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EXTENT IN ENGLISH: A UNIFIED ACCOUNT OF DEGREE AND QUANTITY.

UNIVERSITY OF CALIFORNIA, LOS ANGELES, PH.D., 1979

UNIVERSITY OF CALIFORNIA

Los Angeles

Extent in English: A Unified Account of Degree and Quantity

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Linguistics

by

Edward Norman Gary

1979

This dissertation of Edward Norman Gary is approved.

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1979

In memory of

Nan Olmsted,

who gave me not only her delightful daughter, but also her own love, warmth and laughter,

and

my mother and father, Irene and Jesse Gary,

both of whom so wanted me to finish my education and worked so hard toward that end--not realizing it would take quite so long.

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I would like to acknowledge a deep debt to George Bedell, who taught me how to do syntax, although, after reading this dissertation, he may want to disclaim that credit. Professor Bedell served as my

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To Marianne Celce-Murcia I owe much patient and painstaking reading of a very long manuscript over a period of two years and often on very short notice. The thesis has profited both stylistically and linguistically from her comments, as well as from her own work on similar problems.

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Dwight Bolinger will be acknowledged as spiritual god-father to this work in the Preface. However, in addition to the influence of his linguistic work, he has shown much personal warmth and encouragement to me as a working linguist.

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ABSTRACT OF THE DISSERTATION

Extent in English: A Unified Account of Degree and Quantity

by

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Doctor of Philosophy in Linguistics

University of California, Los Angeles, 1979

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This dissertation argues that degree and quantity modifiers should be analyzed as different manifestations of a single grammatical category EXTENT. There are a number of lexical items which occur in superficial structure as both degree modifiers and quantity modifiers: more, enough, much, a lot, lots, a bit, etc. There are also a number of degree constructions which are very similar in structure to quantity counterparts. Furthermore, there are many syntactic phenomena which are exactly parallel in degree and quantity constructions.

In Chapter One EXTENT is defined, and there is a systematic presentation of the occurrences of degree and quantity modifying nominals, verbs, adjectives, and adverbs, thereby providing a conceptual framework for discussing degree and quantity in terms of the common category EXTENT.

Chapter Two explores simple EXTENT. First, degree modifiers are examined in terms of degree of lexicalization, semantic function, and cooccurrence restrictions. There is an analysis of negation with degree, and two types of negative effect are posited: extremity negation and reversal negation. Then using Horn's (1972) notion of suspension of scalar values, it is shown that degree modifiers can be ranked into a Hierarchy of Suspension and assigned valences: 4 positive and 1 negative. These valences provide insight into the behavior of negation with degree and into many cooccurrence restrictions.

Quantity is then analyzed, and it is seen that quantifiers exhibit the same valence and negative characteristics as the degree modifiers. This provides support to the thesis that degree and quantity are unitary in function.

Chapter Three explores complex EXTENT, i.e., those degree and quantity modifiers which have complements which are obligatorily associated with the head modifiers. The degree modifiers are categorized as resultative (so, such, too, and enough) and comparative/superlative (more, as, most) and analyzed by function and distribution. So and such are shown to be closely related, and they both differ fundamentally from the other complex markers; they are solely referential in nature, while the others are meaningful. The fact that so and such serve only referential functions restricts their occurrences in various clause types in ways that the other complex types are not restricted.

The resultatives and comparatives are then compared across types, and unexpected similarities in terms of meanings, valency, and distribution emerge.

Finally it is shown that the complex degree cases have exact parallel structures in complex quantity modification. And both degree and quantity share many syntactic characteristics, including: question forms, exclamatory forms, anaphoric forms, and a number of transformations. At this point the thesis is assumed proved: degree and quantity are related, and they are both manifestations of EXTENT.

Chapter Four considers various problems related to the linguistic representation of EXTENT. There is a discussion of the relationships between lexicon and syntax in accounting for EXTENT, and it is concluded that many simple degree and quantity modifiers are highly irregular and collocational in nature, and they cannot be derived from other predicate sources.

Next two previous analyses which have discussed degree and quantity together are examined: the comparative analyses of Celce-Murcia (1972) and Bresnan (1973). Problems are found in both analyses. Then an alternative analysis is proposed. EXTENT--both simple and complex--is basically of the form:

where the specifier stands for elements such as very, quite, so, more, how, etc., and Q stands for quantifier-like elements such as much, many, lots, a bit, etc. In conjunction with other rules, this structure can provide a simple and unified account of both degree and quantity. Some of the rules which are needed to account for different surface manifestations of EXTENT are discussed.

PREFACE

Officially I began this work on April 1 (1975), a date many of my friends thought singularly appropriate for launching a work which would try to deal with adverbs, quantifiers, and negation. In a way I have been working on the topic since 1970, when I wrote an analysis of Bowers (1968). At that time I briefly raised the question: 'Could it be that adverbs of degree are to verbal constructions as quantifiers are to nominals?' (Gary 1970, 20)--a question which lies at the heart of this dissertation. What at that time was an intuition dimly perceived through a frustratingly high ratio of surface structure diversity to linguistic generalization has continued to intrigue (and baffle!) me. What sense I have been able to make of it the reader will have to decide for himself.

Anyone familiar with Bolinger's Degree Words (1972) will recognize the debt I owe to that work. By the time I had read Degree Words in 1973, I had already invested so much time in the topic that I considered it my own as well as Bolinger's. Without the publication of Degree Words, this dissertation would have been far easier to write, but I would like to think it would have been a far more superficial piece of work.

Bolinger's influence will be apparent throughout, especially in the first section of Chapter Two. Inevitably, when two or more people are exploring the same linguistic area, they will arrive independently at certain observations and analyses. In fairness to both Bolinger and myself, I have tried to note wherever I have consciously built directly

on his insights. In general, when I give a citation in the text itself for an observation or crucial example, I am aware that I learned this from Bolinger's prior work. If I have unconsciously overlooked places where I have built directly on Bolinger's work, I gladly acknowledge them here. Because Degree Words is cited so often, references to it are given as DW.

A brief word on terminology is in order here. I have tried to use the terms collocational and selectional in contrast to each other. Both terms are used to describe cooccurrences holding between lexical structures. Selectional is used to describe those cooccurrence relationships in which we can see a binding pattern at work, such as the animacy/inanimacy distinction which accounts for such distributions as the dog drowned, the fly drowned versus *the log drowned or the completive/non-completive distinction at work in completely destroyed, completely filled versus *completely 6 feet long, *completely sick. Collocational, on the other hand, is used to describe cooccurrences where a pattern is not evident. Halliday (1966) cites examples with the semantically related adjectives strong and powerful. We can say a strong argument or a powerful argument without much meaning difference being detected; a powerful car is acceptable while *a strong car is unacceptable, at least in the same sense, although strong car might be used in the different sense of a car which is very rugged--a meaning not contained in powerful car. And then again, we may speak of strong tea but not *powerful tea, while both strong medicine and powerful medicine may be equally acceptable in certain uses. The point is that there is no binding pattern to explain these differences in distribution. As

Bolinger describes collocational restrictions: 'We don't say it because we don't say it' (1975, 102). These two terms--selectional and collocational--then will be used to distinguish between two kinds of cooccurrence relationships, even though ultimately the difference between the two types is almost certainly gradient in nature.

Finally, one word about the examples offered throughout to support various arguments or analyses. Many of the examples may have varying acceptability, depending on the reader's own intuitions or--more importantly, especially when the anaphoric forms are discussed in Chapter Three--the presuppositions surrounding the examples. Wherever possible I have tried to provide multiple examples to illustrate points. It is not necessary for the reader to agree on all grammaticality assignments. It is sufficient if the general pattern is confirmed by the examples offered.

Cairo, Egypt
June 1979

Syntax--it's all in the mind!

--Ronald Levesque

INTRODUCTION

Degree and quantity modifiers show an extraordinary number of parallels in structure and distribution. For example, there are a number of lexical items in English which function as either degree or quantity modifiers. The following examples illustrate some of these uses, with degree illustrated in the (a) examples and quantity in the (b) examples:

1. a. She's been a bit sick this last week.
   b. I'd like a bit of that chocolate on my ice cream.

2. a. That picture is a lot nicer than this one.
   b. He owns a lot of land in Bosque County.

3. a. He's just enough an idiot to do that.
   b. We've got enough water to last till summer.

4. a. Max was more foolish than anyone expected.
   b. We've got more inventory than we can carry.

5. a. He acted such a fool! (= so foolish)
   b. You never saw such people! (= so many people)

There are some lexical items which can perform both functions if there is a much (or many) in the modificational structure, e.g.:

6. a. I am very much afraid you can't attend.
   b. We don't expect very much trouble from him.

7. a. If he's so much faster, why didn't you recruit him?
   b. We caught so many fish, we couldn't eat them all.

8. a. She's too much of a snob to do that. (= too snobbish)
   b. She has too much money to worry about that.

There are a number of types of constructions where degree modifiers and quantity modifiers show parallels in structure. For example, they form questions in similar ways: they use the same question word, how, and both the question word and the head of the construction must be fronted, e.g.:

9. a. How fast did he run? (cf *How did he run fast?)
   b. How many copies did he get?
      (cf *How did he get many copies?)

Similarly with how exclamations, e.g.:

10. a. How fast he ran!
    b. How many copies he got!

Both degree and quantity take the same anaphoric form, e.g.:

11. a. Did you know she was that sick?
    b. Did you know he got that many copies.

And there are a number of other parallels in form and function between degree and quantity which will be illustrated at length later.

All of these lexical and syntactic similarities have led me to think that degree and quantity are closely related to one another linguistically. This dissertation argues that degree and quantity modification are highly unitary in form, function, meaning and syntactic behavior. It is argued that they are manifestations of the same grammatical category--EXTENT. The remainder of this work is an attempt to offer support for this thesis.

The first chapter defines just what might be meant by EXTENT and examines occurrences of EXTENT across all grammatical categories. The second and third chapters divide the discussion of EXTENT into simple and complex EXTENT, respectively. The complex cases are those which

are obligatorily associated with certain kinds of complement constructions, which include so, such, too, enough, more, as, etc. It is argued that the complex cases really form sub-sets of the simple cases analyzed in the second chapter. In the fourth chapter, there is a discussion of how EXTENT might be represented linguistically, including a discussion of two contrasting but complementary previous analyses--one abstract and one concrete. Finally an analysis is posited which attempts to provide a syntactic framework for the many varied forms which EXTENT assumes in English.

Without further ado, shall we begin?

'Clearly', the Time Traveller proceeded, 'any real body must have extension in four directions: it must have length, breadth, thickness, and--duration ... There are really four dimensions, three which we call the three planes of Space and a fourth, Time.'

