

More comparatives than you can shake a stick at: The case of Greek

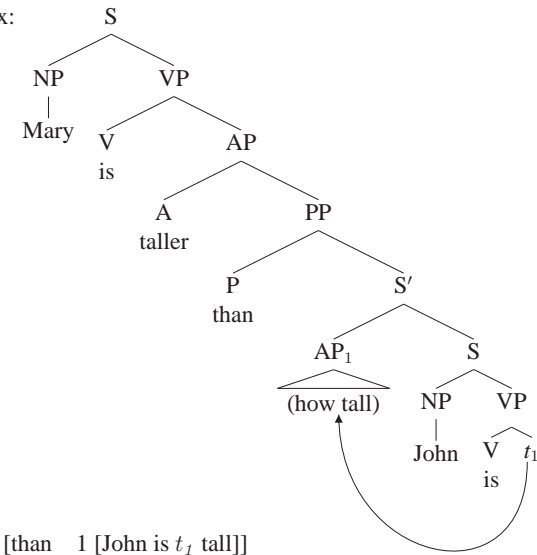
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2 Clausal and phrasal comparatives in English

- (5) **Clausal** comparatives (what follows *than* is clausoid): *than* is a preposition that takes a clausal node (CP, S') as its complement:
 - a. Mary plays the guitar better than [_{clause} John plays the guitar].
 - b. More people live in Russia than [_{clause} live in the US].
 - c. In the 2000 presidential election in Florida, more people₁ thought they₁ voted for Gore than [_{clause} thought they voted for Bush].
 - d. Mary is taller than [_{clause} John is].

- (6) Classical syntax:



- (7) a. LF: [-er [than 1 [John is t_1 tall]]
1 [Mary is t_1 tall]]
- b. $\max(\lambda d. \text{Mary is } d\text{-tall}) > \max(\lambda d. \text{John is } d\text{-tall}) =$
Height(Mary) > Height(John)
“The largest degree of height that Mary reaches exceeds the largest degree of height that John reaches”
- (8) The ‘classical’ analysis: von Stechow 1984, Kennedy 1999, etc; here in Beck 2010’s version:
 - a. $\llbracket -er^2 \rrbracket = \lambda D_{\langle dt \rangle} \lambda D'_{\langle dt \rangle} [\max(D) > \max(D')]$
 - b. $\llbracket tall \rrbracket_{\langle d, \langle e, t \rangle \rangle} = \lambda d \lambda x [x \text{ is } d\text{-tall}]$
 - c. Let S be a set ordered by R .
Then $\max_R(S) = \iota s [s \in S \wedge \forall s' \in S [sRs']]$
- (9) a. $\max(\lambda d [\text{Mary plays the guitar } d\text{-well}]) > \max(\lambda d' [\text{John plays the guitar } d'\text{-well}])$
- b. $\max(\lambda d [d\text{-many people live in Russia}]) > \max(\lambda d' [d'\text{-many people live in the US}])$

1 Inaudible syntax $\rightarrow \neg$ Surfacing

- (1) *Inaudible syntax* consists of nodes in a phrase marker which may not correspond to any pronounced elements in the speech stream (these nodes may be equivalent to ‘words’, single lexical nodes, or to phrases).

- (2) The crucial Greek contrast that requires abstract syntax:

Perisoteri anthropi menun sto kratos pu kivernai o Putin
more people live in.the state that governs the Putin

- a. **ap’oti** o Bush.
than.CLAUSAL the Bush.NOM
- b. * **apo** ton Bush.
than.PHRASAL the Bush.ACC
- c. * **tu** Bush.
the.GENITIVE Bush

‘More people live in the country that Putin governs than live in the country that Bush governs.’

- (3) Architectural alternatives

- a. **Surfacism:** All higher-order (phrasal) structures are projected from and contain only elements that are pronounced

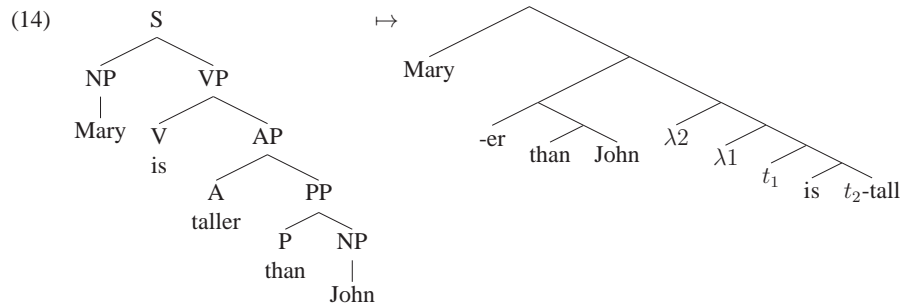
‘WYHIWYG’ theory (‘What you hear is what you get’): Ginzburg and Sag 2000, Culicover and Jackendoff 2005, much work in categorial grammars—part of the *Simpler Syntax* Hypothesis

- b. Some phrases and heads have no pronunciation.

Corollary: Their presence can only be detected indirectly.

- (4) Goal today: Show that inaudible syntax exists. There’s no retreat to surfacism.

- (10) **Phrasal** comparatives (what follows *than* is ‘phrasal’ (viz. a single DP))
- Mary plays the guitar better than [_{phrase} John].
 - More people play the guitar than [_{phrase} the violin].
 - Mary is taller than [_{phrase} John].
- (11) Classical syntax (Hankamer 1973, Kennedy 1999): two *thans* in English: one a preposition that takes a DP complement:
- Who is Mary taller than?
 - % She is a woman than whom no-one here is taller.
 - No-one₁ is taller than himself₁.
- (12) Classical semantics: (the so-called ‘direct’ analysis of Heim 1985 etc.)
- $\llbracket -er_{\text{DE}}^3 \rrbracket = \lambda x \lambda P_{\langle d, \langle e, t \rangle \rangle} \lambda y [\max\{d | P(d)(y)\} > \max\{d' | P(d')(x)\}]$
- (13) Or in Kennedy 2007’s versions:
- $\llbracket \text{MORE}_D \rrbracket = \lambda d \lambda g_{\langle d, et \rangle} \lambda x [\max\{d' | g(d')(x) = 1\} > d]$
 - $\llbracket \text{MORE}_I \rrbracket = \lambda y \lambda g_{\langle d, et \rangle} \lambda x [\max\{d' | g(d')(x) = 1\} > \max\{d'' | g(d'')(y) = 1\}]$
 - $\llbracket \text{MORE}_I \rrbracket = \lambda y \lambda g_{\langle d, et \rangle} \lambda x [\llbracket \text{MORE}_D \rrbracket (\max\{d'' | g(d'')(y) = 1\})(g)(x)]$



