An analysis of the structure of possessive-adjective phrases (e.g., "women's new suitcases, new women's suitcases") in English looks at some data that appear to conflict with the intuitive order of S-structure possessives preceding adjectives. A solution to this apparent anomaly is proposed: it is not the compounding of possessive-noun combination that regulates pre-possessive adjectives, but the non-referentiality of the possessive form. The analysis is presented for English, then some data from Finnish are presented to suggest that the constraint is more universal than might be supposed. A brief bibliography is included. (MSE)
New Women's Suitcases: The possessive-adjective switch
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I. The problem

Intuitively, it seems to be true that at S-structure possessives always precede adjectives in English—and in fact, in a language like Swedish, this does seem always to be the case, as described to me by Anders Holmberg, p.c. Some data that appear to conflict with the intuition for English, however, are the following (suggested to me by Dan Seymour):

(1)  a. those are women's new suitcases
     b. those are new women's suitcases

(2)  a. a women's new suitcase is expensive
     b. a new women's suitcase is expensive

(3)  a. a women's new black suitcase is available
     b. a new women's black suitcase is available

Notice, of course, that the difference between the (a) and (b) cases in each of these examples is that the possessive-adjective order is reversed between them.

Three properties of such constructions that are both interesting and of relevance to us are: (i) the possessive-noun combinations are not compounds, since another constituent may intervene between them (see (3)); (ii) the sentences (a) and (b) in each pair may diverge in interpretation; and (iii) what allows the possessive to be preceded by the adjective is that it is indefinite, so that it is predicted that any
possessive construction allowed in There-insertion can occur postadjectivally in a string:

(4)  
    a. There are two presidents' old portraits on the table.
    b. There are two old presidents' portraits on the table.
    c. There are presidents' old promises to consider.
    d. There are old presidents' promises to consider.

Now, regarding the possible status of the possessive-noun combinations as compounds, not only may another constituent intervene between the possessive form and the noun (as noted above in (i)), but the standard stress pattern of compounds is not available in these constructions. If expressions like presidents' promises or women's suitcases were compounds, compound stress would be predicted to occur on the first word—the possessive form (Chomsky and Halle, 1968; Burstein, 1992). Yet these expressions receive phrasal stress, on the second word. In possessive-noun expressions that are compounds like brides' magazine or children's zoo, the stress is on the possessive form.

Of course (with respect to (iii) above) any expression introduced by a proper name or pronoun is blocked for purposes of There-insertion. As it turns out, this is true even if the proper name construction is a compound:

(5)  
    a. * There is Grimm's law in that textbook.
    b. * There was Gödel's theorem on the board.

Hence, given the evidence from intervening constituents, phrasal stress patterns, and the correlation with There-insertion cases, we can put forward the
hypothesis that it is not compounding of the possessive-noun combination that licenses pre-possessive adjectives, but the non-referentiality of the possessive form. Thus the S-structure word order in a sentence like Peter is John's new teacher (*Peter is new John's teacher) is forced not merely by a "possessive always first" word order constraint, but once again, by the nature of the possessive form involved--ie., it is a proper name with possessive morphology. Naturally, elimination of compounding as an explanation for the word order facts makes more plausible a syntactic explanation.

What becomes relevant at this point is the claim made in (ii) above; namely, that acceptable readings of a string containing an adjective, a possessive and a noun may differ, depending on the order of the constituents:

(6) a. [some [new [women's suitcases]]]: 'some new suitcases made for women'

?? 'some new suitcases owned by women'

b. [some [women's [new suitcases]]]: 'some new suitcases owned by

women'

'some new suitcases made for women'

(7) a. [some [old [presidents' portraits]]]: 'some old portraits of presidents'

?? 'some old portraits belonging to presidents'

b. [some [presidents' [old portraits]]]: 'some old portraits belonging to

presidents'

'some old portraits of presidents'
If these interpretive data generalize, the interpretation of a string like *fold [Jack's portrait], if it were acceptable, would most likely be 'an old portrait of Jack'. The genuinely possessive interpretation appears to be blocked in the adjective-possessive order in any event. Therefore, the question about why referential possessives (or, in what now appears to be preferable terminology, referential 's-expressions) must always be string initial really turns into the question of what the nature of the word order restriction is; and hence, why old Jack's portrait and new John's teacher are unacceptable expressions for the interpretations 'an old portrait of Jack' and 'a new teacher for John', respectively.

In reply to this question, the syntactic analysis proposed must provide structures for these expressions, as well as respond to the question of what the word order restriction for referential 's-expressions is and how it relates to the various interpretations just discussed.¹

II. First part of the solution

The approach I will take to providing structures for this data relies on the arguments presented in Bernstein (1993), Degraff and Mandelbaum (1993), and Mandelbaum (1994) that although adjectives may sometimes occur adjoined to NP or in Spec of NP, at times they project to AP as complement-taking heads, selecting an NP complement. That various adjectives have transitive occurrences

¹ For a similarly inspired analysis of the syntactic and semantic distinctions between expressions like a picture of John and a picture of John's (involving the notion of proper partititivity), see Barker (1994).
in which they are heads of AP and require a complement will be crucial to the analysis of why the interpretive distinction discussed in section I arises.