- H.G. Wells
The Time Machine

CHAPTER ONE. On the notion EXTENT

We will have need throughout what follows to refer to the concepts embodied in the notion EXTENT. And we would do well to try to characterize this notion in as much detail as we can. If linguistic objects were as simple to describe as Wells' Time Traveller assumed a 'real body' was, then characterizing linguistic EXTENT would be a straightforward task. However, not surprisingly EXTENT poses considerable more difficulty in characterization than his 'real' bodies. Here I will try to sketch the parameters of EXTENT for an analysis of English.

The term EXTENT will be used to describe both concrete and abstract qualities which may be viewed as extensible--that is, extended in space, time, instance, amount, volume, weight, intensity, and degree, to name the most obvious possibilities. For example, just using the noun extent itself, we can see the diversity of qualities which might be covered by the notion EXTENT:

1. a. The extent of the President's tenure is 4 years.
   b. The extent of our storage capacity is 100,000 bushels.
   c. The extent of his wealth is beyond imagination.

2. a. The extent of his grief is very great.
   b. The extent of her concern is enormous.

3. a. The extent of the blade's sharpness is determined by the alignment of the molecules.
   b. The extent of his incompetence was unbelievable.

In some of these examples extent could be replaced by quantity (or its appropriate substitutes like amount or number), and in others it could be replaced by degree. For example, only quantity can substitute for extent in the sentences of (1), and only degree can substitute in (3). In (2) we can substitute either quantity or degree. Thus EXTENT may be used to describe the QUANTITY or the DEGREE associated either inherently or attributively with lexical items and lexical combinations.

Both degree and quantity may be described as scalar modifiers or predicates. This is immediately obvious with the degree modifiers and perhaps less obvious on first inspection of quantifiers. To say any of the following is to make an assertion about the relative place on an indefinite scale with respect to the quality described, e.g.:

4. a. John is very tall.
   (far on the tall end of the short/tall scale)
   b. I'm so mad I could eat nails.
   (far on the mad end of the calm/mad scale)
   c. If you aren't too busy, I'd appreciate a minute of your time. (somewhere below the extreme end of the unoccupied/busy scale)
   d. He made a bit of an ass of himself last night.
   (on the ass end of the non-ass/ass scale)
   e. He is a total idiot. (at the extreme end of the idiot end of the non-idiot/idiot scale)

With quantifiers the same sort of scaling is possible. Consider these examples:

5. a. He owns many acres of land in Arizona.
   (far on the many end of the few/many scale)
   b. Carter made a lot of promises.
   (far on the a lot end of the a little/a lot scale)
   c. We brought only a little luggage.
   (far on the a little end of the a little/a lot scale)

There is scaling in the ordinal numbers, e.g.:

6. He is the fourth kid in our class to make the team.
   (holding 4th position on the 1st - nth scale, where n = number in class)

And perhaps less obviously, the cardinal numbers represent scalar values,[1] e.g.:

7. a. He has $200 on him right now.
   b. I'll bet he doesn't have 15 cents to his name.

Cardinal numbers by their very nature mark off one place on an infinitely long positive and negative scale-- the scale of real numbers.

Furthermore, both degree and quantity EXTENT reveal directionality in their assertion of scalar values. This directionality can be illustrated most easily using cardinal numbers. In a sentence like:

8. John is 100 years old.

it is necessarily entailed that John is at least any positive number less than 100 as well as 100. But it is not necessarily entailed that he is exactly 100 years old; he can be older. Thus there are the following possibilities for continuations of (8):

a. *if he's not 90.
b. { if he's not 110.
   and maybe he's 110.
   and it's possible he's 110. }

These possibilities for continuation result from what Horn (1972) has called suspension of presuppositions. In the acceptable (b) continuations, the assertion of the exact number has been suspended, allowing for the possible assertion of a higher value, but not for a lower one. Thus the assertion of the cardinal number in (8) asserts <u>at least 100</u> and allows for the suspension of the upward limit for a higher value on the scale. This type of possibility of scaling will be referred to as <u>upward scaling</u>. Upward scaling is of course relative to what the assumptions are about the direction. In general upward means better or higher on an approval scale. For example, with assertions about measurements like age, height, length, width, etc.

upward normally means a higher cardinal number. However, it is possible for upwards to be a lower number, depending on the assumptions surrounding the directions. For example, in talking about a golf score, there would be this kind of upward scaling possibilities:

9. Palmer shot a 72 today, {*if not a 76. / if not a 70. / and maybe even a 70.}

This results from the fact that the lower a golf score is the better, and upwards is in fact downwards numerically. This is also true with ordinals:

10. My Martha Washington geranium got a 2nd prize, {*if not a 3rd. / if not a 1st.}

And the scales can even be mixed, if the assumptions are shared between speaker and listener, e.g.:

11. She must have a 36 inch bust, if not a 38; and a 20 inch waist if not an 18.

When scalar predicates are negated, as in:

12. a. John isn't 100 years old.

there are two possible readings. The negation can be taken as a denial of the exactness of the number, e.g.:

b. John isn't 100 years old; {he is 102. / he is 98.}

This type of negation is sometimes referred to as external negation, meaning the negation of the whole proposition, i.e.:

c. It is not the case that John is 100 years old.

However, for our purposes it is better described as contradiction negation; it is used to contradict a prior assumption or assertion. Its use usually is signaled in speech by higher stress on the predicate and a non-final sentence intonation.

The second reading of the negation is the more usual one, and it is a denial of the scalar value represented by the predicate (in this case the number). This denial is a denial of the highest asserted value, leaving open only the possibility of a lower value, e.g.:

13. John isn't 100 years old;

$$\left\{\begin{array}{l}\text{*he's not a day over 105}\\ \text{*he's not even 105.}\\ \text{*if he's even 105.}\end{array}\right\} \text{(OK for contradiction)}$$

$$\left\{\begin{array}{l}\text{he's not a day over 95.}\\ \text{he's not even 95.}\\ \text{if he's even 95.}\end{array}\right\}$$

In other words, with scalar predicates, negative means <u>less than</u>.[2] And negation of scalar values points them downwards, below the value given, rather than upwards as in positives, except in contradictory readings. This will de discussed more at length later.

The directionality involved in scalar predicates is illustrated here with numerics; however, it applies equally with other EXTENT markers, both of <u>quantity</u> and <u>degree</u>, e.g.:

14. He owned most of the land, if not $\left\{\begin{array}{l}\text{all}\\ \text{*some}\end{array}\right\}$ of it.

15. He's almost, if not $\left\{\begin{array}{l}\text{completely}\\ \text{*sort of}\end{array}\right\}$, crazy.

16. They visit me frequently, if not $\left\{\begin{array}{l}\text{everyday}\\ \text{*seldom}\end{array}\right\}$.

These principles operate over a wide range of predicates, in fact over any predicate which can be scaled either literally or metaphorically. This will be discussed in much greater detail later in the analysis of EXTENT, with respect to both <u>quantity</u> and <u>degree</u>.

Conceptually, the difference between <u>quantity</u> and <u>degree</u> has to do with measurability. <u>Quantity</u> has the potential for empirical

measurement; things can be measured against a standard discrete unit and assigned so many units: the length, height, or width of linear measurement; the number of repetitions; the amount of elapsed time; the amount of deviation from some Go/No-Go standard; the volume, weight, or mass of innumerable quantity. Thus to say:

17. a. Harry owns 9 ant-eaters.
    b. Tom has two gallons of home-made wine.
    c. Max is 6 feet tall.
    d. Andretti has won the Grand Prix 3 times.

is to say something quantitative which can be confirmed or disconfirmed (at least to some agreeable standard of deviance) by a nose count, a measuring cup, a tape measure, etc. This criterion of measurability holds even if the quantity asserted is non-specific. Thus one marble shooter might say to another:

18. Let's go over to Tom's. He's got lots of marbles.

Here, even though the exact amount of marbles is theoretically ascertainable, the exact number is either unknown or considered unimportant--or both. Yet clearly the modification of non-specific lots is quantitative. The marbles could be counted.

On the other hand, degree EXTENT has to do with the assertion that some quality falls in a certain range in an implied or assumed non-specific scale. Thus we can say:

19. a. He is a little bit of a nuisance.
    b. He's such a nuisance!

asserting some scalar value either upwards or downwards for nuisance. Obviously nuisance is not subject to any empirical measurement and can only be scaled upwards or downwards.

However, despite the conceptual line of potential measurability for dividing quantity and degree, in practical linguistic terms there is no sharp line on one side of which we can call all EXTENT modification quantity and on the other degree.

In some cases, qualities which in fact are subject to measurability are indefinitely scaled rather than given quantitatively. This is most noticeable with measure adjectives, and adverbs, e.g.:

20. a. He is quite tall.
    b. That new car is very long.
    c. Grover's lob was well in--at least 2mm.

but it is not confined to them. For example, all can be used intensively with count nouns as well as quantitatively:

21. An ingenious idea for a novel--all those characters, all those motives, all that nail biting. (London Evening Standard blurb on the cover of the novel, The Taking of Pelham 123)

Here the use is not quantitative but intensive (i.e., degree), even though theoretically the modified nouns could be counted.

And in other cases, quantities are used for what are really degree scales semantically. This is especially noticeable in examples where the usage is figurative, e.g.:

22. a. I owe you a thousand pardons. (= I am very apologetic)
    b. They have a truckload of money. (= They are very rich)
    c. I love you a bushel and a peck. (= I love you so)

And it is also true in instances where the metaphorical use is all but forgotten, e.g.:

23. He has a lot of patience. (= He is very patient)

Bolinger (DW, 58) assigns this kind of usage to quantitative measurement. It does seem that this type of modification derives from clearly

quantitative usage like:

24. He las a lot of money.

Yet it is not clear that semantically the a lot of in (23) is any more quantity than degree. We can paraphrase with either a quantity or a degree, e.g.:

25. a. He has a large amount of patience.
    b. He has a high degree of patience.

We find similar cases with verbs, e.g.:

26. a. She really loves Romeo. (degree)
    b. She loves Romeo a lot. (quantity?)

27. a. He really sweated. (degree?)
    b. He sweated a lot. (quantity)

Nevertheless, despite the lack of a clear dividing line between the two aspects of EXTENT, we will proceed as if there were, noting whenever possible, both syntactic and semantic clues which might allow us to differentiate them.

Though it is not always possible to clearly differentiate quantity from degree EXTENT, there is a great deal that they share as EXTENT modifiers. Manifestations of EXTENT cross lexical boundaries and occur with all four major lexical categories of English: nouns, verbs, adjectives and adverbs. There are many modifiers which serve as either quantity or degree markers, for example: more, enough, most, much, some, a bit, a lot, all, etc. Thus there is considerable lexical overlap between the two EXTENT functions. And quantity and degree also share many common syntactic characteristics and processes. For example, EXTENT for both quantity and degree have an identical questioning pattern: EXTENT is questioned by using the question word how with an

appropriate adjective (including qunatifying adjectives) or adverb, e.g.:

28. a. How many cars are there in the lot?
    b. How much rice is there in the cabinet?
    c. How wide is the road?
    d. How old is he?
    e. How frequently is he late?
    f. How sick is he?
    g. How quickly did he act?
    h. How much of an idiot is he?