3 Clausal and two phrasal comparatives in Greek

	absolute	comparative	
		synthetic	analytic
(15) comparative morphemes:	psil-os	psilo- ter -os	pjo psil-os
	<i>tall-</i>	<i>tall-er-</i>	perisotero psil-os
			<i>more tall-</i>
			(-os is masc.sg.nom)

- (16) standard markers:¹

	phrasal	clausal
apo	GENITIVE	ap-oti
<i>from</i>	‘of’	<i>from-wh(free relative)</i>
<i>than.PHRASAL</i>	<i>than.GEN</i>	<i>than.CLAUSAL</i>

- (17) I Maria pezi kithara kalitera **ap’oti** pezi kithara o Giannis.
the Maria.NOM plays guitar better than.CLAUSAL plays guitar the Giannis.NOM
 ‘Maria plays the guitar better than Giannis plays the guitar.’
- (18) a. I Maria pezi kithara kalitera **apo** ton Gianni.
the Maria.NOM plays guitar better than.PHRASAL the Giannis.ACC
 ‘Maria plays the guitar better than Giannis.’
- b. Perisoteri anthropi thelun na mathun anglika **apo** germanika.
more people want.3p SUBJ learn.3p English than.PHRASAL German

Greek prepositionhood:

- (19) a. I Maria erxetai **apo** tin Athina.
the Maria.NOM is.coming from the Athens.ACC
 ‘Maria is coming from Athens.’
- b. I sinavlia proserfthike **apo** tin nomarxia.
the concert sponsor.pass.3s by the perfection
 ‘The concert was sponsored by the perfection.’
- (20) Apo pjon (ipes oti) epekse kalitera kithara i Maria
than.PHRASAL whom (said.2sg that) played better guitar the Maria.NOM
xthes?
yesterday
 ‘Than whom did (you say that) Maria play(ed) guitar better yesterday?’
- (21) Kanenas₁ dhen ine psiloteros apo [ton eafto tu]₁.
n-person not is taller than.PHRASAL the self his
 ‘No-one is taller than himself.’

¹For reasons of time, *ap’os-o/i...* and *para* clausal markers will not be discussed here, though they share many properties with *ap’oti* clauses; see Xeila-Markopoulou 1986, Giannakidou and Stavrou 2009, and Giannakidou and Yoon 2011.

- (22) O Gianni dhen ine psiloteros apo KANENAN.
the Gianni not is taller than.PHRASAL n-person
 ‘Giannis isn’t taller than anyone.’

3.1 *Reduced clausal comparatives* (Lechner 2001, 2004, Merchant 2009, Pancheva 2009)

- (23) a. More people live in Russia than in the US.
 b. More people thought they voted for Gore than for Bush.
 c. Amy likes to play the guitar loudly more than quietly.
 d. More people like to watch movies than climb mountains.
 e. Amy plays the guitar better than Sam the violin.

Bhatt and Takahashi 2011 (following Lechner 2001) claim that English has *only* clausal (and reduced) clausal comparatives, based on three examples with putative Principle C effects (two of which are irrelevant to deciding whether English doesn’t have any true phrasal (P+DP) comparatives, as they involve *than*+PPs):

- (24) a. *More people expect him_i to overtake **Sally** than Peter₁’s sister. vs.
 b. ??More people expect **Sally** to overtake him_i than Peter₁’s sister.

I’m not sure there’s a real contrast here, and in any case, their explanation of the putative contrast is in serious danger of failing, given the well-formedness of cases where overt mvmt or QR bleeds BT(C) (Fox 1999, etc.):

- (25) a. Sam_i’s dad, he_i’s always respected.
 b. I expected him₁ to overtake the same people Peter₁’s sister did <expect him₁ to overtake>.

• So English may still have both options (just as Japanese does, as Shimoyama 2011 argues)

- (26) a. I Maria pezi kithara kalitera **ap’oti** o Gianni.
the Maria.NOM plays guitar better than.CLAUSAL the Gianni.NOM
 ‘Maria plays the guitar better than Gianni plays the guitar.’
 b. Perisoteri anthropi nomizan oti psifisan ton Gore **ap’oti**
more people thought that they.voted.for the Gore.ACC than.CLAUSAL
ton Bush.
the Bush.ACC
 ‘More people thought that they voted for Gore than thought they voted for Bush.’
 (27) a. * I Maria pezi kithara kalitera **ap’oti** ton Gianni.
the Maria.NOM plays guitar better than.CLAUSAL the Gianni.ACC.
 ‘Maria plays the guitar better than Gianni plays the guitar.’

- b. * I Maria pezi kithara kalitera **apo** o Gianni.
the Maria.NOM plays guitar better than.PHRASAL the Gianni.NOM
 ‘Maria plays the guitar better than Gianni plays the guitar.’

Non-DP and multiple remnants are possible only with reduced clausal comparatives:

- (28) a. Perisoteri anthropi menun stis IPA **ap’oti** sti Rosia.
more people live in.the USA than.CLAUSAL in.the Russia
 ‘More people live in the US than in Russia.’
 b. Perisoteri anthropi milisan me ton Gianni tin Kyriaki **ap’oti** me
More people spoke with the Gianni the Sunday than.CLAUSAL with
ton Anesti to Savato.
the Anestis the Saturday
 ‘More people spoke with Gianni on Sunday than with Anestis on Saturday.’
 (29) a. * Perisoteri anthropi menun stis IPA **apo** sti Rosia.
more people live in.the USA than.PHRASAL in.the Russia
 (‘More people live in the US than in Russia.’)
 b. * Perisoteri anthropi milisan me ton Gianni tin Kyriaki **apo** me
more people spoke with the Gianni the Sunday than.PHRASAL with
ton Anesti to Savato.
the Anestis the Saturday
 (‘More people spoke with Gianni on Sunday than with Anestis on Saturday.’)
 (30) * Ap’oti pjos (ipes oti) epekse kalitera kithara i Maria
than.CLAUSAL whom (said.2sg that) played better guitar the Maria.NOM
xthes?
yesterday
 (lit. ‘Than who did (you say that) Maria play(ed) guitar better yesterday?’)
 (31) * Kanenas₁ dhen ine psiloteros ap’oti [o eaftos tu]₁.
n-person not is taller than.CLAUSAL the self his
 (lit. ‘No-one is taller than herself.’)
 (32) * O Gianni dhen ine psiloteros ap’oti KANENAS.
the Gianni not is taller than.CLAUSAL n-person
 (lit. ‘Giannis isn’t taller than anyone.’)
 (33) No difference wrt Principle C:
 a. pro₁ evlepe tin Anna eki pjo sixna ap’oti tin nona tu Kosta_{2/*1}.
 b. pro₁ evlepe tin Anna eki pjo sixna apo tin nona tu Kosta_{2/*1}.
he₁ saw the Anna there more often than the godmother the.gen Kostas
 ‘He₁ saw Anna there more often than (he saw) Kostas_{2/*1}’s godmother.’

4 Standard analysis

- (34) Properties of **apo** vs. **ap'oti** comparatives

	apo	ap'oti
allows only one remnant?	yes	no
allows only DP remnant?	yes	no
marks remnant with accusative?	yes	no
allows pied-piping?	yes	no
allows binding/neg-concord from matrix clause?	yes	no

- (35) a. **apo**-standards are just a DP prepositional object
 b. **ap'oti**-standards are clausal, possibly reduced (due to movement of the remnant + clausal ellipsis)
- (36) a. Abby plays guitar better [_{PP} than [_{DP} Ben]].
 b. I Maria pezi kithara kalitera [_{PP} **apo** [_{DP} ton Gianni]].
the Maria plays guitar better than.PHRASAL the Gianni.ACC
 'Maria plays the guitar better than Gianni.'
- (37) a. More people live in Russia than [_{CP} Op₁ [_{PP} in the US]₂ < t₁ live t₂ >].
 b. I Maria pezi kithara kalitera **ap'oti** [[o Gianni]₃]
the Maria plays guitar better than.CLAUSAL the Gianni.NOM
 <[_{TP} pezi kithara t₃]>].
plays guitar
 'Maria plays guitar better than Gianni does.'
 c. [[o Gianni]₃ <[_{TP} pezi kithara t₃]>]
- (38) a. I Maria milai me ton Petro pjo sixna **ap'oti** me ton Gianni.
the Maria speaks with the Petro.ACC more often than.CL with the Gianni.ACC
 [[_{PP} me ton Gianni]₁ <[_{TP} pro milai t₁]>].
with the Gianni.ACC she speaks
 'Maria talks with Petros more often than with Gianni.'
 [[_{PP} me ton Gianni]₁ <[_{TP} pro milai t₁]>]
 b. *I Maria milai me ton Petro pjo sixna **ap'oti** ton Gianni.
the Maria speaks with the Petro.ACC more often than.CL the Gianni.ACC
 [[_{DP} ton Gianni]₂ <[_{TP} pro milai [_{PP} me t₂]>].
the Gianni.ACC she speaks with
 ('Maria talks with Petros more often than Gianni.')
- *[[_{DP} ton Gianni]₂ <[_{TP} pro milai [_{PP} me t₂]>]

4.1 Unexpected island sensitivities

- (39) a. *Phrasal* comparatives in Greek show island effects.
 b. Reduced *clausal* comparatives do not.
- (40) Perisoteri anthropi menun sto kratos pu kivernai o Putin
more people live in.the state that governs the Putin
 a. **ap'oti** o Bush. (mean 3.5, N=8)
than.CLAUSAL the Bush.NOM
 b. ***apo** ton Bush. (mean 1.63, N=8)
than.PHRASAL the Bush.ACC
 'More people live in the country that Putin governs than live in the country that Bush governs.'²
- (41) O Nikos evlepe perisoteris tenies otan tu tis sistine i Nana
the Nikos saw more movies when him them recommended the Nana
 a. **ap'oti** i Elena.
than.CLAUSAL the Elena.NOM
 b. ***apo** tin Elena.
than.PHRASAL the Elena.ACC
 'Nikos saw more movies when Nana recommended them to him than he saw when Elena recommended them to him.'
- (42) To oti o pritanis prokitai na kalesi ti katharistria ine perisotero aksioperiergo
the that the dean is.going to invite the cleaner is more noteworthy
 a. **ap'oti** tin Maria.
than.CLAUSAL the Maria.ACC
 b. ***apo** tin Maria.
than.PHRASAL the Maria.ACC
 'That the dean is going to invite the cleaning lady is more noteworthy than that he is going to invite Maria.'
- Nonelliptical controls are fine:
- (43) Perisoteri anthropi menun sto kratos pu kivernai o Putin **ap'oti**
more people live in.the state that governs the Putin than.CLAUSAL
menun sto kratos pu kivernai o Bush.
live in.the state that governs the Bush.NOM
 'More people live in the country that Putin governs than live in the country that Bush governs.'

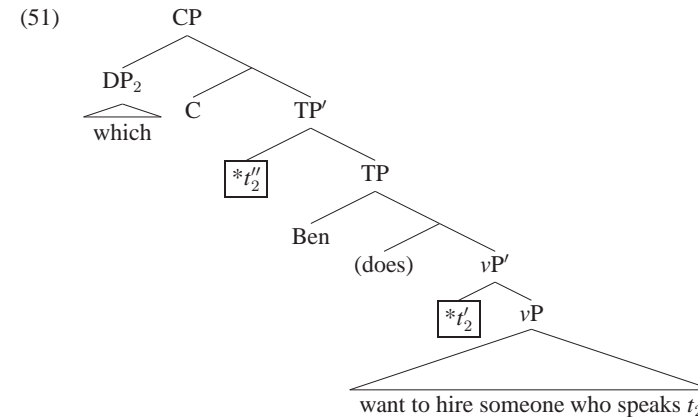
²This example was tested in a written questionnaire administered to eight native speakers of Greek in Katerini, Greece; respondents were asked to rate the example sentences on a scale of 1 (=unacceptable) to 5 (=completely normal). Similar effects are found in Lithuanian; see Grinsell 2010.

