## Exceptional degree markers: A puzzle in internal and external syntax\*

## Arnold M. Zwicky

0. Introduction. Most approaches to syntax – especially, but by no means exclusively, monostratal approaches – adopt (whether explicitly or implicitly) very restrictive assumptions about how the external and internal syntax of an expression can be determined.

One of these is the principle of Strictly Categorial Determination below, according to which, both with respect to the external distribution of an expression and with respect to its internal makeup, the only thing that matters about it is its category, its properties as a whole. External syntax cannot 'look into' an expression, nor internal syntax 'look out' from it. (The apparatus of 'X-bar syntax' – see Kornai & Pullum 1990 – can in fact be seen as designed to ensure Strictly Categorial Determination.)

Strictly Categorial Determination: The category of an expression (a) entirely determines its external syntax and (b) is entirely determined by its internal syntax.

Another is the principle of Strictly Local Determination below, according to which syntactic rules look 'out' only at sisters (not nieces, mothers, aunts, or more distant external relatives) and 'in' only at daughters (not granddaughters or more distant internal relatives).

Strictly Local Determination: Both the external and internal syntax of an expression are determined strictly locally – (a) its external syntax by its strictly local external context, that is, by the properties of its coconstituents and its relations to them, and (b) its internal syntax by its strictly local internal context, that is, by the properties of its immediate constituents and the relations between them.

I should point out that nonlocal determination is really troublesome only when there is no finite bound on the distance between the determining and determined elements

<sup>•</sup> My thanks to Yongkyoon No, Geoffrey K. Pullum, and Thomas Veatch for comments on earlier versions of this note. An intermediate version was completed at the Center for Advanced Study in the Behavioral Sciences and delivered as a paper at the 1992 annual meeting of the Linguistic Society of America and then at Indiana University in September 1992; my thanks to the Center for its hospitality and to the Ohio State University for sabbatical year support in 1990-91. This is the version of 3 September 1994, written to honor Paul M. Postal on the occasion of his 60th birthday.

(see No 1990, 1991). For external syntax, for instance, ordinary 'depth-0' rules, in which sister constituents determine one another's properties, can be augmented by a system of depth-n rules, in which one constituent determines properties of an n-depth daughter of another, without any alteration in the stringsets admitted or the tree structures admitted. Nevertheless, there is something especially attractive about a syntactic framework in which the only constituents that can constrain one another are those that are especially close to one another structurally.

In any case, apparent exceptions to one or both principles abound. 'Extraction' constructions, for instance, appear to violate both: a VP with an XP missing somewhere within it has a different external syntax from a VP with no extracted XP, yet both are VPs; and VPs of both types can have immediate constituents that are identical in the relevant respects, as are meet people from (as in Which cities did you meet people from?) and meet people, both composed of a V and its direct object NP. In this case it has been argued that 'missing an XP' is in fact a property of VPs as wholes, that is, that missing-an-XP is one of the features that together can characterize a category; VP and VP-missing-an-XP are distinct categories. In addition, it has been argued that this feature is shared between a mother category and at least one of its daughters, so that missing-an-XP on the VP meet people from is in fact determined by a daughter of this VP, the NP people from (which, on this analysis, is also missing-an-XP), and is only indirectly determined by its great-granddaughter, the missing NP object of the P from. (This is the treatment of extraction in generalized phrase structure grammar, as in Gazdar et al. 1985.)

There is a substantial literature on one large class of apparent exceptions to Strictly Categorial Determination, and usually to Strictly Local Determination as well, namely constructions involving 'shifts' in rank (word, phrase, or clause) or category. (See Subramanian 1991 for a survey of relevant phenomena.) There is, for instance, a rank shift when that-marked finite clauses occur in noun phrase positions, in particular as subjects (That pigs can't fly distresses me) or objects (I concluded that pigs can't fly), and there is a category shift when gerundive verb phrases (Pullum 1991) occur in such positions (Your rebelling against these ideas distresses me, I am distressed at your rebelling against these ideas). In both cases there is a mismatch between the external syntax of a constituent (which is that of an NP in both of these examples) and its internal syntax (which is that of S and VP, respectively), against the predictions made by Strictly Categorial Determination.

Almost invariably, such examples present problems for Strictly Local Determination as well. Note that that-marked clauses don't have the full external syntax of NPs, since they don't occur as objects of prepositions (\*I am distressed at that pigs can't fly), and that gerundive verb phrases don't have the full external syntax of NPs, since they don't have possessive forms (contrast the purpose of your talking to me with \*your talking to me's purpose, and note the acceptability of the person talking to me's purpose). That is, there are restrictions on the distribution of these expressions that will not be accounted for merely by assigning the category NP to them; their external syntax needs to see 'inside' this NP.

