocategorial phase

## 6 Demonstrative possessors

- what we said about (4)–(5) carries over to the contrast in (40)<sup>1</sup>

(40) a. \*ez könyve  
 this book.POSS  
 b. ennek a könyve  
 this.DAT the book.POSS  
 ‘the book of this’

<sup>1</sup> A reviewer for ICSH12 points out that (i) is grammatical (for some speakers), in contrast to (40a), which is universally rejected. Bartos (1999) mentions this contrast in his dissertation, but has no account for it. We suspect that there may be a link between the (40a)~(i) contrast and the (31a)~(31c) contrast presented in section 4. Beyond this suspicion, however, we do not have an explanation for the contrast between (40a) and (i) at this time.

(i) %ezek könyve  
 this.PL book.POSS

- Dékány (2011): Hungarian free-standing demonstratives are portmanteaux of N, Dx (a deixis head) and D
  - when a demonstrative is used independently (i.e., *ez* by itself), there is a silent nominal head that *ez* combines with, and this silent head needs licensing by D
  - independently used demonstratives always require D to be projected, in order for their silent N-head to be licensed
  - (40a) violates (7)
  
  - Hungarian case-concordial demonstratives in adnominal position are also base-merged as full DPs in a position c-commanded by D and not separated from D by a phase head
  - case-concordial demonstratives must raise to SpecDP to avoid violating (7)
- (41) a.     *ezt*     a     *könyvet*  
           this.ACC the book.ACC  
       b.     \**az* *ezt*     *könyvet*  
           the this.ACC book.ACC
- demonstratives belong to the DxP portion of the structure of the extended noun phrase in (42b) (paralleling the structure of the clause in (42a); Den Dikken 2010)
  - Hungarian case-concordial demonstratives are phrasal: they originate in SpecDxP
  - if they stay there, as full-blown DPs immediately embedded below D, they violate the recursion restriction in (7)
- (42) a.     [<sub>CP</sub> C [<sub>DxP</sub> Dx ( $\approx$ T) [<sub>AspP</sub> Asp            [<sub>VP</sub> V]]]]  
       b.     [<sub>DP</sub> D [<sub>DxP</sub> Dx            [<sub>AspP</sub> Asp ( $\approx$ Num) [<sub>NP</sub> N]]]]
- DxP is strictly dependent on D (or C): DxP cannot survive without a local D (or C)
  - whenever an extended noun phrase contains a demonstrative, it must be as large as a DP
  - a phrasal case-concordial demonstrative must raise out of D's c-command domain to avert a violation of (7)
  - independently, we know about occupancy of SpecDP in Hungarian that it requires the presence of an overt determiner in the D-head: (43)
- (43)            *Jánosnak* \*(a) *könyve*  
                   *János*.DAT the book.POSS
- the ungrammaticality of (44a) now follows: there is a D-head locally c-commanding the DP of *ezt* in SpecDxP; so *ezt* must raise; but there is no legitimate landing-site for *ezt* in (44a) because silent D does not accommodate a specifier for movement in Hungarian
- (44) a.     \**ezt*     *könyvet*  
           this.ACC book.ACC  
       b.     *e/eme* *könyvet*  
           this     book.ACC
- the non-case-concordial demonstratives in (44b) never occur in pre-determiner positions and do not have free-standing, independent uses; they have no phrasal distribution
  - they are exponents of the Dx-head in the extended projection of the noun (cf. (42b))

- non-case-concordial demonstratives are also dominated by a DP: DxP cannot survive without a local D
- for non-case-concordial demonstratives, the DP that dominates them is simply the DP of the entire complex noun phrase
- (43b) does not violate (7)
- case concord is tied to phrasality
- in the complex noun phrase, only the nominal core and the D-head are specified for case
- other elements inside the complex noun phrase that bear a case morpheme formally matching that of D and N must have obtained case via concord
- predication relations routinely give rise to case concord
- the phrasal demonstrative in SpecDxP is a predicate of the NumP in the complement of the Dx, which is in possession of a case feature

(45)  $[_{DP} D_{[accase]} [_{DxP} \text{CASE-CONCORDIAL DEM}_{[accase]} [Dx [_{NumP[accase]} \dots ]]]]$

- case concord for demonstratives is an instance of case concord under predication
- non-case-concordial demonstratives are Dx-heads, not themselves in a predication relation with the nominal core, hence not in a concord relationship with it either
- case concord is the reflex of a relation between two phrases; heads show no case concord (see the fact that Hungarian the definite and indefinite articles are case-invariant)
- the fact that (41a) features case concord shows that *ezt*, the case-concordial demonstrative, is phrasal
- the phrasality of *ezt* explains why (41a) is grammatical while (41b) and (43a) are not

## 7 Noun-phrase internal predication

- another case of noun-phrase internal predication: the Qualitative Binominal Noun Phrase (QBNP) construction (Den Dikken 2006), attested in both English and Hungarian

(46) a. an idiot of a doctor  
 b. a wonder of a day

(47) a. hülye egy orvos  
 idiot a doctor  
 b. csoda egy nap  
 wonder a day

- b-type ‘comparative QBNPs’ (Den Dikken 2006) are derived via PREDICATE INVERSION

(48)  $[_{DP} D \dots [_{FP} \text{PREDICATE} [F+\text{RELATOR} [_{RP} \text{SUBJECT} [\text{RELATOR} [\text{PREDICATE}]]]]]]]$

<i>wonder</i>	<i>day</i>
<i>csoda</i>	<i>nap</i>

- phase-extending movement of the RELATOR to F might be expected to shield the *in situ* subject of the small clause (*day*, *nap*) from the D-head of the complex DP — but: \*(49)

- (49) a. \*that idiot of the doctor  
 b. \*az a csoda egy a nap  
     that the wonder a the day

→ head movement does not stop at the LINKER: it continues all the way up to D, extending the single phase to DP, and turning D and the subject into phasemates

- (50) \*a csoda egy nap  
     the wonder a day

## 8 On the external definite article of possessed noun phrases

- for (51), with the possessor in SpecPossP below D, (7) requires that the definite article *the* NOT form a constituent with *man*
- *the* in (51) must be the exponent of the outer D-head

- (51) the man's coat

- the non-constituency of *the man* predicts its non-extractability

- (52) a. \*the man is easy to find 's coat  
 b. \*the man was slept in 's bed by a famous actress

- the possessor should logically be able to strand the genitival marker
- even if (53) (Kayne, Radford) involves extraction with stranding of the genitival marker, this is still irrelevant to the question of whether *the* and *man* in (51) form a constituent
- (53) involves just the bare *wh*-word *who*, whereas (51) features the string *the man*
- there are no reported cases in which strings of a definite article or *which* and a head noun serving as a possessor occur separated from the genitival 's and the possessum
- if such strings are good, they can be assimilated to (54) (Jespersen 1927), via resumption
- if such strings are bad, they pattern with (52), for which resumption is not available, for independent reasons: no resumption in *tough*-movement or NP-raising constructions
- the ungrammaticality of (52) confirms that *the man* in (51) is not a constituent, as predicted by the recursion restriction in (7)

- (53) a. the woman who I saw a picture of 's daughter  
 b. that's the guy who I think 's sister is the lead singer in a new band
- (54) the fellow who you don't know his name

- the placement in the outer D-head of the definite article immediately preceding the possessor also accounts for the fact that *the man's coat* in (51) is outwardly definite: cf. (55)

- (55) a. there is {a/\*the} man's coat on the chair  
 b. there is {a/\*the} coat on the chair