- (44) O Nikos evlepe perisoteres tenies otan tu tis sistine i Nana
the Nikos saw more movies when him them recommended the Nana
ap'oti evlepe otan tu tis sistine i Elena.
than.CLAUSAL saw when him them recommended the Elena.NOM
 'Nikos saw more movies when Nana recommended them to him than he saw when Elena recommended them to him.'
- (45) To oti o pritanis prokitai na kalesi ti katharistria ine perisotero aksioperiergo
the that the dean is.going to invite the cleaner is more noteworthy
ap'oti ine to oti prokitai na kalesi tin Maria.
than.CLAUSAL is the that is.going to invite the Maria.ACC
 'That the dean is going to invite the cleaning lady is more noteworthy than that he is going to invite Maria is.'

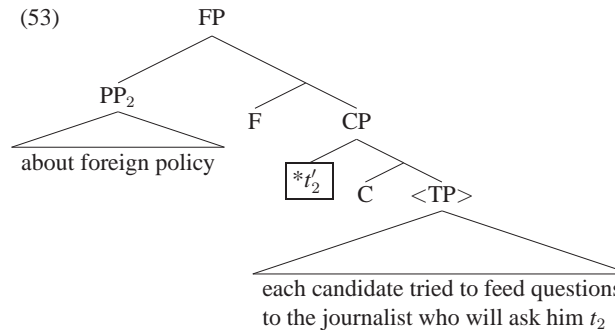
5 An elliptical analysis

5.1 Elliptical repair in sluicing, VP-ellipsis, and fragment answers

- (46) **Idea:** Island conditions are irreducibly *syntactic* in nature (island constraints must be stated over *syntactic* representations, and are not entirely reducible to semantic conditions or to processing overload. (Ross 1969, Phillips 2006, Sprouse et al. 2009, *pace aliquibus aliis*)
- (47) Islands can be repaired by ellipsis: Ross 1969, Chomsky 1972, Merchant 2001, 2004, Lasnik 2001, Lasnik and Park 2003, Fox and Lasnik 2003, Agüero-Bautista 2007, and many others
- (48) *No ellipsis*
 *Ben wants to hire someone who speaks a Balkan language, but I don't remember which he wants to hire someone who speaks.
- (49) *Sluicing*
 Ben wants to hire someone who speaks a Balkan language, but I don't remember which.
- (50) *VP-ellipsis*
 *Abby wants to hire someone who speaks a Balkan language, but I don't remember what kind of language Ben does. (= <want to hire someone who speaks>)

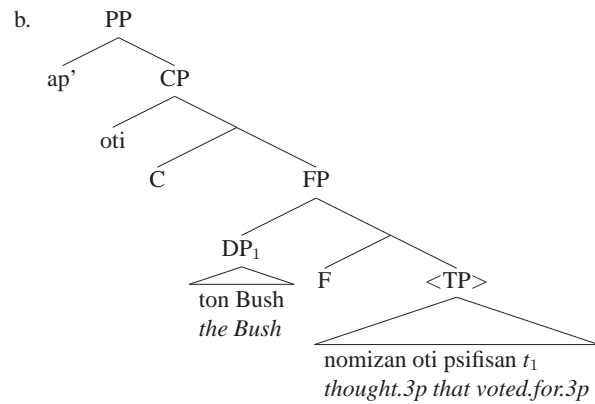


- (52) Fragment answers (Merchant 2004, Arregi 2011, Temmerman 2012)
- A: Did each candidate₁ try to feed questions to the journalist who will ask him₁ *about abortion* (at the debate)?
 - B: *No, [about foreign policy].
 - cf. B: No, each candidate₁ tried to feed questions to the journalist who will ask him₁ *about foreign policy*.

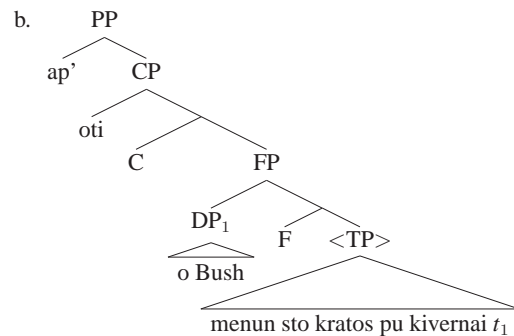


5.2 Variable island effects in Greek comparatives

- (54) a. Perisoteri anthropi nomisan oti psifisan ton Gore ap'oti
more people thought.3p that voted.for.3p the Gore.ACC than.CLAUSAL
 ton Bush.
the Bush.ACC
 'More people thought that they voted for Gore than (thought that they voted for) Bush.'



- (55) a. *Perisoteri anthropi menun sto kratos pu kivernai o Putin ap'oti o Bush.*
more people live in.the state that governs the Putin than.CLAUSAL the Bush.NOM
 (lit.) 'More people live in the country that Putin governs than (live in the country that) Bush (governs).'

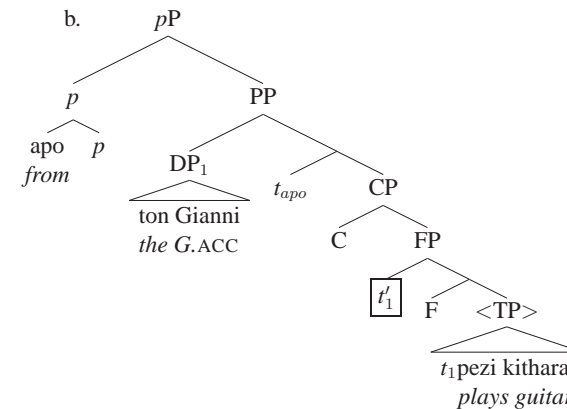


5.3 Greek *apo*-phrasals as reduced clausals?

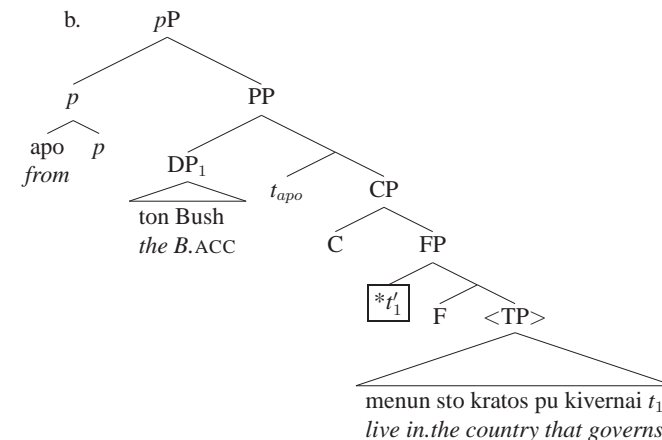
- (56) Reviving Smith 1961, Lees 1961, Chomsky 1965: phrasal comparatives are just a different kind of reduced clausal comparative³