In another class of phenomena, only Strictly Local Determination is threatened. These cases involve one constituent's requiring that a sister constituent have a particular lexical item as one of its daughters; the selection is then apparently of a niece. Sometimes these selections seem like idioms; this is the case for English verbs that require particular prepositions marking their objects: rebel against these ideas, adhere to no religion, agree with your objections, resign from their posts, and so on. Sometimes these selections involve 'grammatical words', like the preposition of in a lot of books or the infinitive marker to in I want to go; again, the selection is apparently of a niece. Since

the selection, in both situations, is so item-specific, there is a strong inclination for analysts to treat the determining element and the determined element as forming a syntactic unit (rebel against, a lot of, want to); this inclination is especially strong when the elements are fused phonologically, as in alotta books or I wanna go. Nevertheless, in the interesting cases there is evidence that determined element forms a syntactic constituent with the material that follows it, not with the first element: for instance, the extraction in To which ideas did they stubbornly adhere? and the zeroing in A lot of books were destroyed, but then a lot were saved.

This paper investigates an English construction that appears to run against both principles; it presents some characteristics of the shifting examples and some of the niece-selection examples. An expression like too big is an AdjP with Deg and Adj as its immediate constituents, yet its external syntax is not that of other AdjPs like very big and more extraordinary; instead of combining with N to make N' (as in very big dog, more extraordinary idea), it combines with an NP with the particular determiner a to make NP, as in too big a dog.

These facts about degree modifiers are problematic for Strictly Categorial Determination because on the basis of its internal makeup too big is simply an AdjP, as is very big, yet on the basis of their external distributions the two expressions belong to different categories. In this respect, the construction is much like the shifting examples I mentioned above.

These facts are also problematic for Strictly Local Determination, because too big determines not merely the category NP of its coconstituent, but also internal properties of that NP: the fact that the NP has the immediate constituents Det and N', and that fact that the Det in question is the specific item a. In American dialects with the variant too big of a dog, the nonlocal determination extends through two levels, to the determination both

It was one, maybe two years ago that the woman first noticed it: the way the "of" was showing up where it wasn't needed. She'd overheard somebody describing something as "not that big of a deal."

"Isn't that strange," she mused to a friend, who said promptly: "Not at all. It's a regionalism. After all, New Yorkers are always talking about the Port of Authority."

...Then, however, multiple "ofs" started popping up on her soap opera, a monument to misused words that is taped in Los Angeles. Lunch was not "that big of a meal"; a dress had not "that short of a skirt."

Finally, fast week, the driver of the Eighth Avenue bus announced that the time was 10 A.M., and that it was not "that good of a day."

Clearly, "of" is now something more than a mere preposition. It's a virus.

This variant has not escaped the notice of speakers of other varieties, including both syntacticians (Abney 1987: 324 and Radford 1993: 85) and mildly alarmed nonlinguists, as in this short piece on the New York Times editorial page from Sunday 8 March 1992:

of the P of and also of the Det a. That is, the construction presents the same sort of difficulties as the niece-selection examples I mentioned above.

I will be arguing here that the apparent violations of Strictly Local Determination engendered by exceptional degree modifiers fall in with a large number of other situations in which 'particle words' like the indefinite article a in English mark syntactic constructions. What is called for in such cases is a feature on the relevant mother constituent (for instance, the modified NP in too big a dog), a feature realized on a daughter of this constituent (here, the Det daughter a).

I will also be arguing that the apparent violations of Strictly Categorial Determination have a natural analysis, but not one involving garden-variety determination of features. Instead, what is needed is the ability to refer directly to the specific construction exemplified by an expression.

1. Two types of degree modifiers. Degree modifiers of adjectives in English fall into two groups according to their distribution:

(1) Deg<sub>1</sub>:

very, rather, quite, pretty,... Adj-ly more (...than S/NP) most [absolute] the most (...of NP)/(...that S) not too/so 'not very'

(2) Deg<sub>2</sub>:

so...that S
SO [emphatic], that
as...as S/NP
too (...(for NP) to VP)
more<sup>2</sup> (...than NP) [in negative contexts]
how, however

Adverbs of both groups are available to modify predicate adjectives:

- (3) a. This shrub is very/rather/enormously/most/SO/too impressive.
  - b. These shrubs seem too dense for us to drive through.
  - c. My current class is becoming more inquisitive than last year's.
  - d. How impressive have the candidates been?
  - e. However impressive this shrub is, I still don't want a garden.