It is worth noting in passing that this questioning process is almost unique; most information questions are formed simply by the fronting of the appropriate question word, but with EXTENT both the question word and the appropriate head item must be fronted. The possible theoretical significance of this is discussed in chapter 4.

The questions about EXTENT in (28) are appropriately replied to with an answer which states the EXTENT of the quantity or degree asked about, e.g.:

29. a. About 100; precisely 28; More than I can count ...
    b. About 3 kilos; Two boxes; Enough for pudding ...
    c. About 25 feet; 6 lanes ...
    d. 88; old enough to know better ...
    e. 3 times a week; Every day; Always ...
    f. Very sick; Too much to get out of bed ...
    g. Very quickly; Quickly enough to avoid danger ...
    h. A total idiot; A complete idiot, ...

Another thing all of these EXTENT modifiers have in common is that they all have the same anaphoric pro-form, that. So for example, if one wants to question or deny the quantities or degrees given in the answers of (29.a-h), the extent referred to in each case can be replaced by the

pro-form that, e.g.:

30. a. Oh, surely there aren't that many.
    b. Are you sure there is that much left?
    c. It couldn't be that wide.
    d. It's not possible he's that old.
    e. I'm sure he's not late that much.
    f. Surely, he's not that sick.
    g. That quickly? Really?
    h. Oh, he couldn't be that much of an idiot.

We will see many more syntactic and semantic similarities in the remainder of this study. In fact, we will see that some of the parallels might well have remained hidden or obscure if we had not looked at then through the common glass of EXTENT.

There is also at least one difference exhibited in syntactic behavior which reflects the difference between quantity on the one hand and degree on the other. So, for example, the sentence (28 a-h) all can take a how exclamation and a what exclamation, but only (a-e) can occur in a What question,[3] e.g.:

31. a . How many cars there are in the lot!
    a' . What a number of cars there are in the lot!
    a'' . What number of cars are there in the lot?

    b . How much rice there is!
    b' . What an amount of rice there is!
    b'' . What amount of rice is there in the cabinet?

    c . How wide the road is!
    c' . What a width the road is!
    c'' . What width is the road?

    d . How old he is!
    d' . What an age he is!
    d'' . What age is he?

    e . How frequently he is late!
    e' . With what frequency he is late!
    e'' . With what frequency is he late?

f . How sick he is!
f' . What sickness he has! What a sickness he has!
f'' . *What sickness does he have?
(*in the relevant sense, i.e., not meaning <u>what kind</u>)

g . How quickly he acted!
g' . What quickness he acted with! What a quickness ...!
g'' . *What quickness did he act with? *With what quickness did he act?

h . How much of an idiot he is!
h' . What an idiot he is!
h'' . *What an idiot is he?

The <u>what</u> question is compatible only with a noun which is clearly quantitative in meaning. It cannot be used to question something which involves a degree of something, a scaling of things along a non-discrete continuum.

We might note at this point that this criterion for distinguishing quantitative usage from degree usage supports a doubt that I expressed earlier (p. 13, ex. 23) about Bolinger's assignment of <u>a lot</u> with nouns to <u>quantity</u> rather than to <u>degree</u> in sentences like:

32. He has a lot of patience.

a. How much patience does he have?
b. What patience he has!
c. *What patience does he have.
cf ??What amount of patience does he have?
OK What degree of patience does he have?

Here the <u>what</u> question fails, indicating that the use is <u>degree</u> rather than <u>quantity</u>.

We will turn now to an examination of some of the parameters of EXTENT with the various lexical classes of English. For organizational purposes, it will be necessary to examine <u>quantity</u> and <u>degree</u> with each of the lexical types in turn. However, this organizational necessity should not obscure the fact that <u>quantity</u> is most clearly revealed in

examination of nouns, and degree is most easily viewed through the modification of adjectives, although once degree is defined, it will be just as clear in the modification of predicate nominals.

1.10. EXTENT in Nouns

1.11. Quantity

Quantitative EXTENT is most clearly exhibited in concrete nouns--number in count nouns and amount in mass nouns, e.g.:

33. a. He owns three Cadillacs.
    b. We don't see many strangers down this way.

34. a. Would you like some soup?
    b. She doesn't have much money.

Mass nouns can be made count by the addition of partitive phrases expressing measure, collection, weight, worth, etc., e.g.:

35. a. I'd like two quarts of milk.
    b. Please give me two pounds of hamburger.
    c. He owns a herd of cattle.
    d. He just bought a dollar's worth of gas.

The same types of phrases can also be used with plural count nouns, e.g.:

36. a. I'd like two pounds of jelly beans.
    b. Bring that man two kegs of nails.

In essence, the use of count nouns as plurals in such instances serves to neutralize the distinction between count and mass--they are used simply to identify the material and the quantity. This neutralization can be seen clearly with some count nouns which are small

in size and usually dealt with in quantity rather than individually, e.g.:

37. a. How much (jelly beans) do you want?
    b. ?How many (jelly beans) do you want?

When no specific quantity is asserted, as in questions, exclamations and negation, the distinction between count and non-count is carried by generalized quantifiers (or quantifying adjectives): the numeric quantifier <u>many</u> is used for count nouns and the mass quantifier <u>much</u> is used for mass nouns:

38.	a.	How many cars does he own? How many cars he owns!	Not many.
	b.	How many pints of milk do you want? How many pints of milk she buys!	Not many.
	c.	How much gas did he buy?	Not much.

Abstract mass nouns identify the quality they represent, e.g.:

39. a. How much honesty did he display?
    b. *How many honesties did he display?

40. a. How much love does she have for him?
    b. *How many loves does she have for him?

Of course, many abstract mass nouns may be used as count, but when they are, they are used as individual instances of the more abstract quality involved, e.g.:

41. a. She has many loves.
       (She loves many different people or things)
    b. A love like this happens only once!

1.12. Degree

There are types of nouns which are subject to degree modification. These nouns can be scaled along a non-specific, relative scale either

upwards or downwards by the use of degree modifiers, e.g.:

42. a. He writes such (a lot of, total ...) nonsense.
    b. That car is such (a bit of, completely ...) a wreck.
    c. He is such (really, rather ...) a fool.

And there are nouns which cannot be modified for degree, e.g.:

43. a. *He writes such (a bit of, total, ...) philosophy.
    b. *That is such (a bit of, completely, ...) a car.
    c. *He is such (really, rather, ...) a department store manager.

Here the (*) refers only to the degree sense of the modification. There are of course many instances where these modifiers may be used with non-degree nouns and yield other senses. For example, That's a lot of car or That's really a car can mean something like, That's a very nice (expensive, fast, highly-modified, ...) car. Similarly, a sentence like He is completely a doctor might be used to mean something like, He is so devoted to being a doctor that he neglects everything else. It may be that such usages are either on the way to becoming degree nouns or, more likely, are borderline cases which don't behave completely like degree nouns because of their strong referential properties, which override possible attributes becoming lexicalized.

Nouns which take degree modification are clearly adjective-like, and not surprisingly exhibit adjectival qualities. For example, they can be compared for degree — just like adjectives,[4] e.g.:

44. a. That car becomes more of a wreck every day.
    b. My doctor is more of a quack than yours.
    c. He is more of a foll than I imagined.

And non-degree nouns do not allow such degree comparisons, e.g. (again * means in the relevant sense; some of these may have readings of

quantitative EXTENT, and some of them may mean something like more like):

45. a. *What he wrote in this article is more philosophy than what he wrote in his last article.
    b. *That is more of a car than he had last year.
    c. *He is more of a doctor than the one I went to last.
    d. *She is more of a lass than her sister.

Like adjectives, degree nouns may occur following certain predicates like seem and appear, while non-degree nouns cannot,[5] e.g.:

46. a. That program made him seem foolish.
    b. That program made him seem a fool. (degree)
    c. *That program made him seem a systems analyst. (non-degree)

47. a. What he said seems nonsensical.
    b. What he said seems nonsense.
    c. *What he said seems philosophy.

And like many adjectives, many degree nouns can take complements, while non-degree nouns cannot, e.g.:

48. a. He is crazy about her.
    b. He is a lunatic about her.
    c. *He is a man about her.

49. a. It is idiotic to pretend that he doesn't know.
    b. He is an idiot to pretend that he doesn't know.
    c. *He is a man to pretend that he doesn't know.

And not surprisingly, de-adjectival nouns are degree nouns,[6] e.g.:

50. a. What he says is such (a lot of, complete, ...) foolishness.
    b. Sometimes she displays such (total, a lot of, ...) girlishness.
    c. Japanese industry produces with such (a lot of, complete, ...) efficiency.
    d. Our new manager has such (a lot of, total ...) capability.

Degree nouns, again not surprisingly, occur most easily as predicate nominals, attributing qualities to other nominals; they do not occur easily as referential nominals. Thus there are distributions

like this (again, where * means in the degree sense):

51. a. That car is such a wreck.
    b. It seems rather a wreck
    c. What a wreck this car is!
    d. *Such a wreck drove into the garage last night.[7]

52. a. My sister-in-law is such a nuisance.
    b. She seems a complete nuisance.
    c. What a nuisance she is!
    d. *Such a nuisance married my brother.
    e. ?My brother married such a nuisance.

53. a. That doctor is such a quack.
    b. That doctor seems a bit of a quack.
    c. What a quack that doctor is!
    d. *Such a quack practices in our building.
    e. ?My wife called such a quack when I was sick.

It seems clear that degree nouns are adjectival in nature in that they commonly are nouns which have developed descriptive nuances through their own history or they are nouns which have carried over adjectival meanings from de-adjectival derivations. In the former cases, the development of descriptive attributes is usually of an extreme kind, either positive or negative. Thus a wreck is a car that is in very poor condition, deriving from the obvious associations of a car which has been in a wreck: a quack is a doctor who is very bad; a beauty is a woman who is very beautiful, etc.

1.20. EXTENT in Adjectives and Adverbs

1.21. Quantity

Quantity in adjectives and adverbs is limited to adjectives and adverbs of measurement, and there are restrictions in these uses. Note

the following questions and answers and the distribution of grammaticality.

54.	a.	How tall is he?	He's 6 feet (tall).
	b.	How long is the symphony?	It's 24 minutes (long).
	c.	How heavy is that truck?	It's 2 1/2 tons (*heavy).
55.	a.	How fast did he run the race?	He ran it in 4:03 (*fast).
	b.	How long did she beat the rug?	She beat it for 4 minutes (*long).
	c.	How often did she visit?	She visited 3 times (*often).
	d.	How many times did she visit?	She visited 3 (*many) times.