³Evidence for additional structure (implicated especially in assigning case, as such higher shells are in the verbal domain) in the prepositional phrase: Matsubara 2000, Kayne 2004; Theophanopoulou-Kontou 1992, Terzi 2005, Botwinik-Rotem and Terzi 2008. (On raising out of finite clauses, Joseph 1979, 1990, etc.; on raising to an additional case position, Béjar and Massam 1999, Merchant 2006; on raising to object of a preposition,

- a. *I Maria pezi kithara kalitera apo ton Gianni.*
the Maria.NOM plays guitar better than.PHRASAL the Giannis.ACC
 'Maria plays guitar better than Giannis.'



- (57) a. **Perisoteri anthropi menun sto kratos pu kivernai o Putin apo ton Bush.*
more people live in.the state that governs the Putin than.PHRASAL the Bush.ACC
 'More people live in the country that Putin governs than (live in the country that) Bush (governs).'



Schematically:

- (58) ap'oti [FP o Bush₁ <[TP menun sto kratos pu
 apo [PP ton Bush₁ t_{apo} [FP *t'₁ <[TP menun sto kratos pu
 than the Bush.ACC the Bush.NOM live in.the state that
 kivernai t₁]>]]
 kivernai t₁]>]]
 governs

- (59) Joseph 1990:(14):

Me ton kombo na ftani sto xteni etsi, i lisi faneronotan.
 with the knot.ACC SUBJ reach.3s to.the comb thus the solution.NOM manifested.3s

'With things coming to a head in this way, the solution was becoming evident.' (lit.
 'With the knot thus reaches the comb, ...')

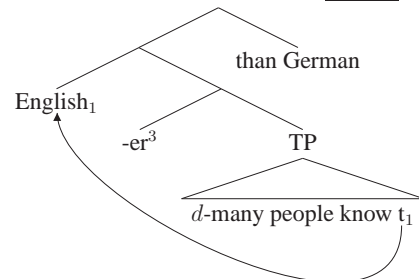
6 The 'direct' analysis revisited: -er² vs. -er³, and eDe vs. Dee

Perhaps locality effects reflect covert movement of the correlate required by the semantics (following Heim 1985, Bhatt and Takahashi 2011, Kennedy 2007)?

- (60) $[-er^3_{Dee}] = \lambda D_{\langle d,et \rangle} \lambda x_e \lambda y_e [\max\{d|D(d)(x)\} > \max\{d'|D(d')(y)\}]$

- (61) a. More (=many-er³) people know English_{correlate} than German.

b.

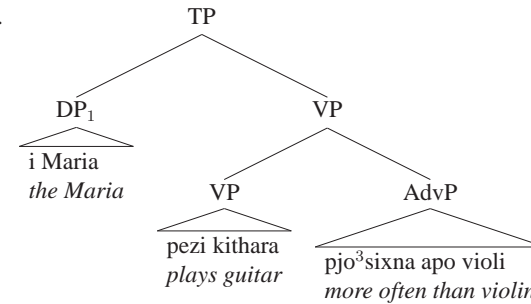


- c. $[[n\text{-many_people_know_}t_1]] = \lambda d \lambda x_1 [d\text{-many_people_know_}x_1]$

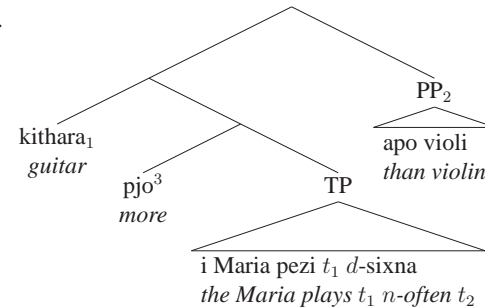
- d. $\max\{d|d\text{-many_people_know_English}\} > \max\{d'|d'\text{-many_people_know_German}\}$

- (62) I Maria pezi kithara pjo sixna apo violi.
 the Maria.NOM plays guitar more often than.PHRASAL violin.ACC
 'Maria plays guitar more often than violin.'

- (63) a. \mapsto



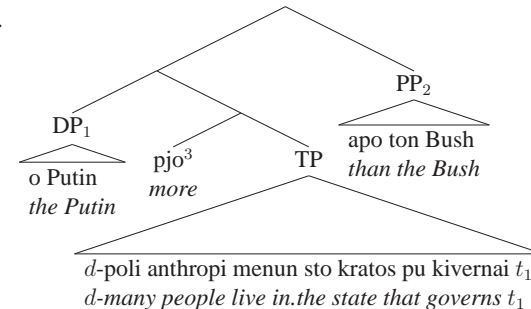
b.



Island effects arise from restrictions on covert syntactic movement of the correlate:

- (64) a. *Perisoteri anthropi menun sto kratos pu kivernai o Putin apo
 more people live in.the state that governs the Putin than.PHRASAL
 ton Bush.
 the Bush.ACC
 'More people live in the country that Putin governs than (live in the country that)
 Bush (governs).'

b.



- locality of *apo* comparatives = pseudo-clausemate restriction on QR? (judgment unmarked)

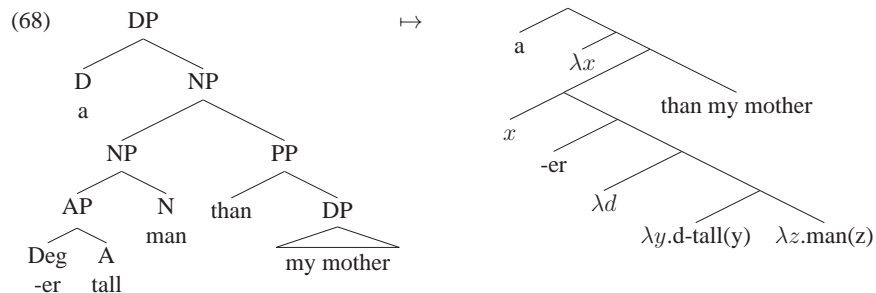
- (65) I Maria lei oti ine eksipni pjo sixna apo tin Anna.
the Maria says that is smart more often than.PHRASAL the Anna
 ‘Maria more often says that she’s smart than Anna (says she’s smart).’
- (66) English is uniformly island-sensitive (as you’ve probably noticed); Heim 1985 and Reinhart 1991:
- *I spent more time with a woman than played the clarinet than the lute.
 - *More people live in the country Putin governs than Bush.