The groups split in their behavior with prenominal adjectives, however.

This use of of is presumably an extension of the rule for NPs with quantity (rather than degree) modifiers like more, less, enough, and a bit, in combination with singular count nouns: more of a liar, enough of a linguist, a bit of a charmer. Baker's (1989: 331) version of this rule is '(74) A noun phrase can consist of a quantity phrase followed by an of phrase, where the object of of is a noun phrase introduced by a(n).'

2. The negative-polarity item more that is a Deg<sub>2</sub> modifier differs from the ordinary, Deg<sub>1</sub>, modifier more in other ways: Deg<sub>2</sub> more doesn't alternate with -er (l've never seen more handsome a dog, \*I've never seen handsomer a dog), while the Deg<sub>1</sub> does (l've never seen a dog that was more handsome, l've never seen a dog that was handsomer).

Deg<sub>1</sub> + Adj has essentially the distribution of Adj alone; it combines with a bare N, to yield an expression with the same distribution as that of N.<sup>3</sup> Thus, the expressions in (4a) all have essentially the same distribution, that of singular count Ns; the expressions in (4b) all have essentially the same distribution, that of plural count nouns; and the expressions in (4c) all have essentially the same distribution, that of (singular) mass nouns.

(4) a. shrub, impressive shrub, very/most impressive shrub,....

b. shrubs, impressive shrubs, very/most impressive shrubs,...

c. shrubbery, impressive shrubbery, very/most impressive shrubbery,...

Things are different with Deg<sub>2</sub> + Adj, which has a new distribution. It combines with no bare Ns at all -

(5) a. \*too/how impressive shrub b. \*too/how impressive shrubs

c. \*too/how impressive shrubbery

- but instead combines only with a particular kind of indefinite phrase: an NP with the determiner a, or (in many American English varieties) a partitive PP with such an NP as the object of the P of. Given that the NP must be indefinite count singular, these prenominal modifiers are possible only for singular count Ns:

(6) a. too/how/that impressive a shrub [standard] b. too/how/that impressive of a shrub [dialectal]

One peculiar consequence of these restrictions is an asymmetry in the relationships between statements (as in (7a-c) below) and yes-no questions (as in (7a'-c'). For prenominal adjectives, it is impossible to question degree merely by substituting the Deg<sub>2</sub> WH word *how* for an ordinary (Deg<sub>1</sub>) degree modifier:

(7) a. They saw a very impressive shrub.
a'. \*A (iust) how impressive shrub did they see?

a. \*A (Just) now impressive situd did they see?
b. They saw very impressive shrubs.
b. \* (Just) how impressive shrubs did they see?

c. They saw very impressive shrubbery.
c'. \* (Just) how impressive shrubbery did they see?

For singular count nouns there is a grammatical Deg<sub>2</sub> alternative to the ungrammatical (7a'), as in (8). But there are no such alternatives for (7b') and (7c'); instead, a large-scale shift to a predicative construction, as in (9), is required.

(8) (Just) how impressive a shrub did they see?

(9)
(Just) how impressive was the shrub were the shrubs was the shrubbery that they saw?

<sup>3.</sup> That is, the resulting expression is a phrase, not a word, but it is not NP, since it is syntactically unsaturated — N<sup>2</sup>, or N<sup>1</sup>, in systems where a syntactically saturated non-headed expression is N<sup>2</sup>.

In any event,  $Deg_1$  modifiers act like well-behaved modifiers, while  $Deg_2$  modifiers present a number of puzzles with respect to the relationship between the internal and external syntax of the AdjPs they participate in (which I will refer to as 'AdjP<sub>1</sub>' and 'AdjP<sub>2</sub>', without intending these as anything more than ad hoc labels). The internal syntax of both  $AdjP_1$  and  $AdjP_2$  appears to be simply Deg + Adj, and there is no evidence that I know of, beyond the facts in (4)-(6), that would argue that the  $AdjP_1$  and  $AdjP_2$  have different category or bar-level assignments; both have predicative function, as in (3), and can participate in though-fronting, as in (10).

(10) Rather/Too big though the box was, we tried to lift it.