First of all, there are systematic gaps and stereotyped occurrences, as illustrated by the lack of exact correspondence between the question forms and the answer forms of the quantities. This is not very startling when we consider, first of all, that measure functions are apt to be older forms, and therefore may show the irregularities and idiosyncrocies of historically frozen or partially frozen forms. It is worth noticing that many of the adjective/noun pairs of measurement functions show historical relationships and systematic gaps, e.g.:

high	height (pronounced either [hayt] or [hayθ])
wide	width
long	length

*weigh (OK heavy) weight

tall	*tallth	(OK tallness or height)
far	*farth	(OK farness or distance)
big	*bigth	(OK bigness or size)

This type of inconsistency will not concern us. However, it might be noted that adjectives and adverbs do not generally take <u>quantity</u> EXTENT modification, which more usually occurs with nominals. Thus, once we move from the historically older and more usual measurements which use

measure adjectives into newer forms of quantity measurement, we find that nominals are used rather than adjectivals, e.g.:

56. That circle has a diameter of 10 inches.
is 10 inches in diameter.
*is 10 inches diametric.

57. That rectangle has an area of 25 square inches.
is 25 square inches in area.
*is 25 inches areal.

58. That ship has a capacity of 100,000 metric tonnes.
is 100,000 metric tonnes in capacity.
*is 100,000 metric tonnes capacious.

There will be further discussion of measure adjectives and the movement from adjectival contructions to nominals in expressing quantity EXTENT in the following section after an examination of degree EXTENT in adjectives.

Much the same thing is true for lexical adverbs. The lexical adverbs of quantity are limited to the temporals, with temporal sub-dividing into durative and punctual. Thus we get sentences like those in (55) and:

59. a. She visits her sister frequently.
b. She will be here very soon.

But adverbial forms for other quantity types don't occur, e.g.:

60. a. *That ship holds oil very capaciously.
(= has a great capacity)
b. *That man owns land very areally.
(= owns a large area)

Again, quantity EXTENT, except for the adverbs of time, seems to be assigned more easily and naturally to nominal constructions, e.g.:

61. a. That ship holds a lot of oil.
b. That man owns a lot of land.

And of course even the adverbs of time have their nominal counterparts, e.g.:

62. a. She visits 3 times a day.
    b. She stayed for a long time.

1.22. Degree in Adjectives and Adverbs

Degree EXTENT is most clearly seen in modification of adjectives and adverbs. Degree is usually illustrated by reference to those adjectives and adverbs which may be compared,[8] e.g.:

63.	a.	tall	taller	tallest
	b.	sick	sicker	sickest
	c.	frequently	more frequently	most frequently
	d.	quickly	more quickly	most quickly
64.	a.	Symphonic	*more symphonic	*most symphonic
	b.	at 6 o'clock	*more at 6 o'clock	*most at 6 o'clock
	c.	6 feet tall	*more 6 feet tall	*most 6 feet tall

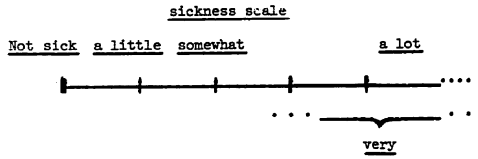
Additionally, the ability of adjectives and adverbs to be modified by the intensifier very is a good diagnostic of whether an adjective or adverb is capable of degree EXTENT modification. This ability usually[9] parallels the ability to be compared, e.g.:

65. a. very tall
    b. very sick
    c. very frequently
    d. very quickly

66. a. *very symphonic
    b. *very at 6 o'clock
    c. *very 6 feet tall.

The intensifier very indicates the relative position of something on a scale of the quality or state under discussion. For example, using a scale for sickness, the meaning of very sick might be illustrated like

this:

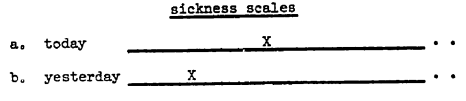


Thus to say that someone is very sick is to say that on such a linear scale his degree of sickness falls someplace to the right of somewhat without any specifiable rightward limit. The degree can be pushed further rightward by a variety of devices such as intonation, vowel nucleus stretching (DW, Ch. 15), or repetition--as in very, very, very sick.

Comparison of adjectives and adverbs which are capable of degree modification works similarly, except comparison either gives overtly or implies the existence of two scales. For example, a sentence like:

67. He is sicker today than he was yesterday.

could be illustrated in this way:



As long as the X for sickness is more to the right on the today scale than on the yesterday scale, this is an accurate representation.

Such scaling makes it easy to understand why some adjectives and adverbs cannot be modified by degree EXTENT. In order to be subject to degree modification, the lexical item has to represent attributes which allow identification on such a left-to-right scale (or top-to-bottom--

depending on our metaphor). Thus expressions like at 6 o'clock or 6 feet tall could never appear as *very at 6 o'clock or *very 6 feet tall because they represent discrete points on time and space continua.

The inability of words like symphonic, parliamentary, chemical, metabolic, etc. to be subject to degree modification is a bit more complicated. Bolinger (DW, 21) has commented that these non-degree adjectives tend to be those which cannot be used predicatively, i.e. in contruction like:

68. a.	*That score is symphonic.	OK symphonic score
b.	*That debate is parliamentary.	OK parliamentary debate
c.	*That compound is chemical.	OK chemical compound
d.	*That process is metabolic.	OK metabolic process

At least part of an explanation seems to be that certain types of adjectives are more nominal-like than predicate-like; it is worth noting that many (if not most) of these kinds of adjectives are denominal in origin. Furthermore, most of them are closely associated with a limited set of potential co-occurences, e.g.:

69. a. chemical compound but not *chemical dirt
b. symphonic score but not *symphonic instrument
c. parliamentary debate but not *parliamentary strike
d. metabolic process but not *metabolic tissue

It is possible to construct sentences in which they are used predicatively, but only by using a very limited, contrastive environment, e.g.:

70. a. The problems in this factory are economic--not chemical.
b. Her problem is metabolic--not psychological.
c. This old manuscript is parliamentary--not ecclesiastical.

In any case, such adjectives have clearly limited--if not unique--descriptive powers and thus would not be easily subject to scaling along an arbitrary, relativistic continuum.[10]

1.23. A Comparison of Quantity and Degree EXTENT in Adjectives and Adverbs

In the previous two sections we have noted the occurrence of quantity and degree EXTENT in adjectives and adverbs. We have noted that the crucial difference is in measurability--the ability to be empirically quantified, versus the ability to be scaled. Some adjectives can be both quantified and scaled and some can be scaled only. This is illustrated in the following set of questions and answers:

71.	a.	How long is the road?	Very. About 100 miles.
	b.	How heavy is the load?	Very. About 1 ton.
	c.	How late is the train?	Very. About 1 hour.
72.	a.	How happy is the girl?	Very. *About 3 degrees.
	b.	How lost are we?	Very. *About 10 miles.
	c.	How dramatic was the play?	Very. *About 10 column inches of review.

This distinction between adjectives which are subject to quantity EXTENT and those which aren't is important because it ties in with an often noted phenomenon concerning the semantics of measure adjectives.[11] A comparative involving measure adjectives like <u>tall</u> as in:

73. John is taller than Mary.

does not entail that John is tall in any absolute sense although a comparative using a non-measure adjective like sick so compared, e.g. as in:

74. John is sicker than Mary.

will entail that John is sick in some absolute sense. The same phenomenon occurs in the questioning process, e.g.:

75. How tall is John?

76. How sick is John?

In (75), there is no presupposition on the part of the questioner that John is tall, while in (76) the question would only be asked if the questioner had some reason to think that John was in fact sick. Thus with measure adjectives there are certain adjectives--the so-called unmarked forms--which do not carry the notion of absolute measure: heaviness, wideness, tallness, etc., but serve only as the adjective identifying the type of measurement.[12]

1.30. EXTENT in Verbs and Verb Phrases

1.31. Quantity

There are several interesting parallels between nouns and verbs with respect to quantity EXTENT. It is possible, for example, to think of verbs as predicate counterparts of mass nouns. As Bolinger puts it:

> Verbs are typically mass or plural like to begin with, and are 'singularized' by being tied to a time and a place... This is to say that fundamentally verbs are extensible like mass nouns ... The effect of this is to make intensification for extensibility well-nigh universal among verbs (DW, 161).[13]

In fact, there seems no reason not to go even further in the comparison.

We might think of nominal mass quantity as being paralleled by verbal duration of time and/or quantity of predication, and nominal number as being paralleled by verbal frequency.[14] For example, in sentences like

77. a. How that baby cries!
    b. That baby cries so!

there is an ambiguity between a reading of <u>amount of crying</u> and <u>frequency of crying</u>. The ambiguity is removed if appropriate, overt EXTENT markers are provided, e.g.:

78. a. That baby cries often. (frequency)
    b. That baby cries all day long. (time and thus amount)

And the two possible types of EXTENT are not mutually exclusive; both may occur in the same sentence, e.g.:

79. a. That baby often cries all day.
    b. That baby cries a lot every day.

This might be compared with the use of the numerical partitive in combination with mass or plural nouns, e.g.:

80. a. I'd like a pint of that moonshine.
    b. Could I have a jar of jelly beans?

In sentences like (77-79), the amount is a reflection of duration of time. Presumably all verbs which do not imply discrete points in time (such as <u>strike</u> or <u>flash</u>), can be extended for amount by temporal duration. Additionally, there are other ways in which verbal amount may be extended. The most noticeable has to do with the extension of an action by asserting quantity in the object of transitive verbs. For example, a sentence like:

81. God, how that child asks questions!

means both that the child asks a lot of questions and does a lot of

question-asking. By implication, there is also an extension of time. Thus, in such a sentence, the plurality of the object allows the possibility of extension of the complete verb phrase in several possible ways. A singular object in such an exclamation would not allow any of these possible extensions:

82. God, how that child asks a question! (≠81)

Such a sentence would be taken not as an exclamation about EXTENT but about MANNER.

Many different verbs have different inherent aspects of EXTENT as part of their lexical meaning. For example, a verb like <u>repeat</u>, not surprisingly carries with it the notion of repetition--or frequency. And when <u>repeat</u> is used there is only the possibility of <u>frequency</u> EXTENT being understood in the absence of any other EXTENT marker, e.g. in:

83. a. She repeats herself so!
    b. How she repeats herself!

the only possible EXTENT reading of either is <u>frequency</u>. Thus both are equivalent to:

84. She often repeats herself.

And any answer to a question like:

85. How much does she repeat herself? { A lot. / Very much. / 10 times an hour. / *A long time. / *For 3 hours. }

must involve an EXTENT which is compatible with a frequency meaning.

Some verbs have an inherent EXTENT feature for amount. Thus a verb like chatter means to do a lot of talking. In sentences like:

86. a. She chatters so!
    b. How she chatters!