Idea: The difference between English and Greek might be that in Greek clausal comparatives (even reduced ones), movement of the correlate does **not** occur; in English clausal comparatives, movement of the correlate is required (as it is in phrasal comparatives in both languages). This should presumably be derived from differing constraints on the ellipsis involved: English would require LF-identity (forcing the correlate to move), while Greek wouldn’t. (This would potentially make new predications about scope in ellipsis in the two languages we could test.)

6.1 Deriving positional effects

Bresnan 1973, Heim 1985, etc.:

- (67) a. I have never seen a man taller than my mother.
 b. #I have never seen a taller man than my mother. (felicitous only if speaker’s mother is a man)⁴
 c. *a taller than my mother man (Williams’ ‘Righthand Head Rule’)



⁴As Heim 1985 points out, it’s not quite clear what blocks this on the ellipsis (Bresnan’s) analysis, other than the stipulation that the ellipsis take as its antecedent the node to which the *than*-clause is attached; this is unlike better understood ellipses, which are subject to no such requirement. Something similar would have to be said if Lechner and Bhatt & Takahashi were right that English lacks such phrasal comparatives. Everybody else still needs to block a reduced clausal source for this of course: cf. Italian *di* vs. *che* comparatives (Donati 2000).

- (69) Greek *apo*-phrasals do not show these restrictions:
- Giati omos enas kaliteros apo ton IE6 browser dhen ginete katholika
why however a better than the IE6 browser not becomes generally
apodhektos?
accepted
 ‘But why doesn’t a browser that’s better than IE6 get more widely adopted?’
 - Enas psiloterous apo mena antras bori na min exi problima.
a taller than me man might SUBJ not has problem
 ‘A man taller than me might not have a problem.’ (→ the speaker is a man)

7 Genitives of comparison

A third possibility (cf. Holton et al. 1997:471-472, who give two examples):

- (70) O Giannis ine psilóterós tis.
the Giannis is taller her.GEN
 ‘Giannis is taller than her.’
- (71) I Anna pandrefitike enan psilóteró tis andra.
the Anna married.3s a taller her.GEN man
 ‘Anna married a man taller than her.’
- (72) O pirkos tha ine psilóteros tu spitiu.
the tower will be taller the house.GEN
 ‘The tower will be taller than the house.’

These occur with all possible genitive personal pronouns, and, more marginally, with demonstrative and relative pronouns:

- (73) O Giannis ine psilóterós mu/su/tu/tis/mas/sas/tus.
the Giannis is taller 1s/2s/3smn/3sf/1p/2p/3p.GEN
 ‘Giannis is taller than me/you/him/it/her/us/you/them.’
- (74) O Giannis ine psilóteros aftinu/aftinis.
the Giannis is taller dem.GEN
 ‘Giannis is taller than that one.’
- (75) Ime o andras tu opiu ine psiloterous o Giannis.
I.am the man the which.GEN is taller the Giannis
 ‘I am the man whom Giannis is taller than.’

Non-clitic nominals are also possible in predicate comparatives, but are worse in attributive (generally, longer genitive standards are worse than short ones in attributives):

- (76) O Giannis ine psiloterous tu patera tu.
the Giannis is taller the father.GEN his
 ‘Giannis is taller than his father.’

- (77) ?Dhen ine ena psiloterō tu patera tu pedhi.
not is a taller the father.GEN his child
 ‘He is not a child taller than his father.’
- (78) Some attested examples:
- a. O Zaneti ine kaliteros tu Melo ke pistevo oti se afti ti thesi enas
the Zaneti is better the Melo.GEN and I.think that in this the position an
Italos ine kaliteros apo enan Vraziliano.
Italian is better than a Brazilian
 ‘Zaneti is better than Melo and I think that in this position, an Italian is better than a Brazilian.’
- b. O efetinos Olympiakos kaliteros tu perisinu Panathinaiku
the this.year Olympiakos better the last.year Panathenian.GEN
 ‘This year’s Olympiakos better than last year’s Panathenian’
- c. Stin epanalipsi o Atromitos itan kaliteros tu antipalu tu.
in.the repetition the Atromitos was better the opponent.GEN his
 ‘In the rematch, Atromitos was better than his opponent’
- d. Xiroteros tis gripis ine o ios tu paniku.
worse the flu.GEN is the virus.of.the panic
 ‘Worse than the flu is the virus of the panic.’
- e. ke meta su lene pos i andres ine dhithen eksipnoteri ton
and then you.dat they.say that the men are supposedly smarter of.the
jinekon!
women
 ‘And then they tell you how men are supposedly smarter than women!’

Genitives of comparison only attach to the synthetic comparative form of a degree adjective; they do not attach to adverbs of any kind, to analytic comparatives, or to amount comparatives:⁵

- (79) a. I Maria pezi kithara kalitera { apo mena / *mu }.
the Maria plays guitar better from me me.GEN
 ‘Maria plays guitar better than me.’
- b. i. O Giannis ine pjo psilos { apo mena / *mu }.
the Giannis is more tall from me me.GEN
 ‘Giannis is taller than me.’
- ii. *O Giannis ine pjo { apo mena / mu } psilos.
the Giannis is more from me me.GEN tall
 (‘Giannis is taller than me.’)

- c. i. O Giannis exi perisotera periodika { apo mena / *mu }.
the Giannis has more magazines from me me.GEN
 ‘Giannis has more magazines than I have.’
- ii. O Giannis exi perisotera { apo mena / *mu } periodika.
the Giannis has more from me me.GEN magazines
 ‘Giannis has more magazines than I have.’

Nor can degree-denoting DPs be marked with the genitive:

- (80) I Anna ine psiloteri { apo dio metra / *dio metron }.
the Anna is taller than two meters two meters.GEN
 ‘Anna is taller than two meters.’