 $AdjP_2s$ , then, have the following external properties that distinguish them from  $AdjP_1s$ : (A) they combine with NP (or PP), rather than with some bare N-type constituent; and (B1) they require an NP with the indefinite article, though other properties of this NP are free, as the questions in (11) illustrate. In addition, (B2) in dialects where  $AdjP_2s$  combine with PPs, the P must be the (partitive) of, and requirement (B1) must still be satisfied for the object of this P.

(11) How big a (kind of) new shrub from France were you thinking of buying?

These properties present two different sorts of theoretical difficulties. What property (A) means is that  $AdjP_2s$  are exceptions to the generalization that the external distribution of an expression type is predictable from the distribution of its head – on the assumption, of course, that Adj is the head in  $Deg_2 + Adj$  as well as in  $Deg_1 + Adj$ . The distribution of  $AdjP_2$  is determined in part by its Adj constituent, in part by its Deg constituent. What properties (B1) and (B2) mean is that a determining element ( $AdjP_2$ , here) can place requirements on a niece (a in how big a problem, of in how big of a problem) or even a grand-niece (a in how big of a problem), as well as on a sister. Both of these theoretical difficulties have parallels that have been extensively treated in the syntactic literature.

2. Partitive uses of of. I'll take the properties up in reverse order. Property (B2) is familiar from the many instances of 'grammatically used' Ps in the languages of the world. Indeed, English has plenty of other grammatical uses for the P of, including a wide variety of constructions in which a PP headed by of combines with a constituent of category N, as in (12). The quantifier constructions in (12a-d) are especially interesting here, in that they exhibit both different requirements on the object NP (in (12a,b) this can be any definite NP, while in (12c,d) only certain sorts of bare-N objects are permitted) and also different conditions on the occurrence of of (in (12a,c), of is obligatory, while in

<sup>4.</sup> Baker's (1989: 327) rules for prenominal modifiers simply stipulate the indefinite article and the class of exceptional degree modifiers, and in fact mention the Deg<sub>2</sub> class twice:

<sup>(58)</sup> A common noun phrase can consist of an adjective phrase followed by a smaller common noun phrase, with the following restriction: The adjective phrase must not include a complement and must not be introduced by as, so, that, or too.

<sup>(59)</sup> A noun phrase introduced by a(n) can be combined with a preceding adjective phrase introduced by one of the degree words as, so, that, and too to form a larger noun phrase.

(12b,d) there are alternatives without of, and in still other constructions, like every problem, there is no alternative with of).

(12) a. a few/lot of these problems, two/some of your best friends

b. both (of) these problems, all (of) your best friends

c. a lot of problems/nonsense

d. a couple (of) problems

e, a cup of tea, three sheets of paper

f, a skirt of leather, a desk of teak

g. a vase of flowers, a garden of weeds h. the problem of bank failures

i. the department of student affairs

j. the secretary of the society

k. the last pages of my novel

I. a friend of my cousin's

m. a photograph of my dog

n. the restoration/restoring of old paintings by artisans

o, the disappearance of the dodo, the singing of my friends

What we want, here and in a great many other situations, is a general scheme for describing the selection of PPs with particular (grammatically used) head Ps. This is achieved by treating the Ps in question as parallel to inflections on NPs, that is, as the realization of a case feature on PPs. Noting the use of of in (12n,0) to mark direct objects of transitives and subjects of intransitives, and observing that of seems to be the default, general-purpose, P in English, I will use the label Absolutive for the case of PPs with of as head. (Nothing that is crucial to this discussion hinges on the label, or on my decision to posit only one case flagged by of, rather than several.) The constructions in (12) then all involve the combination of an N-headed constituent and a PP[Case: Absolutive], and NPs like those in (6b) - dialectal toolhowlthat impressive of a shrub - involve the combination of an Adj-headed constituent and a PP[Case: Absolutive].

- 3. Selection of the article a. Property (B1), the selection of NPs with the particular determiner a, is again an instance of a much more general phenomenon, the selection of XPs with particular specifiers in them. This is what is going on in constructions requiring marked infinitives, that is, VPs with the specifier to, as in (13). It is also what is going on in the selection of predicative (nonreferential) NPs in (14), where singular count NPs must have the determiner a, and in the selection of NP sisters to the exclamatory determiners such and what in (15), where again singular count NPs must have the determiner a; in neither case will a bare N do, nor will some other indefinite NP.
- am to leave soon, try to sing, expect them to be angry,... (13)
- (14) a. be a poor spy b. \*be poor spy
  - c. \*be one poor spy5
- (15) a. Such/What a (good) dog! b. \*Such/What (good) dog! c. \*Such/What one (good) dog!