EXTENT is taken to be amount rather than frequency. This can be seen in two continuations of a sentence with chatter, e.g.:

87. If she chatter so,

    a. why don't you ask her not to talk so much.
    b. *why don't you ask her not to talk so often.

Some verbs have an inherent EXTENT which is related to duration of time. For example, to last, has an inherent time duration. So a sentence like:

88. a. That box of chocolates lasted so!

can only mean something like (b) and not (c), viz.:

    b. That box of chocolates lasted a long time.
    c. *That box of chocolates lasted frequently.

With some verbs, there is a systematic ambiguity between amount arising from duration of time and various other possible co-extensive relationships, e.g.:

89. My boys didn't like the army because they had to march so!
    How much did they have to march? {5 miles a day. / 3 hours a day.}

This is of course due to the fact that distance and time cannot be logically separated from one another in a durative event act like walking, marching, etc.

Verbs which have inherent durative EXTENT rather than frequency EXTENT can be made more particular, or to use Bolinger's term, 'singularized', by tying them to a particular time, place or act. When

this happens the EXTENT is singularized and becomes susceptible to counting--i.e. to an expression of frequency, e.g.:

90. The boys have to march to mess a lot. (= often)

This interpretation was not open before the act of walking was tied to something particular and thus became enumerable.

1.32. Degree

Since in most verbs and verb phrases 'extensibility is well-nigh universal' via time, frequency, distance, etc., or quantity of associated noun phrases, it is difficult to find unambiguous cases of degree EXTENT which are not also possible cases of quantity EXTENT. For example, in a sentence like:

91. a. How Juliet loves Romeo!

the exclamation might be about either the degree of her love or about the amount of her love, viz.:

b. Juliet really loves Romeo. (degree)
c. Juliet loves Romeo a lot. (quantity)

In such a case there seems no clear way to distinguish the difference; the distinction is effectively neutralized.

However, it is possible to detect some differences between degree and quantity EXTENT. For example, in a verb like <u>to whisper</u>, a difference can be detected with the right context (DW, 163):

92. a. I wish those people wouldn't whisper so during the film!
(= so much that we can't hear the film) (amount)
b. I wish those actors wouldn't whisper so!
(= speak so low that we can't hear them) (degree)

The sense in (a) is easily felt to be <u>quantitative</u> in some way (perhaps ambiguously between <u>frequency</u> and <u>duration</u>) and the sense in (b) seems

clearly degree in the sense of scaling the whispering along some continuum of speaking in a low voice. In fact, what seems to be operating in this case is that the verb to whisper is felt to be lexically complex (i.e. = speak in a low voice) and what the EXTENT marker is doing is selecting (according to context) between the modification of this incorporated adverbial sense or the possible quantity EXTENT allowed for the whole incorporated verb phrase, i.e.:

93. a. I wish those people wouldn't speak in a low voice so much during the film.
    b. I wish those actors wouldn't speak in such a low voice.

This same type of phenomenon is easily observed in other types of lexically complex verbs where part of the definition of the verb has to include an adverbial element associated with it, especially manner adverbs, e.g.:

94. a. The water engulfed the boat so!
       (= covered so completely)
    b. The man hobbled so! (= walked so limpingly)
       (= walked with such a limp)
    c. The detective scrutinized the letter so!
       (= looked at it so carefully)
    d. The surf pounded the coast so! (= beat so hard)
    e. Time dragged so! (= passed so slowly)

In each of these cases, the EXTENT may be taken to be degree inasmuch as it indicates the scaling of the adverbial sense. In some cases, just as with whisper, there seem to be two possible readings between the quantity sense and the degree sense, e.g.:

95. I wish the detective hadn't scrutinized the letter so.

    a. He had it so long I thought he'd never return it.
       (quantity of time)
    b. He looked at it so carefully, I thought for sure he'd notice that erasure. (degree)

Here it may be that the adverbial sense of carefully incorporated in

scrutinize must itself connote to do something for a long time and thus allows either a quantity reading or a degree reading, or even both at the same time. This seems even more clearly the case with hobble, where to walk with a hobble necessarily implies walking slowly, which means that one must use an extraordinary amount of time in walking from one place to another. Thus a sentence like (94.b) could be continued in a discussion about either of these senses, e.g.:

96. The man hobbled so!

i. I felt sorry for him because of his limp.
ii. I thought he'd never get across the street before the light changed.

With non-measure de-adjectival verbs, however, there seems to be only degree EXTENT incorporated if there is no overt quantity given. For example, in sentences like:

97. a. The iron bar reddened so! (= became so red)
b. The rock blunted the drill so! (= made it so blunt)

the only sense of EXTENT seems to be degree and not amount. This is, of course, expected since it has already been noted that adjectives typically are modified for degree rather than quantity, except for the small class of measure adjectives. Thus, it is expected that only degree will be associated with such verbs derived from adjectives, since they are essentially only adjectives parading as verbs.

There are no doubt many other generalizations about the possible types of EXTENT in verbs and verb phrases. Bolinger in particular has gone into this in considerable depth, especially in relationships between adjectives and passives of result and their occurences with degree modification. But the surface has only been scratched. However,

enough has been done to outline some of the variety of phenomena to be treated. There is plenty of work yet to be done in exploring the composition of complex verbs and the interplay with EXTENT--indeed, in discovering if there are any true verbs which are not lexically complex. Hopefully, the notion EXTENT described here will prove useful in diagnosing these complexities.

1.40. Conclusion and Transition

All of this discussion has been intended to help identify the notion EXTENT and to discuss some of the problems of defining just exactly what it includes. We have seen that the two different manifestations of EXTENT--quantity and degree--are related to one another in systematic ways, and that they distribute themselves in consistent patterns in their cooccurences with other lexical categories. The remainder of this work will be an attempt to explore in some depth the systematic relationships and parallels between degree and quantity and to suggest how these two manifestations of EXTENT might be related to one another in grammatical structure.

FOOTNOTES FOR CHAPTER ONE

[1] I am endebted to Horn (1972) for this observation. I had been thinking of scalar quantity in numbers as being limited to the ordinals. But Horn makes the case quite clearly for the scalarity of cardinals, and he shows the unified behavior of all quantifiers with respect to such notions as suspension and boundedness.

[2] Noted first by Jespersen. See (1933, 300).

[3] This observation is due to Bolinger (DW, pp. 71-72).

[4] The mass nouns exhibit an ambiguity between degree and quantity in comparisons, e.g.: He talks more nonsense now than he used to can mean either that he talks more or what he says is more nonsensical.

[5] Actually the facts here are somewhat more complicated. Bolinger (DW, 73ff) notes that there is a distinction in degree nouns between those which may be used predicatively and those which cannot be used predicatively. The predicatives may occur after seem while the nonpredicatives cannot. This may be illustrated by comparisons of non-degree, degree--nonpredicative, and degree--predicative nouns, e.g.:

i. a. *What he writes seems history.
(*such history/non-degree)
b. *What he writes seems adventure.
(OK such adventure/degree--nonpredicative)
c. What he writes seems nonsense.
(OK such nonsense/degree--predicative)

This type of distribution also has parallels with adjectives. There are types of adjectives which are nonpredicative and can't occur as the complement of seem, e.g.:

ii. a. That debate seemed acrimonious.
b. *That debate seemed parliamentary.
c. *That process seems metabolic.

[6] As we saw with comparisons of mass degree nouns in footnote 4, we also find ambiguity between a degree reading and a quantity reading when we use modifiers which serve both as degree modifiers and as quantifiers. Thus sentence (50 a) What he says is a lot of foolishness may be taken in either degree or quantity senses, although it is not clear that there would be any different meaning taking either sense.

[7] Celce-Murcia (personal communication) has pointed out that some of the sentences in (51-53) may be acceptable to speakers who have been influenced by Yiddish English.

[8] For example, Jespersen (1964 [1933], pp. 219 ff.).

[9] This remark has to be qualified because there are some adjectives which can be compared but which don't easily take very as a modifier, e.g.:

i. *Last night the door was very open.
ii. Last night the door was more open than it is now.

Bolinger (DW, pp. 38 ff) discusses this in comparing the uses of very and well. He attributes the occurrence of very to use in essence and well in accident senses when the two are possibly in contrast. So for example this distribution obtains:

iii. That flower bud is well open.
iv. *That flower bud is very open.

However, it is not clear that this distinction helps to explain why the sentence with very in (i) is bad, since the essence of a door has nothing to do with its being open or closed. What seems to be involved with open in the case of (i) and (ii), is that some adjectives describe states which are either/or, e.g.: open-shut, on-off, in-out, etc. Since the state is either/or it can't be scaled along a degree dimension. However, a degree modifier which carries another scale with it, such as the comparative, can set one instance of the state against another instance of the same state and note the comparison. Enough seems to have the same ability:

v. The door is enough open to let me slip in this piece of paper.

Curiously, in my speech, this is one of the few types of constructions where enough can precede the adjective it modifies rather than following it, although it can precede when used as a quantifier.

[10] However, it is perfectly possible through use for such adjectives to change from non-scalar to scalar, perhaps through some weakening of their original meanings and co-occurrences, e.g.: musical.

i. My daughter is very musical.
ii. This melody is more musical than that one.

[11] See, for example, Sapir (1944), Lyons (1966), Celce-Murcia (1972), Bartsch and Venneman (1972), et al.

[12] It is interesting to note in this regard, that the corresponding nominals of measurement also do not exhibit this phenomenon of indicating absolute measurement. For example, in sentences like:

i. a. What height is John.
   b. John has more height than Mary.

ii. a. What capacity does that ship have?
   b. This ship has more capacity than that one.

there is no difference in the presuppositions of the measurement either in a question or a comparison. In other words, measure nominals like height, capacity, etc. are neutral with respect to the assertion of any certain relative value. [Lyon (1968, 467) has also noted this.] We noted before in section 1.21 that adjectives did not show wide distribution with quantity EXTENT and that there seemed to be an historical shift from adjectival measurement to nominal measurement. It is interesting to speculate that this conflict between the presuppositions of the measure adjectives when used in simple assertions and used in comparatives or interrogatives, might have been one of the forces shifting the measurement function from the adjectival to the nominal, thereby simplifying the semantic relationships involved.

[13] Bolinger credits the notion of duration in verbs being equivalent to mass EXTENT in nouns to Harold V. King (1969), who in turn credits it to Henry Sweet.

[14] In fact Bolinger essentially does this in (1975, 147), where he notes the count aspect of verbs in a sentence like He talked for a moment.

CHAPTER TWO. Simple EXTENT Modification.

Having tried to define what EXTENT is, we now turn to a discussion of simple EXTENT. First of all, the discussion will center on various aspects governing the distribution of simple degree modifiers--the syntactic, semantic and even phonological considerations which are in evidence in determining the collocations and cooccurrences of the degree modifiers. While much of this work will build on, or parallel Bolinger's work in Degree Words, much of the material and analysis is new, for example, the discussion of iteration in the degree modifiers and the much expanded discussion of degree modifiers modifying each other. Wherever possible, I have tried to provide guides as to where the major influences, similarities and differences are with respect to Bolinger's influence on the work of this chapter.