In the case of adjectives that may not occur as "bare" predicates, I will follow Degraff and Mandelbaum and Bernstein in assuming a head-complement structure for the adjective and its (complement) noun. In analyzing the predicational structures of these transitive adjectives I will follow L. GraT and Mandelbaum in saying that not only does theta-identification (as employed by Higginbotham, 1985; 1987) apply to the head and its complement noun, but autonomous theta-marking does as well. In autonomous theta-marking the adjective takes the value of the entire NP projected by its complement as the value of an open position it contains. Hence in an example like (8) the value of the autonomous theta-marking position in the adjective old is the NP projected from friend, yielding an interpretation something like 'old with respect to being a friend'.

(8) \[\text{DP an } [\text{AP } \text{old}] \text{NP } [\text{friend}]]\]

Now the question arises as to how this is relevant to examples like new women's suitcases and women's new suitcases.

The interpretation of new women's suitcases is actually something like 'new with respect to being suitcases for women', not 'new with respect to being suitcases, and belonging to women', or 'women's, new, and suitcases'. This fact is critical to the analysis of the example (and others like it) since what we want, now, is a structure that yields the correct interpretation, and not one of the other,
incorrect, interpretations. Given the discussion of autonomous theta-marking above, and that we know that theta-identification yields conjunctive readings, we now must acknowledge that only an autonomous theta-marking structure will yield the acceptable interpretation of new women's suitcases.

Assuming the structures posited in Mandelbaum (1994) I propose that new in new women's suitcases is a transitive adjective, and must at D-structure be in a position to autonomously theta-mark the DP projected from women's suitcases. Thus the D-structure word order for the string is, in fact, new women's suitcases.

\[(9)\] D-structure for new women's suitcases:

\[
\begin{array}{c}
XP \\
/ \ \\
POS \ P \\
/ \ \\
AP \\
/ \\
A \ DP \\
/ \\
new \ NP \ D' \\
/ \\
women \ NP \\
/ \\
's \ N \\
/ \\
suitcases
\end{array}
\]

Now what I want to propose is that the D-structure word order for women's new suitcases is also the one shown in (9), but that the DP [DP women's] may move above new in order to achieve the surface word ordering. This would explain why the ordering with the 's-expression first may retain the meaning of the ordering shown above in (9), and yet achieve the additional possessive meaning not available to the expression that has the adjective first. The reading 'new with
respect to being women's suitcases' arises via autonomous theta-marking at D-structure, prior to the movement of the 's-expression. The actual possessive reading, 'new suitcases belonging to women', arises via the movement of the 's-expression out of DP to the functional projection POSP.²

Hence, \([_{DP} \text{women's}]\) moves up to POSP. The preadjectival position of women's yields the possessive reading due to the filled head of POSP, where POSP is a functional projection. What I am asserting is that in order for the possessive reading to be available in these constructions, POSP may not remain empty. It is also true that once POSP is filled, only an argument interpretation, and not a predicate interpretation, is available for the construction. This follows from Hudson's (1989) "Condition on Saturation", which prohibits internally saturated predicates. Argument noun phrases are forced to have a position for the determiner (here \((\text{women})'s\)) outside the predicative projection. Once the determiner moves to this external position the entire phrase must be an argument.

From the claim I have made that the head of POSP must be filled in order for new women's suitcases to receive a possessive reading, or, alternatively, that the 's-expression must move above the adjective to receive a possessive interpretation, it appears that the naive word order fact we began with is true—in order for a possessive reading to be available for a NP in English, its 's-expression

² See Szabolcsi (1994) for a functional category analysis in which possessors belong to a category distinct from other determiners. See also Holmberg (1993) for a theory in which possessors are subject to a movement analysis, for independent reasons.
must be string initial. So it appears that there is no actual "possessive-adjective switch"; although an 's-expression may be preceded by an adjective in English. Even so, the question remains as to why referential 's-expressions are forced to be phrase initial.

III. Second part of the solution

Suppose we take the construction old womens' suitcases and compare it to *old Jack's suitcases, both semantically and syntactically. In section I we asked why a phrase like *old Jack's portrait is not acceptable, albeit with the non possessive reading 'an old portrait of Jack'. Now there is both a semantic and a syntactic reason why *old Jack's portrait is unacceptable, and these two reasons are closely related to one another.

Taking the semantic approach first, what occurs to us is that it may be a semantic aspect of expressions like women's that allows them to remain embedded in these noun phrases, when clearly 's-expressions to be interpreted as possessives may not remain so embedded. We've already pointed out the indefinite nature of these expressions, in that they are fully acceptable in There-insertion environments. But it is not merely indefiniteness that is salient in the post-adjectival context; it is the restrictive behavior expressions like women's display, on a par with restrictive adjectives, that licenses them in such contexts. However, stated rather generally, expressions like Jack's cannot restrict the relevant class of
objects (here suitcases or portraits) in the way that indefinite 's-expressions (like
women's or presidents') can.