<sup>5.</sup> The NP in (14c) is to be read with unaccented one; one here is the ordinary, nonexclamatory quantifier. The exclamatory NP in Kim is ONE poor SPY needs a separate analysis.

In such cases, we take the particular specifier to be the reflex of a grammatical category on XP, just as we took a particular grammatically used P to be the reflex of a grammatical category on PP. For infinitival to, for instance, Gazdar et al. (1985) take the specifier to be a reflex of the feature value VForm:Inf on VP; this feature value is governed by particular classes of verbs as in (13), or is otherwise selected in particular constructions (infinitival complements, infinitival relatives, infinitival purpose clauses, and the like). A parallel treatment of the singular count NP examples in (14) and (15), and in (6a) above (toolhow/that impressive a shrub), takes the specifier a to be a reflex of a feature value on NP (say, NForm:Indef; again, the label is not important, so long as this feature value is kept distinct from whatever distinguishes indefinite from definite NPs in general); this feature value is governed by AdjP<sub>2</sub> in (6a), governed by a particular class of determiner Ns in (15), and selected in the predicative construction in (14).

The feature value VForm:Inf is part of a system of values for VForm (the rest of which are realized by inflectional morphology rather than by a separate word) and of values for other features for V (among them, a feature distinguishing finite VPs from nonfinite ones). Although it is not my purpose here to give a full description of NPs and their features, I do want to point out that the feature value NForm:Indef is also part of a system of other values (NForm:Def, for instance, realized by the article the) and other features. In particular, NForm:Indef interacts with such other NP features as Count and Number to give the paradigms in (16) for the predicative construction and in (17) for the exclamatory determiner construction. The AdjP<sub>2</sub> construction differs from these in governing not only NForm:Indef but also Count:+ and Number:-, as illustrated in (18).

- (16) a. be a poor spy
  - b. be poor spies
  - c. be human rubbish
- (17) a. such/what a good dog
  - b. such/what good dogs
  - c. such/what nice shrubbery
- (18) a. too/how impressive a shrub
  - b. \*too/how impressive shrubs
  - c. \*too/how impressive shrubbery

We have already seen other instances of NForm:Indef, on plural count and singular mass NPs, in the quantifier constructions of (12c) (a lot of problems/nonsense) and (12d) (a couple (of) problems).

4. Determination at two levels. We are not quite finished with (B1) and (B2), however. Dialectal variants of the AdjP<sub>2</sub> construction (too big of a problem) and quantifier constructions like a lot of problems still appear to involve the determination of properties on a niece rather than on a sister, since in both a modifier phrase (AdjP too big, determiner NP a lot) determines not only a feature value, Case: Absolutive, of its sister but also a feature value, NForm: Indef, of one of the constituents of that sister, namely the NP object of of.

Once again, the problem is not some small detail in the analysis of a couple of English constructions. As I note in Zwicky (1992), it seems to be a general property of case-marking by Ps that the Ps are mere flags of the case and that the external syntax of such PPs follows from the properties of the NP objects in them (except of course for the requirement that particular Ps be present). In particular, verbs show agreement with features of such P-flagged NPs. What we have in too big of a problem and a lot of

problems is the expected counterpart to these agreement facts: government of features on P-flagged NPs.

It is not entirely clear what sort of general account should be given for these characteristics of P-flagged NPs. In Zwicky (1992) I provide a scheme for using the Head Feature Convention and the Control Agreement Principle of Gazdar et al. (1985) to this end. This scheme also relies on the fact that NP and PP together constitute a category, [V:-]P; values of the Case feature are assigned to this category, which is then further specified as [N:+] or [N:-] depending on which value Case has. The category [V:-, N:-]P (= PP) branches into [V:-, N:-] (= P) and [V:-, N:+]P (= NP), and the other [V:-, N:-]P are distributed some to the P daughter and some to the NP daughter. In particular, a PP with the feature values Case: Absolutive and NForm: Indef should have the former distributed to its P daughter and the latter to its NP daughter.

In Zwicky (1993) I suggest that the problematic characteristics of grammatically used Ps are in fact shared with a number of other classes of constructions, all of which have fallen under the umbrella of 'specifiers' in the recent syntactic literature: auxiliaries in combination with main verbs, determiners in combination with main nouns, and complementizers in combination with clauses. My conclusion in this more recent paper is that these problematic constructions involve two constituents, one of which bears certain characteristics of the central element in the combination, the other of which bears certain other such characteristics. For P-flagged NPs, we want to say that the P can govern the NP and agree with it (and therefore acts like the 'head' internally), but that the NP can also be governed externally and can control agreement on external constituents (and so acts like the 'head' externally). Such a proposal connects the analysis of P-flagged NPs to the analysis of a variety of other construction types, but in itself provides no mechanism for the distribution of features.