After a rather long discussion of the distributions, the length of which is justified below, we will examine the interaction of negation with degree. Again, some of this work shows Bolinger's influence, but much of it goes well beyond Bolinger's discussion of negation. Here negation is explored with a wider range of degree modifiers, for example the failure of negation to occur with compromisers except for contradiction, and examines in much more detail some phenomena that Bolinger does discuss, for example, the much fuller discussion of negation with quite.

Next the concept of scalar valence is developed and applied to degree modifiers. While the notion of scalar valence developed here derives historically from Horn's (1972) work on suspension, the development and application of it to degree modification is new here; Horn was mainly concerned with scalar values in modals and quantifiers. His work on suspension is used here to develop criteria for classifying semantic values in degree modifiers

And finally, all of this analysis, in a rather abbreviated form, is used to examine the other side of EXTENT--quantity. There we examine parallels in cooccurrence, behavior under negation, and scalar valence, and find that in almost every respect, quantity looks and behaves very much like degree. While others have noted some of the parallels, particularly with the complex cases such as comparison (which are discussed at length in Chapter 4), to the best of my knowledge, the extension of the total analysis here of degree to cases of quantity is new with this work.

In the Introduction the fundamental division between simple EXTENT modification and complex EXTENT modification was pointed out. There it was asserted that the complex cases were fundamentally extensions of the simple examples, and that both shared a number of syntactic and semantic characteristics.

In this chapter, we will explore a rather large body of data which bear directly on an analysis of simple EXTENT, mainly data which shows at least the outlines of the complexity involved in accounting for the distribution of EXTENT modifiers, in particular, degree modifiers. This long discussion seems necessary in order to convince readers of the

enormously rich cooccurrence and collocational restrictions governing their distribution. A number of linguists have in the past used some of the EXTENT modifiers as evidence in justifying particular arguments and analyses without taking into account the great complexity of the phenomena they were describing.[1]

The bulk of this discussion concerning collocational and cooccurrence restrictions will be devoted mainly to the cases of degree modifiers and the structures they modify, although the quantifiers will also be discussed. The reason for this is that the degree cases seem to display considerable more complexity than the quantity cases. Later we will speculate on why this is so.

2.10. Simple Degree

The words which can take degree modifiers, we will call, following Bolinger, degree words.[2] These are words, typically predicate-like in distribution and use, which can be scaled along a continuum for some or all of their lexical properties. The words which modify degree words, making the degree properties overt and extending them, we will call for the time being simply degree modifiers.

2.11. Classification

There are a number of different criteria which may be used when examining the distribution and functions of degree modification. Each of the criteria reveals something different, and it is the interplay between the criteria which ultimately allows us to begin to make sense of their distributions and their usage. We will examine degree

modification with respect to amount of lexicalization, semantic function and cooccurrence restrictions.

2.11.1. Lexicalization

Degree modifiers can be classified on the basis of degree of lexicalization, between those forms which are relatively lexicalized and those which are relatively unlexicalized. The classification actutally falls along a continuum, rather than between clearly marked discrete divisions between classes. On the lexicalized end of the continuum, there are forms like very, quite, rather, pretty, a bit, a little, sort of, kind of, more/-er, most/-est, so/such, too, enough, etc. Some of these forms like so/such, too, more, most, etc. have had approximately their current phonological forms, meanings and syntactic distribution essentially since the Old English period.[4] Others have become lexicalized through time. For example, it is well-known that very comes from the French and originally meant something like truly. And as late as the 15th Century[5] very still carried some of this lexical assertion of truth. However, very now carries little if any of that lexical connotation; it is the primary intensifier in English.

These relatively lexicalized forms can be characterized by two properties: a lack of lexical meaning and freedom of distribution. They do not have any meaning other than that of their degree modification function. Thus very doesn't mean 'truly' anymore; sort of and kind of don't carry any of their original partitive meaning. Thus He is sort of an idiot doesn't mean 'He is one kind of an idiot', but simply that he is rather idiotic. Rather itself is similar. It no longer signals an

alternative as in, I'd rather drink coffee than tea, but simply stands for something equivalent to very. Although with rather, as Bolinger indicates (DW, 221), it is necessary for this to be qualified. There is still some potential identification of degree rather with its sentence adverbial origins. Sentence (1) illustrates this sentence adverb use:

1. We weren't bored; rather we were having fun.

Bolinger notes that the degree modifier usage develops from this adverbial use as the adverb penetrates through the layers of the auxiliary, becoming increasingly a degree modifier as it approaches the predicate. And there is a sliding semantic value depending on the relative closeness of the modifier to the predicate; so for example, with (1), rather may occur in several positions, e.g.:

1. b. We rather were having fun.
   c. We were rather having fun.
   d. We were having rather fun.[6]

According to Bolinger, the (b) version is more sentence adverb-like, while the (c) version is more degree modifier-like, and the (d) version is a degree modifier only. Thus it is perhaps necessary to say that rather, when it stands directly before the head item, is a lexicalized degree modifier, but otherwise is relatively less lexicalized.

The relatively lexicalized forms are also characterized by a relatively free cooccurrence range with the predicates they can modify.[7] So, for example, very can occur with practically any degree adjective or adverb, and in combination with much, with almost any degree noun and many degree verbs. Quite can occur with almost any degree adjective, adverb, verb, or noun, subject to conditions noted below. Similarly

with sort of and kind of, and the others in the list on p. 43. There are exceptions to this almost total freedom of occurrence with degree modifiers like all, well, and much, which are clearly lexicalized, but which have severe semantic restrictions on their cooccurrences. These will be discussed later.

On the other end of the lexicalization spectrum, there are the more or less totally un-lexicalized modifiers. These tend to be adverbs modifying degree adjectives, adverbs and verbs, and adjectives modifying degree nouns. These are typically modifiers which serve both to attribute qualities of their own to the modification and to extend the properties of the modified head item by the intensification of degree. They also tend to be words which are semantically strong and/or hyperbolic, and this of course explains why they are taken as degree modifiers. Some examples are:

2. That was a colossal blunder. (= very large/great)
3. The economy needs a massive infusion of capital. (= very large)
4. That new car is enormously overpriced. (= very greatly)
5. Senator Snerd made a thumpingly crowd-rousing speech. (= very)
6. His accounts revealed a disastrously inflated balance. (= very)

Such uses may be classified themselves as to the type of qualities they attribute in the modification, e.g.: size, strength, evaluation, etc. (DW, 149-50). Since these types of modifiers retain their own lexical properties, as well as serving degree modification functions, they are restricted in cooccurrences to the modification of compatible head

items, e.g.:

a colossal blunder	but not	*a colossal traitor (cf a terrible traitor)
a massive infusion	but not	*a massive romantic) (cf quite a romantic)
enormously overpriced	but not	*enormously cheap (cf quite cheap)
thumpingly crowd-rousing	but not	*thumpingly thoughtful (cf very thoughtful)
disastrously deficient	but not	*disastrously pleasing (cf very pleasing)

The qualities which make such adverbs or adjectives compatible with their respective head items is a study of its own, and it is not necessary to do any more here than to make the point that the unlexicalized degree modifiers retain cooccurrence restrictions due to their lexical content, even as they are doubling in function as degree modifiers.

It should also be clear that this type of degree modification is open-ended. Almost any adverbial or adjectival form which connotes some sense of extremity can serve a degree modification function. Here is a recent example, which to the best of my knowledge is newly coined:

7. a. On the other hand plutonium ... is searingly ... radioactive.... (TIME INTERNATIONAL EDITION, 4/18/77)

Here searingly obviously serves a degree function, used to indicate something like very radioactive, but at the same time it retains its lexical properties in indicating that the radioactivity is potentially lethally hot, at least in some metaphorical sense. Both of these functions are also carried in an adjectival paraphrase, e.g.:

7. b. Plutonium is radioactive to a searing degree.

The degree function which arises from the extreme quality associated with searing can also be extended to less appropriate uses. For example,

it might be used in something of a metaphorical sense as in:

8. a. The Prime Minister made a searingly sharp retort.

where the searingly would be taken as an innovative way of saying very, and which also connotes something perhaps of the Prime Minister's temper in making the retort. But the same sense is not nearly as apparent in the adjectival paraphrase, viz.:

8. b. *The Prime Minister made a retort which was sharp to a searing degree.

However, if the searingly is used with an adjective which is compatible with the temperature connotation of searing, there will be both an acceptable degree modification sense and an accurate and acceptable (if somewhat stylistically leaden) adjectival paraphrase, e.g.:

9. a. The Prime Minister made a searingly fiery retort.
   b. The Prime Minister made a retort which was fiery to a searing degree.

The lesson to be learned here is that as we invent and use new combinations in our search for new ways of expressing extreme feelings or notions, degree modifiers may be chosen largely for their extremity potential, rather than for their other lexical properties, per se. Thus, even at the most productive end of this modification manufactory, degree modification often chooses features connoting extremity, rather than other lexical properties, meaning that the potential syntactic productivity of degree modification from one derivational class to another must be viewed as fortuitous as often as necessary.

Falling between these two poles of relative lexicalization are those forms like extremely, completely, perfectly, absolutely, terribly, practically, etc., which are neither completely lexicalized nor

completely unlexicalized. These forms have relatively free distributions (although there are some cooccurrence restrictions with the perfectives like completely, absolutely, and perfectly, which will be discussed more in a later section), although the distributions are not as free as those of the lexicalized forms like very and quite. Extremely, is perhaps the most lexicalized of this lot, and this is a result of the lexical meaning of extreme itself. So, for example, in sentences like:

10. a. He is extremely lucky.
    b. She can type extremely fast.
    c. That is extremely unfortunate.

it is possible to make paraphrases which don't create any really harsh notes, e.g.:

a'. He is lucky to an extreme degree.
b'. She can type fast to an extreme degree.
c'. That is unfortunate to an extreme degree.

by virtue of the fact that what is intended is simply to extend the degree feature of the predicates to an extreme value on the scale. However, the lexical meaning of extreme can also include the idea of something done beyond the limits of probity. Thus, if extremely is used where extremity may be a vice, we get a discordant note in an adjectival paraphrase, e.g.:

11. a. He is extremely sensitive.
    b. He is sensitive to an extreme degree.

12. a. She is extremely pious.
    b. She is pious to an extreme degree.

In the (a) cases, the extremely means nothing more than very, but in the adjective paraphrase versions of (b), it may have negative connotations --indicating that one is overly sensitive or overly pious.

