Direct Comparisons: Resurrecting the Direct Analysis of Phrasal Comparatives

1. Introduction and Major Claims Phrasal comparatives (1) have received two kinds of analyses, the Reduction Analysis (RA), which assumes a 2-place degree operator (*-er*$_2$), (Bresnan 1973, Pinkham 1982/5, Lechner 2001) and treats its *than*-phrase as a reduced clause (see (2a)), and the Direct Analysis (DA), which assumes a 3-place operator (*-er*$_3$), (Hoeksema 1983/4, Heim 1985, see (2b)). The RA receives support from Lechner's claim that the RA accounts for Pinkham's Contrast in (3) and the binding contrast in (4), but the DA does not. We show that the DA can account for these contrasts. This is desirable because, as we go on to show, there are languages where the RA is not an option and which yet exhibit the relevant contrasts. Our proposal is not an argument against *-er*$_2$ or the RA in general and can be seen as providing evidence for a systematic crosslinguistic ambiguity between *-er*$_2$ and *-er*$_3$.

2. A Single Remnant Restriction as an Argument for the DA Hindi-Urdu (HU) systematically forbids multiple remnants in phrasal comparatives, as in (5b). This is surprising under a RA but follows from the DA. Consider the LF with a single remnant in (2b): *-er*$_3$ takes 3 arguments. Generalizing to (5b), the case with 2 remnants would require an *-er* that would need to take 2 associates, 2 remnants, and a predicate of degrees and 2 individuals. But this is not what the syntax delivers since the 2 remnants form a constituent in (6). We relate the unavailability of the RA in HU to the fact that in the language, finite clause complements can never appear as the complements of a postposition, which is what *-se* the HU counterpart of *than* is. The alternative left is the DA, which correctly predicts the impossibility of multiple remnants in HU.

3. A Related Contrast in HU If the existence of Pinkham's contrast was related to the RA, it should not surface in a DA language. But a similar contrast is found in HU. HU but not English requires that the associate precede the comparison (7a) vs. (3b). These contrasts follow from the DA, together with the differences in covert movement possibilities between these languages. In (7b), both the associate and the remnant take scope over the degree abstraction, marked by the surface position of *zyaadaa* 'more' and *-er*$_3$ gets all of its arguments. In (7a), however, the associate follows *zyaadaa* in overt syntax. HU is a scrambling language; covert scrambling/QR of DPs is not possible. Covert movement not being an option, *-er*$_3$ is not able to get all of its arguments at LF. This can be contrasted with English which allows for covert movement of the associate, giving *-er*$_3$ the requisite number of arguments (see (2b)).

4. Deriving Pinkham's Contrast in a DA Following Williams (1974) and Bhatt and Pancheva (2004), we take the surface position of the *than*-phrase to mark the scope of *-er*. Given this, (3c) indicates that *-er* is taking scope within the DP. We adopt Matushansky (2002)'s analysis of DP-internal *than*-clauses according to which there are DP-internal scope positions to which a DP-internal *-er* can move and provide a site for Late Merge of the *than*-clause. The *-er* here is *-er*$_2$; it has a clausal complement. Within the DP, *-er*$_2$ gets both its complements: the clausal complement and the degree predicate created by DP-internal *-er* movement. Applying the same machinery to (3a), we can Late Merge the *than*-phrase into a DP-internal position. The problem arises at LF. The *-er* here is *-er*$_3$ by assumption. (A derivation for (3a) using *-er*$_2$/the RA is ruled out in Lechner (2001).) It needs three arguments. We get the predicate of degrees and individuals, and the remnant (the *than*-phrase, *suits*) but the associate *sports jackets* is nowhere to be found. The associate *sports jackets* is not DP-internal and there is no way to move it into a DP-internal position where it could function as an argument of *-er*$_3$. Consequently (3a) cannot be derived under the DA.

5. A Putative Binding Problem Lechner (2004) takes the contrast in (4) as evidence against the DA by arguing that in the DA-based LFs in (8) do not differ in a way that could account for the grammaticality contrast. The RA captures the contrast because the *than*-phrase involves a full-fledged clausal structure, which violates Condition C in (4b), but not in (4a). However, this problem does not arise if we assume that the movement of the associate and the remnant is subject to economy (Fox 2000); they can only move to the closest interpretable position, which is in the scope domain of the subject (see (9)), not as far as in (8). Given this, (4b) has the LF in (9b) and it is correctly ruled out by the Condition C violation.