5. Apparent non-local effects of  $Deg_2$ . Up to this point, I have used 'AdjP<sub>1</sub>' and 'AdjP<sub>2</sub>' as ad hoc labels for the distinction between AdjPs with modifier daughters that are  $Deg_1$  and those with modifier daughters that are  $Deg_2$ . In contrast, the distinction between  $Deg_1$  and  $Deg_2$  is a genuine (sub)category distinction. What makes property (A), the fact that AdjP<sub>2</sub>s combine with NP or PP rather than with a bare N-type constituent, problematic is that AdjP appears to 'inherit' this distributional peculiarity from a ( $Deg_2$ ) modifier, rather than from its head Adj.

Given the discussion that has just preceded, a natural suggestion to make is that the Deg<sub>2</sub> + Adj construction is another one in which the characteristics of the 'head' are split between two constituents. The suggestion would be that Deg<sub>1</sub>s are ordinary modifiers, but that Deg<sub>2</sub>s are specifiers, and have some 'head' characteristics – at least the characteristic of participating (as the governor) in external government. This proposal would be hard to square with the fact that the Adj, in Deg<sub>2</sub> as well as Deg<sub>1</sub> combinations, does most of the work in determining the external distribution of an AdjP. Whether an AdjP is attributive only, predicative only, or both (see the survey in Quirk et al. 1985; secs. 7.31-39) is determined by the Adj in it; the attributive-only Adjs in (19a) remain attributive-only when modified by Deg<sub>1</sub> as in (19b) and by Deg<sub>2</sub> as in (19c), and similarly for the predicative-only Adjs in (20a).

(19) a. a clear failure, a strong opponent, an occasional visitor
b. a very clear failure, a most strong opponent, a not so occasional
visitor
c. so clear a failure, that strong an opponent, how occasional a visitor

- a. be faint, be afraid, be fond of nuts
  - b. be extremely faint, be most afraid to speak, be not too fond of nuts
  - c. be as faint as Pat, be too afraid, be so fond of nuts that they'll eat acorns

Instead, the Deg<sub>2</sub> facts should be seen as falling in with a large number of other situations in which the external distribution of a constituent is determined in part by the specific construction the constituent is an instance of. Properties of head words (in any of the senses of 'head') make a contribution to the external distribution of constructions, but they are not the sole determinants, and sometimes they are virtually irrelevant.

Consider, for example, the distribution of passive VPs like those in (21), or fronted-WH clauses like those in (22).

- (21) made in America, not constructed by elves, given little money
- (22) what the butler saw, when I gave them the money, how we sang

The head V of a VP in (21) has properties that contribute to determining the distribution of the VP, in particular, to determining its ability to occur as a complement to the verbs be and get: its past participle inflection and its membership in a particular subcategory of transitive Vs. But the absence of a direct object also makes a contribution; made these automobiles in America cannot be a passive VP. What makes a constituent a passive VP is an assemblage of properties that can be manifested in several different places. The point is even more striking for the clauses in (22), where the properties of the head V have little to do with determining their distribution, in particular, with determining their ability to occur as objects of verbs like wonder, ask, and realize. The main thing that makes a clause a fronted-WH clause is its initial WH-containing phrase, and that is a specifier rather than a head.

Instead of rigging things so that a VP can 'inherit' the property of being passive from its head, or that a clause can 'inherit' the property of being a fronted-WH clause from a non-head constituent, what we want to say is that certain other constructions call for certain specific subconstructions (see Zwicky 1987, 1989, 1994). Thus, a rule describing VPs composed of a head V be or get and a VP complement to that head will require that the VP complement be an instance of Construction 55, the passive VP construction. And a rule describing VPs composed of a head V (in a rather large class of verbs of speech and mental action) and a clausal object of that head will require that the object be an instance of Construction 167, the fronted-WH-clause construction.