(81) Generalizations:

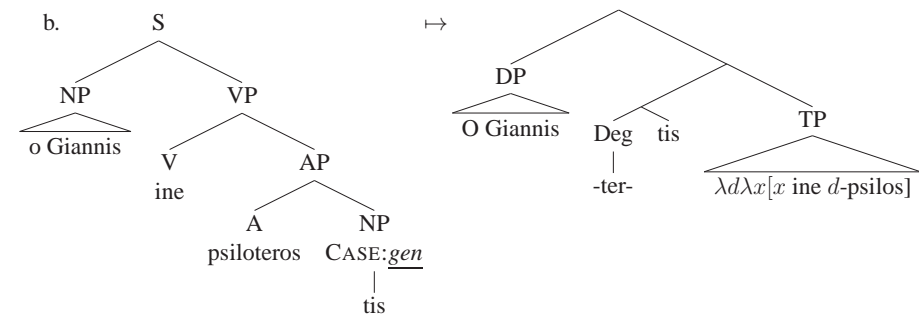
The genitive of comparison...

- a. ... must be adjacent to a synthetic degree adjective
- b. ... must denote an individual which is a standard of comparison (that is, a direct argument of the degree morpheme)

7.1 Analysis

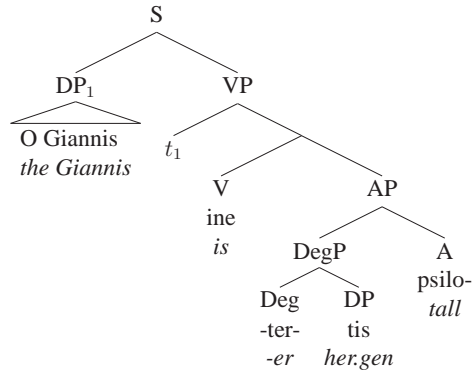
- Applying Heim’s analysis would lead us to expect the following:

- (82) a. O Giannis ine psiloteros tis.
the Giannis is taller her.GEN
 ‘Giannis is taller than her.’



⁵The range of comparative adjectives which co-occur with genitive standards is also limited in ways that remain unclear. Corpus searches return dozens of common adjectives, but none with rarer ones, and these latter are also rejected by speaker informants. The Athens ILSP tagged corpus, unfortunately, has only four tokens of tagged comparatives, and string searches are made very onerous by the homophonous raised possessors (for example, *o kaliteros mu filōs* ‘the better me.GEN friend’ tends overwhelmingly to mean ‘my best friend’, not ‘the friend who is better than me’).

- (83) Instead, I propose an entirely *in situ* structure:
With **predicative** adjectives:



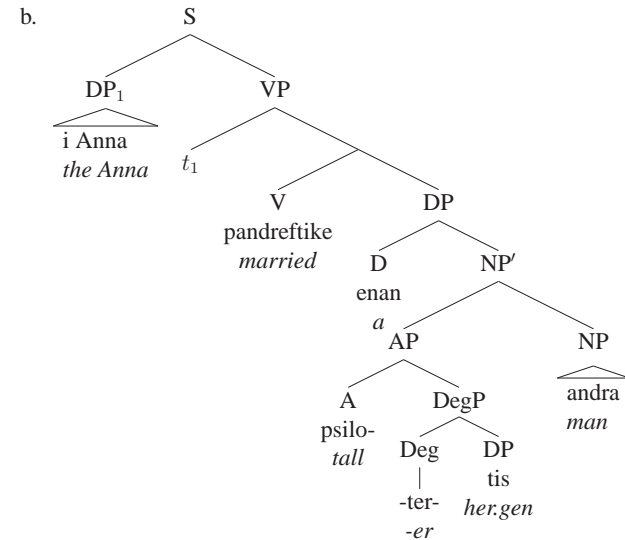
- (84) a. $\llbracket \text{DegP} \rrbracket \rightsquigarrow \lambda D \lambda x [\max\{d|D(d)(x)\} > \max\{d'|D(d')(her)\}]$
 b. $\llbracket \text{AP} \rrbracket \rightsquigarrow \lambda x [\max\{d|tall(d)(x)\} > \max\{d'|tall(d')(her)\}]$
 c. $\llbracket \text{S} \rrbracket \rightsquigarrow \max\{d|tall(d)(Giannis)\} > \max\{d'|tall(d')(her)\}$

- (85) Partial lexical entry for *-ter-*:

- a. *syntax*: [Case: *genitive*]
 b. *semantics*: $\lambda y \lambda D \lambda x [\max\{d|D(d)(x)\} > \max\{d'|D(d')(y)\}]$

- (86) With **attributive** adjectives:

- a. I Anna pandreftike enan psilotero tis andra.
the Anna married.3s a taller her.GEN man
 'Anna married a man taller than her.'



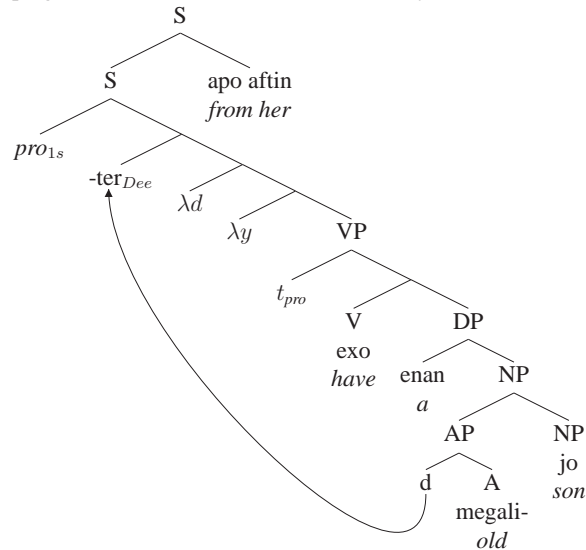
- (87) a. $\llbracket \text{DegP} \rrbracket \rightsquigarrow \lambda D \lambda x [\max\{d|D(d)(x)\} > \max\{d'|D(d')(her)\}]$
 b. $\llbracket \text{AP} \rrbracket \rightsquigarrow \lambda x [\max\{d|tall(d)(x)\} > \max\{d'|tall(d')(her)\}]$
 c. $\llbracket \text{NP} \rrbracket \rightsquigarrow \lambda z [\text{man}(z)]$
 d. $\llbracket \text{NP}' \rrbracket \rightsquigarrow \lambda x [\text{man}(x) \wedge [\max\{d|tall(d)(x)\} > \max\{d'|tall(d')(her)\}]]$ (by Predicate Modification)
 e. $\llbracket \text{DP} \rrbracket \rightsquigarrow \exists x [\text{man}(x) \wedge [\max\{d|tall(d)(x)\} > \max\{d'|tall(d')(her)\}]]$
 f. $\llbracket \text{S} \rrbracket \rightsquigarrow \exists x [\text{man}(x) \wedge [\max\{d|tall(d)(x)\} > \max\{d'|tall(d')(her)\}] \wedge \text{married}(anna, x)]$