The interpretation of new women's suitcases is something like 'new with respect to being suitcases for women', or, in other words, 'new with respect to the intersection of suitcases and objects for women'. But what then follows is that the interpretation of *new Jack's suitcases is 'new with respect to the intersection of suitcases and objects for Jack'. Yet there is a nonsense class in this alleged interpretation—the class of "objects for Jack". Hence the phrase *new Jack's suitcases seems to fail on interpretive grounds alone. The intuition about its unacceptability, however, seems stronger than is suggested by semantic problem.

In fact, the phrase seems just plain ungrammatical; intuitions seem to inform most speakers that this sort of construction violates some syntactic principle, before they even stop to think about its potential semantics.

The syntactic claim made in section II is that expressions like Jack's, his, MIT's, etc. are forced to move out of the lower DP into a higher functional domain. The semantic argument above supports this claim, but appears too weak to be a sufficient answer as to why the movement is obligatory. To give a more complete response, I want to rely on an old distribution argument that goes back at least as far as the description of noun phrases in Jackendoff (1977).

Consider the following paradigms:

(10) a. women's new suitcases

b. the women's new suitcases
c. new women's suitcases

d. the new women's suitcases

(11)  a. Jack's new suitcases

b. * the Jack's new suitcases

c. *new Jack's suitcases

d. * the new Jack's suitcases

(Note: the idiomatic reading of the new Jack is not the intended reading here)

Now notice that Jack's and women's do not have the same distribution. This may be a trivial descriptive fact, but what it suggests, naturally, is that Jack's and women's do not occupy the same structural position in cases like those in (10) and (11). Suggestions along these lines have already been made in Longobardi (1991) and Giusti (1992), for example. What would seem to be the case is that the final position for Jack's, post-movement, is higher in the tree than for women's. Although this is not a new observation, it does help to explain the very strong intuition that speakers have regarding the ungrammaticality of *new Jack's suitcases and *new his suitcases. If Jack's and his occupy the projection that is occupied by the in the new women's suitcases, it is not surprising these possessives cannot remain embedded in a noun phrase--determiners like the can never be embedded inside a noun phrase. Quite naturally, this leads us back to the original fact regarding There-insertion: It is, at least in part, the indefinite
nature of expressions like *women's* that allows their embedding inside a noun phrase.\(^3\)

Two remarks remain to be made about this descriptive analysis:

(i) What it suggests is that a covert existential or universal operator is present in conjunction with expressions like *women's* when they occur in argument noun phrases—\(\exists / \forall \) *Women's suitcases filled the airplane's hold*—'suitcases belonging to women filled the airplane's hold'.

(ii) The implication is also present that expressions like *Jack's* and *his* can never introduce a predicate noun phrase.

Regarding (i), although I have not researched the further implications of this suggestion, in principle I see no reason to rule out the possibility of a covert operator in such a construction (Abney, 1987, for example, assumes a covert definite determiner's presence in conjunction with any possessive occurrence).

And finally, with respect to (ii), since the issue is far too lengthy to cover here, I refer the reader to Mandelbaum (1994, Chapter 4), where I specifically argue against this implication.

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\(^3\) For the relationship between indefiniteness and restriction in possessive forms, see Mandelbaum (1994). There I posit an adjunction structure for indefinite possessives in predicate positions, following the adjunction structures for restrictive adjectives proposed in Bernstein (1993). Although I do not rule out the possibility of an adjunction structure for expressions like *women's* in the constructions in this paper, for reasons of simplicity I have projected to DP, so as not to conflate the issues.
IV. Cross-linguistic facts

Some interesting data from Finnish lead me to believe that the word order constraint in effect is more universal than might be supposed.

Anders Holmberg informs me that expressions like *new women's suitcases* are unacceptable in Swedish unless the possessive-noun combination is a compound; and the non-head in compounds (even if it is possessive) is non-referential. But he further has provided me with the following data from Finnish, which seem to parallel the facts in English:

(12)  

a. Meille on tullut uudet naisten matkalaukut.  
   to-us have come new-PL women's suitcases  

b. *Meille on tullut uudet Liisan saappaat.  
   to-us have come new-PL Liisa's boots  

In (12)(a) the possessive form is indefinite, whereas in (12)(b) it is a possessive proper name, ruling out the sentence. Further, the following is possible, so that *naisten matkalaukut* does not appear to be a compound:

(13)  

uudet naisten mustat matkalaukut  
new-PL women's black suitcases  

One final example from Finnish is (14), where once again the adjective *vanka* precedes the possessive expression *vaalean oluen va"ri* ("old" precedes "light beer's color"):

(14)  

Vanha vaalean oluen va"ri oli tummempi kuin ta"ma" uusi.  
old light-GEN beer-GEN color was darker than this new (one)
What these data suggest is that referential genitive expressions have special syntactic/semantic qualities based on their referentiality at some fundamental, universal level; and thus their behavior is not a mere idiosyncracy of English word ordering.

References