What we then want to say about Deg<sub>2</sub> + Adj combinations is not that the AdjP. 'inherits' some property from its Deg<sub>2</sub> constituent, or that the Deg<sub>2</sub> constituent is in any sense a 'head', but that there are two distinct rules combining AdjP and an N-type constituent, the first of which calls for an AdjP that is an instance of Construction 235 (the Deg, modification construction), the second of which calls for an AdjP that is an instance of Construction 470 (the Deg<sub>2</sub> modification construction). In somewhat more

- Construction 236: N' can have as constituents a Construction 235 AdjP and a (23)bare N: very impressive + shrub.
- Construction 471: NP can have as constituents a Construction 470 AdjP and an (24)NP[NForm:Indef, Count:+, Number:-]: too impressive + a shrub. [standard]

Construction 471': NP can have as constituents a Construction 470 AdjP and a PP[Case: Absolutive, NForm: Indef, Count:+, Number:-]: too impressive + of a shrub. [dialectal]

- Postnominal modifiers. One consequence of allowing direct reference to specific constructions is that the same construction can be called in more than one rule. Multiple invocations (Zwicky 1989) of the same construction are in fact quite common. For instance, the various interrogative, clause-initial focus, and subjunctive sentence types in (25) all invoke the subject-auxiliary inversion construction.
- (25) a. Have you seen Terry?
  - b. You haven't seen Terry, have you?
  - c. Who have you seen?
  - d. I saw Terry, and so did you.
  - e. Not a person have I seen.
  - f. Had I seen more people, I would have stayed.
  - g. May we never see another day like this one!

As it happens, the Deg<sub>2</sub> modifier construction (Construction 470) is invoked by at least one rule in addition to the one for NPs like too big a dog (Construction 471). This is a rule for one type of postnominal modification.

There seem to be four relevant generalizations about postnominal AdjPs. (There are additional generalizations for other types of postnominal modifiers, including relative clauses, participial VPs, and adverbials.) The first of these is that postnominal AdjPs must be licensed as predicative AdjPs; attributive-only AdjPs like those in (19a) do not occur, in the appropriate senses, postnominally, and (with only a handful of types of apparent exceptions) there are no postnominal AdiPs that cannot occur predicatively:

- (26) a. \*a visitor more occasional than most, \*an opponent too strong to resist 'someone who opposes too strongly to resist'
  - b. many people fond of nuts, two friends afraid that the world would end

The remaining generalizations presuppose this association between predicative occurrence and postnominal occurrence. The second generalization is that for the compound indefinite pronouns (anyone, nobody, something, etc.) a modifying AdjP must be postnominal, but otherwise can be any available AdjP, even a single word; contrast the (grammatical) AdjPs following indefinite pronouns in (27a) with the (ungrammatical) ones following indefinite NPs with nonpronominal heads in (27b):

(27) a. anything useful, no one tall, someone extremely entertaining, everything helpful to the homeowner, nobody that tall b. \*any proposal useful, \*no person tall, \*some linguist extremely entertaining

The third is that any available AdjP containing a complement can be used as a postnominal modifier, as in (28a). In general, postnominal AdjPs without a complement, even if they have premodifiers to make them longer, heavier, or more complex, will not do; see (28b).

(28) a. many faces bright with joy, a linguist more impressive than

Chris, several candidates too impressive to ignore

b. \*many faces very bright, \*a linguist most impressive, \*several

candidates not especially impressive, \*a person more impressive

The fourth generalization – the one of interest in this note – is that  $AdjP_2$  postmodifiers are always acceptable, even if they don't have complements:

(29) any person so/that/as impressive, no linguist more impressive, any candidate too tired

Here we have another rule that refers to Construction 470 AdjPs.

7. Conclusion. I have now argued that the apparent failures of Strictly Local Determination in  $AdjP_2s$  involve the government of features by a functor (modifier) constituent on a nonfunctor (modified) coconstituent. These features include Case:Absolutive and NForm:Indef.

All the fundamental theoretical assumptions of this part of the analysis receive support from a variety of phenomena in a number of languages: use of values of the feature Case to describe 'grammatical' adpositions as well as inflections; reference to an XForm feature in describing types of XPs; realization of an XForm feature in grammatical marker words, or flags, as well as in inflections; the possibility that in relationships of government and agreement, grammatical adpositions are transparent, or disregarded; recognition of very eccentric subcategories of major categories like V and N, including one-member subcategories; a split between a functor XW 'head' constituent and an XP 'base' constituent (both of them head-like in one way or another) in certain sorts of specifier constructions; and the possibility that such a head can govern features on its base.

I have also argued that the apparent violations of Strict Categorial Determination in AdjP<sub>2</sub>s involve the selection of constituents exemplifying specific constructions (Construction 235, Construction 470).