(1) a. More men wear sports jackets [than suits].
b. John ate more apples [than bananas].

(2) a. ***-er*$_2$**: 2 arguments, the complement is a degree/property of degrees and the second argument is a property of degrees. The *than*-phrase complement can be realized by a degree name as in *more than n* or by a clause (full or reduced).
$[\![\text{-er}_2]\!] = \lambda P_{dt} \lambda Q_{dt} \exists d [Q(d) \wedge \neg P(d)]$

b. ***-er*$_3$**: 3 arguments, the complement is an individual (*suits* in (1b), henceforth the *remnant*), the second argument is a predicate of degrees and individuals and the third argument is also an individual (*sports jackets* in (1b), henceforth the *associate*).
$[\![\text{-er}_3]\!] = \lambda x \lambda P_{det} \lambda y \exists d [P(y, d) \wedge \neg P(x, d)]$
LF for (1b): [[sports jackets] [[-er [than suits]] [$\lambda d \lambda x$ [*d*-many men wear *x*]]]]
(*sports jackets* moves at LF, *suits* is Late-Merged with *-er* in its scope position.)

Both the direct analysis and the reduction analysis are options made available by UG.

(3) a. *More men [than suits] wear sports jackets.
b. More men wear sports jackets [than suits].
c. More men [than wear suits] wear sports jackets.

(4) a. Sally introduced him$_i$ to more friends than Peter$_i$'s sister <introduced him$_i$ to d-many friends>.
b. *He$_i$ introduced Sally to more friends than <he$_i$ introduced> Peter's sister <to d-many people>.

(5) a. single remnant: *Mary/kal* 'yesterday':
John-ne aaj Mary-se/kal-se zyaadaa kamre saaf kiye.
John-Erg today Mary-than/yesterday-than more rooms.m clean do.Pfv.MPl
'John cleaned more rooms today than Mary/yesterday.'

b. *multiple remnants: *Mary kal* 'Mary yesterday':
*John-ne aaj Mary kal-se zyaadaa kamre saaf kiye.
John-Erg today Mary yesterday-than more rooms.m clean do.Pfv.MPl
'John cleaned more rooms today than Mary yesterday.' (unavailable)

(6) [John [today [[-er [than Mary yesterday]] [$\lambda d \lambda x \lambda y$ [*x* cleaned *d*-many rooms at *y*]]]]]

(7) a. **remnant** > *more* > **associate**
***MP-se** *zyaadaa* logõ-ne **LGB** par.h-ii.
MP-than *more* people-Erg **LGB**.f read-Pfv.f
'More people read LGB than MP.' (intended, but unavailable)
(possible reading: People read LGB to a greater extent than they read MP.)
LF: *[[-er MP] [λd [*d*-many people read LGB]]]

b. **associate** > **remnant** > *more*
LGB **MP-se** *zyaadaa l*ogõ-ne par.h-ii.
LGB.f **MP-than** *more* people-Erg read-Pfv.f
'More people read LGB than MP.'
LF: [LGB [[-er MP] [$\lambda d \lambda x$ [*d*-mansy people read *x*]]]]

(8) a. [$_{TP}$ Sally [$_{TP}$ [-er [than Peter$_i$'s sister]] [$\lambda d \lambda x$ [$_{TP}$ *x* introduced him$_i$ to *d*-many friends]]]]
b. [$_{TP}$ Sally [$_{TP}$ [-er [than Peter$_i$'s sister]] [$\lambda d \lambda x$ [$_{TP}$ he$_i$ introduced *x* to *d*-many friends]]]]

(**Economy violation**: remnant/associate move further (to edge of TP) than they need to (to edge of *v*P).)

(9) a. [$_{TP}$ Sally [$_{vP}$ [-er [than Peter$_i$'s sister]] [$\lambda d \lambda x$ [$_{vP}$ *x* introduced him$_i$ to *d*-many friends]]]]
b. [$_{TP}$ he$_i$ [λx [$_{vP}$ Sally [$_{vP}$ [-er [than Peter$_i$'s sister]] [$\lambda d \lambda y$ [$_{vP}$ *x* introduced *y* to *d*-many friends]]]]]]

(**Economical derivation**: remnant/associate move only as far as they need to (to edge of *v*P).)