In other cases of such relatively unlexicalized degree modifiers, the skew between the degree modificaition use and the original lexical meaning is more quickly observed, e.g.:

13. a. He is awfully sick.
?He is sick to an awful degree.
≠ It is awful how sick he is.

b. He is awfully handsome.
*He is handsome to an awful degree.
*It is awful how handsome he is. (OK in litotes)

14. a. That car is terribly dangerous.
?That car is dangerous to a terrible degree.
≠ It is terrible how dangerous that car is.

b. That cake is terribly good.
*That cake is good to a terrible degree.
*It is terrible how good that cake is. (OK in litotes)

And it can be easily observed in the degree modification of nouns. When some adjectives occur with non-degree nouns, they may be predicative in meaning, and also occur attributively (Quirk and Greenbaum, 1973, 122), e.g.:

15. a. Their destruction was complete. their complete destruction
b. Their aim was perfect. their perfect aim

Clearly these are related pairs. However, with degree nouns, this kind of derivation is not possible, e.g.:

16. a. a complete idiot. *The idiot is complete.
b. perfect nonsense. *The nonsense is perfect.

In fact, these examples are clearly much more closely related to their adverbial counterparts than to their predicative parallels, e.g.:

17. a. a complete fool completely a fool
b. perfect nonsense perfectly nonsensical

This type of behavior results of course from the loss of the lexical meaning of the underlying form as it is used as a degree modifier, and

the corresponding lexicalization of just the extremity features originally involved. It is clear that this type of lexicalization of the extremity feature results in a lexical split, where the degree modifier must be taken as a separate entity.

It doesn't take long for this process to occur. It can occur as easily as one wants to use a word creatively to intensify a quality. A fairly recent example is worth noting, mainly for its currency. On the West Coast of the United States, advertising writers began publicizing record albums, especially rapidly thrown-together anthologies of rock selections, as Monster Albums, originally meaning simply large collections of popular selections. Gradually monster came to mean something like an album of popular rock pieces. From there we heard that a new album was a monster album or a song was a monster or monstrous hit, obviously with nothing of the original meaning of monster/monstrous, except perhaps to the parents of the consumers.

2.11.2. Semantic Functions

Degree modifiers can be classified according to the semantic functions they serve in their modification of the head item. The first classification on semantic grounds was made by Stoffel (1901). He divided degree adverbs into intensives and down-toners. Bolinger expands this two-way classification to four: boosters, compromisers, diminishers, and minimizers. Bolinger chooses to use the term intensifier for all degree modifiers. In his words: 'I use the term intensifiers for any device that scales a quality, whether up or down or somewhere between the two' (DW, 17). Thus he has to choose a

different name for the top of the scale, viz., booster. However, I will use degree modifier for what he calls intensifiers, reserving the latter for a particular class of boosters, which will be described in the next section.

Boosters are those degree modifiers that push values upwards on a scale. These may be upwards either toward approval or disapproval, that is, they make intensifiable qualities more intense, without respect to their connotations of either good or bad, e.g.:

18. a. She is very (awfully/terribly/ ...) happy/unhappy.
    b. He visits here very (awfully/terribly/ ...) often/seldom.
    c. Romeo loves/hates Juliet very much.
    d. That driver takes such (a lot of/ ...) care/risks.

On the other end of the scale, the minimizers downgrade the strongest implications of the degree word they modify, e.g.:

19. a. She's a bit of an idiot.
    b. He's a little crazy; don't mind him.
    c. What he told you is a bit of a lie.

For Bolinger, the compromisers are in the middle of the scale trying to look both ways at the same time, e.g.:

20. a. He's rather crazy, but I wouldn't say insane.
    b. She's fairly happy, but I wouldn't say ecstatic.
    c. He comes to visit fairly regularly, although not as much as I'd like.
    d. Romeo loves Juliet fairly well, although not enough to risk angering her family.

And finally, for Bolinger, the diminishers are in the lower end of the scale looking downwards toward the minimizers, e.g.:

21. a. The play was an indifferent success.
    b. They were little disposed to argue.

In fact, it is not always possible to draw a clear line between the last three classes when they are used in positive sentences. The problem

with the three divisions of compromisers, diminishers and minimizers is that it is often difficult to differentiate between them. For example, it is difficult to detect any difference between the (a) and (b) versions of sentences like:

22. a. He's rather an idiot. (Bolinger's compromiser)
    b. He's a bit of an idiot. (Bolinger's minimizer)

23. a. She is rather happy. (Bolinger's compromiser)
    b. She is sort of happy. (Bolinger's minimizer)

And the same degree modifiers may be taken to perform a different semantic function with different degree words. So, for example, if a degree modifier occurs with a weak adjective, there is one reading and with a strong adjective, there is another reading, e.g.:

24. a. He's rather pleased. (compromising, almost minimizing)
    b. He's rather exuberant. (compromising, almost boosting)

25. a. That's a fairly destructive argument. (almost boosting)
    b. That's a fairly interesting argument. (almost minimizing)

In the case of the more lexicalized modifiers discussed above, the problem is that as soon as we fail to boost, we imply something less than favor, and when predicates themselves carry boosting or diminishing characteristics, then the degree modifiers interact with these characteristics. Also, there is the problem of the use of understatement with positive and negative connotation words where the non-boosting modifiers may be used to damn with faint praise. For example, if Romeo had said (b) rather than (a) in (26), he might as well have kept quiet; even though the second version is compromising, it might as well have been minimizing, as (c) is:

26. a. Juliet, I love you very much.
    b. Juliet, I rather love you.
    c. Juliet, I sort of love you.

Similarly with negatively-tinged predicates. To say either (a) or (b) below is condemnatory, and the diminished version is not clearly any greater recommendation, e.g.:

27. a. He's very much of a quack.
    b. He's sort of a quack.

28. a. That's a total nonsense.
    b. That's a bit of nonsense.

29. a. He's very much of an idiot.
    b. He's a bit of an idiot.

30. a. She's very ugly.
    b. She's sort of ugly.

However, despite the functional shifts of meaning or emphasis, we will see evidence later that these four semantic classifications used by Bolinger have a good bit of semantic reality which is reflected in certain syntactic processes in addition to the ones he has noted. This will be discussed later in 2.13 when we examine scalar valences of different degree modifiers.

2.11.30. Cooccurrences

The relatively lexicalized degree modifiers can be classified by their ability to cooccur with different types of predicates and also, as we shall see, by their ability of modify each other. There are several differences in the behavior of these modifiers with adjectives and adverbs on the one hand and their behavior with verbs and nouns; it is therefore useful to deal with each of these categories separately.

There are several types of common degree modifiers which will not be dealt with consistently throughout the remainder of this chapter.

They are all modifiers which have limited distributions, either within the same lexical categories or between lexical categories. First are the three common degree modifiers well, all, and much. Bolinger (DW) has examined these in great detail and much of this discussion derives directly from his analysis.

Well has a number of restrictions in its distribution. Only the most salient are discussed here. As a pre-verb modifier, well has a limited distribution, and it displays two especially interesting and limiting characteristics (DW, 28 ff.). It is often restricted to verbs which convey fulfillment or completion. This makes it occur most easily with verbs which convey a sense of completed result. Thus it often improves with perfect aspect, passives and participal adjectives, e.g.:

31. a. *She well trains her voice. (DW, 34)
    b. *She well trained her voice.
    c. ?She had well trained her voice.
    d. She had her voice well trained.

32. a. *The candles well lit the room.
    b. ?The candles well lit up the room.
    c. The room was well lit up by the candles.

Second, well usually requires an approval connotation--if such is not present, then well can be used to indicate it. If a verb is clearly indicative of disapproval, well cannot occur, e.g.:

33. a. The play had well pleased the children.
    b. The detective has well satisfied our curiousity.
    c. His thoroughness had well impressed us.

34. a *His caution had well surprised us.
    b. *Your behavior has well disgusted me.
    c. *The lion had well mauled the hunter.
       (cf The hunter had well satisfied the lion's hunger.)

Well occurs easily with some adverbs, in particular adverbs of place and time, and their metaphorical extensions. With temporals it adds approval to the meaning, and comes into conflict with negatively-tinged adverbs, e.g.:

35. a. We were well on time.
    b. *We were well late for the party.

But with locatives the approval restriction doesn't seem to be as strong, perhaps because locatives seldom clearly convey either approval or disapproval. Some examples are:

36. a. We walked well beyond the mile-post.
    b. The fishing tackle is well back in the corner of the closet.
    c. We have been living well beyond our means.
    d. Unfortunately, my backhand cross-court shot was well out.
    e. ?He must be well in hell by now.
    f. ?She's well in seventh heaven after that date.

Well occurs with a limited number of adjectives, most easily with non-descriptive adjectives, i.e., adjectives which are somewhat verb-like, e.g.:

37. a. I am well aware of your problem.
    b. He is well worth your time.
    c. I had to get up before I was well awake. (DW, 38)
    d. Your solution is well thought-out.
    e. *She is now well happy.
    f. *She is well different from anyone else we know.
    g. *I was well careful of the sharp point.

Bolinger also notes that there is an accident/essence distinction at work with well modification of adjectives (DW, 38). If the adjective conveys a quality which is subject to change, which describes some non-essential, outside attribute, then it can be taken as accident. If it describes a quality which is inherent or essential, then it is

taken in the essence sense. Bolinger's examples:

38. a. I want a man who is well able to take care of himself. (accident)
    b. *I want a man who is well able and cheerful for the job. (essence)

39. a. George is a lad who is well alert to the possibilities.
    b. *George is a lad who is well alert. (an alert fellow)

Finally, and not unexpectedly, the type of adjective which well most likes is the de-verbal participal adjective, e.g.:

40. a. We were well pleased at their attitude.
    b. The troops were well loaded down.
    c. My shoes are well worn.

And even here the fulfillment and approval factors are important, e.g.:

41. a. His skin is well-tanned.
    b. *His skin is well-burned.
       (OK in Br.E., where burn = Am.E. tan)

42. a. We were well prepared for the attack.
    b. *We were well un-prepared for the attack.
       (cf OK quite un-prepared)

43. a. The knife was well sharpened. (= very sharp)
    b. *The knife was well dulled. (A positive reading may be possible here if for some reason it is desirable for the knife to be dull. Compare: OK The pain was now well dulled.)

All doesn't occur easily with verbs and even then only with passives--not even perfect participles will work, e.g.:

44. a. *The rain had all ruined my clothes.
    b. My clothes had been all ruined by the rain.

It seems likely that this restriction is at least partially due to the possible collision with 'floated' quantifier all, as in:

45. a. All of my clothes were ruined.
    b. My clothes all were ruined.
    c. My clothes were all ruined.
       (ambiguous between quantification and degree)

46. a. All of the flowers wilted in the heat.
b. The flowers all wilted in the heat.
c. The flowers all were wilted in the heat.
(acceptability varies)
d. The flowers were all wilted in the heat. (ambiguous)

The main characteristics of all degree modification with adjectives and adverbs is that it can occur only with predicates with the accident sense of the accident/essence distinction. (DW, 38-40, 47 ff). Thus all may occur with adjectives and adverbs as long as they are capable of a change of state, e.g.:

47. a. *He is all tall.
b. Just after Christmas he was all happy.