Having one construction invoke specific other constructions in this way is, like the other theoretical assumptions in my analysis, supported by a variety of phenomena in a number of languages. It is argued for by Zwicky (1987, 1989, 1994), Välimaa-Blum (1989), and Kuh (1990), in an approach that has developed from GPSG, and it is central to the 'construction grammar' of Fillmore and his associates (see Fillmore 1988 and Lambrecht 1990 and items cited by them), which has developed separately; see also Manaster-Ramer 1987 and Zadrozny & Manaster Ramer (1990).

It is true that the individuation of (and reference to) constructions in this fashion runs directly counter to much 'principles and parameters' and 'minimality' work of recent generative syntactic theory, but Pullum & Zwicky (1991), at least, argue that the elimination of parochial (that is, language-particular) constructions in favor of universal principles (plus parochial parameter settings) is exactly the wrong theoretical move to make.

This paper is thus another chapter in the great book of parochial constructions – understanding, of course, that the component syntactic conditions of a parochial construction will themselves be chosen from an inventory of possible syntactic conditions that is universal. And this paper continues the line of research initiated by Perlmutter & Postal's (1977) constructional analysis of the passive, in explicit opposition to versions of

generative syntax that dissociate the formal conditions in a construction from one another and from the semantics they jointly convey.

## REFERENCES

Abney, Steven P. 1987. The English noun phrase in its sentential aspect. Ph.D. dissertation, MIT.

Baker, C. L. 1989. English syntax. Cambridge MA: MIT Press.

Corbett, Greville G.; Norman M. Fraser; & Scott McGlashan (eds.). 1993. Heads in grammatical theory. Cambridge: Cambridge Univ. Press.

Fillmore, Charles J. 1988. The mechanisms of "Construction Grammar". BLS

14.35-55.

Gazdar, Gerald, Ewan Klein, Geoffrey Pullum & Ivan Sag. 1985. Generalized phrase structure grammar. Oxford: Basil Blackwell.

Kornai, András & Geoffrey K. Pullum. 1990. The X-bar theory of phrase structure. Lg. 66.1.24-50.

Kuh, Hakan. 1990. Toward an adequate account of the interaction between inflection and word order. Ph.D. dissertation, Ohio State University. Lambrecht, Knud. 1990. "What, me worry?" - 'Mad Magazine sentences' revisited.

BLS 16.215-28.

Manaster-Ramer, Alexis. 1987. Dutch as a formal language. L&P 10.221-46.

No, Yongkyoon. 1990. On the weak generative capacity of depth-n grammars. Seoul International Conference on Natural Language Processing '90, 17-26. No, Yongkyoon. 1991. Case alternations on verb-phrase internal arguments. Ph.D.

dissertation, Ohio State University.

Perlmutter, David M. & Paul M. Postal. 1977. Toward a universal characterization of passivization. BLS 3.394-417. Revised version 1983. David M. Perlmutter (ed.), Studies in relational grammar (Chicago: Univ. of Chicago Press), 3-29.

Pullum, Geoffrey K. 1991. English nominal gerund phrases as noun phrases with verb

phrase heads. Linguistics 29.763-99.

Pullum, Geoffrey K., & Arnold M. Zwicky. 1991. Condition duplication, paradigm homonymy, and transconstructional constraints. BLS 17.255-66.

Radford, Andrew. 1993. Head-hunting: On the trail of the nominal Janus. Corbett et al. 1993, 73-113.

Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech & Jan Svartvik. 1985. A comprehensive grammar of the English language. London: Longman. Subramanian, Uma. 1991. On external and internal syntax mismatches. Ph.D.

dissertation, Ohio State University.

Välimaa-Blum, Riitta M. 1989. Finnish existential clauses-Their syntax, pragmatics, and intonation. Ph.D. dissertation, Ohio State University.

Zadrozny, Wlodek & Alexis Manaster Ramer. 1990. Expressive power of grammatical formalisms. COLING-90, 195-200.

Zwicky, Arnold M. 1987. Constructions in monostratal syntax. CLS 23.1.389-401.

Zwicky, Arnold M. 1989. What's become of derivations? Defaults and invocations.

BLS 15.303-20.

Zwicky, Arnold M. 1992. Jottings on adpositions, case inflections, government, and agreement. Diane Brentari, Gary Larson, and Lynn MacLeod (eds.), The joy of grammar: A Festschrift for James D. McCawley (Amsterdam: John Benjamins), 369-83.

Zwicky, Arnold M. 1993. Heads, bases, and functors. Corbett et al. 1993, 292-315. Zwicky, Arnold M. 1994, Dealing out meaning: Fundamentals of syntactic

constructions. BLS 20.612-25.