- (88) Scoping $[\text{DegP } -ter \text{ DP.gen}]$ would be bad:

- a. O Kostas ine enas psiloteros tis andras. \mapsto
the Kostas is a taller of.her man
 'Kostas is a man who is taller than she is.'
 b. LF: (!) Kostas $[\text{DegP } -ter \text{ she}] [\lambda d \lambda x [x \text{ is a } d\text{-tall man}]]$

Compare *apo*-phrasal comparatives with genitives:

- (89) (Milondas ja tin adherfi mu tin Eleni... *Speaking of my sister Eleni...*)
- Exo enan jo megalitero apo aftin.
I.have a son older from her.ACC
 - Exo enan megalitero apo aftin jo.
I.have an older from her.ACC son
 - Exo enan megalitero jo apo aftin.
I.have an older son from her.ACC
 - = I have a son who is older than Eleni is. <*d*-old>
 - = I have a older son than Eleni does. <have a *d*-old son>
- (90) (Milondas ja tin adherfi mu tin Eleni... *Speaking of my sister Eleni...*)
- Exo enan jo megalitero tis.
I.have a son older her.GEN
 - Exo enan megalitero tis jo.
I.have an older her.GEN son
 - * Exo enan megalitero jo tis.
I.have an older son her.GEN
 - = I have a son who is older than Eleni is. <*d*-old>
 - ≠ I have a older son than Eleni does. <have a *d*-old son>
- (91) Scoping *-ter* with *apo* is sometimes necessary: (89b) on ‘VP’-reading (89e):



7.2 Inventory

If all the semantic work is done by the comparative morpheme(s), as is usually assumed, then we have the following in Greek:

- (92) with *ap'oti*:
- $\llbracket \text{pjo}^2 \rrbracket = \lambda D_{\langle dt \rangle} \lambda D'_{\langle dt \rangle} [\max(D) > \max(D')]$
 - $\llbracket \text{perisotero}^2 \rrbracket = \lambda D_{\langle dt \rangle} \lambda D'_{\langle dt \rangle} [\max(D) > \max(D')]$
 - $\llbracket \text{-ter}^2 \rrbracket = \lambda D_{\langle dt \rangle} \lambda D'_{\langle dt \rangle} [\max(D) > \max(D')]$
- (93) with *apo*:
- $\llbracket \text{pjo}_{\text{Dee}}^3 \rrbracket = \lambda D_{\langle d, et \rangle} \lambda x_e \lambda y_e [\max\{d|D(d)(x)\} > \max\{d'|D(d')(y)\}]$
 - $\llbracket \text{perisotero}_{\text{Dee}}^3 \rrbracket = \lambda D_{\langle d, et \rangle} \lambda x_e \lambda y_e [\max\{d|D(d)(x)\} > \max\{d'|D(d')(y)\}]$
 - $\llbracket \text{-ter}_{\text{Dee}}^3 \rrbracket = \lambda D_{\langle d, et \rangle} \lambda x_e \lambda y_e [\max\{d|D(d)(x)\} > \max\{d'|D(d')(y)\}]$
- (94) with genitive:
- $\llbracket \text{-ter}_{\text{De}}^3 \rrbracket = \lambda y \lambda D \lambda x [\max\{d|D(d)(x)\} > \max\{d'|D(d')(y)\}]$ (but cannot QR)

Quite an inventory: maybe a better route to go is to assign some meaning to the *than*-morphemes, or to use a division of labor: see Alrenga et al. 2012 for a move in this direction...

8 Conclusions

- We need at least three syntactic ways to reach similar meanings, even within one language
- Semantic primitives may not vary across languages, though the way they get put together may (see Kennedy 2007 and Giannakidou 2009) (and see Shimoyama 2011 for caveats about reaching this conclusion on the basis of Japanese!); order of Currying matters? Really?
- Surface structure can be misleading: we need inaudible syntax. As Culicover and Jackendoff 2005:246fn11 put it, “If [such] cases ... were ungrammatical, that would be far better evidence of the reality of invisible [*sic*, intended: inaudible—JM] structure.”

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Appendix: Yes, but what about Hindi?

Bhatt and Takahashi 2011 claim that Hindi has only individual (phrasal, ‘direct’) comparison, not clausal (full degree) comparatives (except with correlative structures), and that, since Hindi lacks covert mvmt (QR), only a direct analysis makes the correct predictions about the position of the standard: they claim that the correlate must move first, and then the standard+more can move just under it, allowing *-er*³ to take all its arguments (generally this will mean that the correlate must precede the standard):

- (95) a. *MP-se zyaadaa logō-ne LGB paṭh-ii. (= Bhatt and Takahashi’s (30))
MP-than more people-erg LGB.f read-Pfv.f
 (intended: ‘More people read LGB than read the MP.’)
- b. LGB MP-se zyaadaa logō-ne paṭh-ii.
LGB.f MP-than more people-erg read-Pfv.f
 ‘More people read LGB than read the MP.’
- (96) Problem: Binding Theory facts tell us that a low correlate can take covert scope over a scrambled standard:
- a. Atif-ne [Ravi-kii_i behen-kii foto]-se_j us_i-ko [Mohan-kii behen-kii foto]
Atif-erg Ravi-gen sister-gen picture-than he-dat Mohan-gen sister picture
 [_{t_j} zyaadaa baar] dikhaa-ii. (=B&H’s (35))
more times show-Pfv.f
 ‘Atif showed Mohan’s sister’s picture to him_i more times than (Atif showed him_i) Ravi_i’s sister’s picture.’