48. a. *The bridge is all wide at that place.
b. Her eyes got all wide with fear.

49. a. *I got up this morning all early.
b. Why are you so mad? We got here all early and everything.

Finally, much as a degree modifier is quite restricted. It tends to mark quantity rather than degree, and when used as degree is usually limited to occurrences with very and in questions with how, e.g.:

50. a. *Romeo likes Juliet much. (OK very much)
b. How much does Romeo like Juliet.

It has the well-known limitation to interrogative, negative and conditional sentence types, e.g.:

51. a. *I think much of that idea.
(cf I think a lot of that idea.)
b. I don't think much of that idea.
c. Do you think much of that idea?
d. If I thought much of that stock, I'd invest in it.

In pre-verb position, it occurs only with a few active voice verbs in rather restricted uses; there are scope of verb restrictions; it occurs

with neither large scope nor very small scope (DW, 196 ff), e.g.:

52. a. The herd much increased this year.
    b. *The herd much proliferated this year.

53. a. Her coming marriage much concerns us.
    b. *Her getting married to that clod much concerns us.

And it even has register and prosody restrictions, e.g.:

54. a. The stock has much declined this year. (formal)
    b. *The stock has much gone down this year. (informal)

55. a. His attitude much concern us. ('much con 'cerns)
    b. *His attitude much troubes us. ('much 'trou bles)

Otherwise, much is like well but without the approval restriction. It occurs easily with participials, including the passive:

56. a. *The sappers much harrassed us.
    b. We were much harrassed by the sappers.

57. a. *Your reply much surprised me.
    b. I was much surprised at your reply.

With adjectives it occurs freely with comparative type adjectives, e.g.:

58. That is much more than I expected.

59. She is much different from what I had heard.

60. He is much taller than last year.

Otherwise it is heavily restricted. We will see in Chapter 4 that much plays an important structural role in a systematic description of EXTENT.

These three degree modifiers have many other interesting characteristics, but since Bolinger has discussed them at length, there is little point in going into any greater depth than has been done here.

The two degree modifiers a little and a bit are also highly restricted in behavior. As noted earlier, they both have an implied

predication, even though it is sometimes not expressed, e.g.:

61. a. She's a bit fat. (... to wear that dress; ... to be attractive)
    b. He's a little old to be allowed to do that.
    c. She's a bit expensive in tastes for his pocketbook.

This implied predication makes these modifiers more like the complex, excessive too than like the simple degree modifiers discussed here. In fact, semantically, they seem to be diminisher version of the too...to type. We will not devote much discussion to them, although we will examine them in terms of scalar valence later in this chapter, and we will see in Section 2.12 that they each behave differently under negation.

2.11.31. A Cooccurrence Taxonomy

There is one fundamental division between the degree modifiers governing their cooccurrences with various possible heads. This division is between those degree modifiers which will modify 'relative' heads and those which will not. This division is most easily seen with adjectives and adverbs, although it is also relevant in examining degree modification of verbs and verb phrases. It appears to have no relevance to degree modifications of nominals, for reasons which will be discussed when we examine degree cooccurrences with degree nominals.

While the division between relative and non-relative modifiers is the basic one considered here, there are other sub-classes which can be made, each of which exhibit certain special characteristics of its own. In some cases, these sub-divisions are based on the semantic functions discussed in the previous section and thus indicate the overlap between

function and cooccurrence. Also, no doubt, if we examined each of these sub-classes further we would find increasingly finer cooccurrence and semantic distinctions, perhaps until we reached the absolute limit of cooccurrence -- the individual lexical item, which almost seems to be the destiny of degree modification analysis. However, the following classes and sub-classes will provide us with a working taxonomy for exploring some of the more gross divisions. And we will see in Section 2.13 that some of these divisions have further syntactic and semantic validity.

We will examine the taxonomy first with adjectives and adverbs, and then with nominals, and finally with verbs and verb phrases.

2.11.32. Cooccurrences with Adjectives and Adverbs

When we examine the cooccurrence patterns of degree modifiers with adjectives and adverbs, there seem to be three major divisions and some sub-divisions in each of the three major ones. The following list illustrates these divisions and sub-divisions and gives examples of each.[8]

Classes:	Examples:
I. discriminators (occur with non-relatives or absolute heads)	
a. completives	completely, absolutely, perfectly, totally, ...
b. approximaters[9]	almost, all but, nearly, practically, ...
II. intensifiers (occur with relative heads)	
a. iterative	very, terribly, awfully, really, ...
b. graduated	extremely, exceedingly, ...

c. attitudinal remarkably, surprisingly, really, ...

III. indefinites (occur with both relative and non-relative heads)

a. boosters quite, sure(ly), truly, ...

b. compromisers sort of, kind of, rather, fairly, ...

The major division in this classification really comes between Class I and Class II. Modifiers from Class II can occur with relative adjectives and adverbs like tall, wide, fast, frequently, etc., while Class I types cannot, e.g.:

62. a. John is very (extremely, surprisingly, ...) tall.
b. That car ran very (extremely, remarkably, ...) fast.

63. a. *John is almost (completely, ...) tall.
b. *That car ran almost (completely, ...) fast.

On the other hand, Class I modifiers can occur with adjectives and adverbs like open, here, and on time which describe absolute states, e.g.:

64. a. *The door is very (extremely, surprisingly, ...) open.
b. *We expect the train to be very (extremely, surprisingly, ...) on time.

65. a. The door is almost (completely, ...) open.
b. We expect the train to be almost (absolutely, ...) on time.

Semantically, the differences are clear. The distinction is between states which are usually categorized as relative, that is, subject to scaling along a continuum, versus those which are conceived as absolute, that is, fixed and non-scalable. This difference is also reflected in questions about degree. Questions about degree with absolute predicates are at best strange, e.g.:

66. a. ??How open is the door?
b. ??How on time is the train?

Both may be improved somewhat in acceptability by the addition of possible modification adjectives, in which case the questions ask about the adjectives, and this is a result of other features of the modified predicates which we will discuss below. Here are some examples with modifying adjectives which allow a somewhat more acceptable question:

67. a. How wide open is the door? or How wide is the door open?
    b. How exactly on time is the train?

Many (probably most) adjectives and some adverbs, in particular manner adverbs, are neutral with respect to this semantic classification and readily accept degree modifiers from either Class I or II, e.g.:

68. a. John is (very/almost/completely, ...) crazy.
    b. His daughter behaved (very/almost /completely, ...) childishly.

With Class I, it is necessary to make a further two-part division based on cooccurrence possibilities. There are some predicates which allow one type without allowing the other, e.g.:

69. a. The victim is almost dead.
    b. *The victim is completely dead.

70. a. *The door is almost open.
    b. The door is completely open.

Neither <u>dead</u> nor <u>open</u> can occur with the Class II intensifiers, for the obvious reason that in their literal senses, they describe absolute, discrete states--at least the language classifies them this way. It is possible (perhaps predictable) that such classifications will change in time. For example, with the adjective <u>dead</u>, it seems predictable that given the state of medical technology, the definition of death will become increasingly relative, e.g., so much electrocardiac activity, so much electroencephalagraphic activity, such and such a metabolic index,

etc. until death will be techonologically relative, and popular usage will no doubt follow the technology. In any case, for now anyway, the language classifies dead as absolute.

There are two basic types of absolute predicates: totally absolute, and relatively absolute. The totally absolutes are confined to the measure phrases, e.g. 10 feet wide, 6 feet tall, etc., and only the approximaters can modify them. The relatively absolutes can be divided into two classes themselves: completed state and non-completed state. For example, dead is viewed as a completed state; it is not subject to any further scalar modification. Thus the approximater modifiers like almost, which indicate something just short of a completed state are acceptable in a sentence like (69.a) above, as well as with measure phrases, as in:

71. The bridge was almost (nearly, about ...) 6 feet wide.

the completive modifiers, which indicate some further advancement to a completed state, cannot modify predicates which already indicate a completed state, perhaps simply because it would imply a ludicrous redundancy.

On the other hand, some absolute predicates like open, while they imply a discrete change of state, i.e. an either/or state, e.g., from closed to open, are still viewed as capable of further openness. There is a clearly recognized line between closed and open: once a door, for instance, is no longer closed, it can only be described as open. While this is a new state, it does not have to be viewed as completed, because in the state of openness, it can be opened even further, and thus is susceptible to being boosted up to the fullest account of its openness,

i.e. completely open. This, of course, implies that there is an attainable limit which can be reached. Many adjectives which by their nature are not really completive or even absolute, like beautiful, crazy, fanciful, etc., are often used as if they were in fact completive, perhaps in some kind of a metaphorical process, e.g.:

72. a. That girl is absolutely beautiful. (cf very beautiful)
    b. Your brother is totally crazy. (cf very crazy)
    c. Nixon's account of Watergate was completely fanciful. (cf very fanciful)

This is really a type of hyperbole in which something which is not really completive by its own nature is treated as if it were for boosting effect.

The opposites of the two adjectives open and dead illustrates an interesting semantic phenomena. The opposite of open is of course closed, or perhaps shut, but neither of these has the same distinction between completed state and non-completed state, e.g.:

73. a. The door is almost closed/shut (cf *almost open)
    b. The door is completely closed/shut.

The situation is different with the opposite of dead. Alive is not even a degree word; in its literal sense, it cannot easily be modified by any degree modifier, e.g.:

74. a. *The patient is very, (almost/completely/surprisingly/..) alive.

It is clear in both of these cases, i.e. of closed and alive, that the restrictions have to do with human perceptions of the world rather than the nature of the qualities themselves. And the restrictions are very fragile. Given the slightest chance, they may fall away. For example, when the absolute words open and dead are used literally, the

restrictions seem to fall completely, e.g.

75. a. After all of those consciousness-raising sessions, her mind is very (almost/completely/ ...) open now.
b. That issue is very (almost/completely/...) dead now.

Within Class II, the various sub-classes seem to be fairly unified. There are few, if any, restrictions on their cooccurrences with predicates--if one can occur they all can. This is a reflection of two things. They are all unified in their sense of intensiveness, and any relative predicate will be subject to this type of semantic boosting. Second, they are among the most lexicalized of all the degree modifiers and therefore have the least vestigial cooccurrence restrictions remaining.

Class III in the taxonomy is much less unified in its behavior and cooccurrences than the first two classes. It is really something of a farrago in terms of classficiations. Class III modifiers can occur with both relative and absolute predicates, e.g.:

76. a. John is sort of (rather/quite/certainly/ ...) tall.
b. The door is sort of (rather/quite/certainly/ ...) open.

And for the most part they don't seem to distinguish between completive and non-completive senses, e.g.:

77. The victim is sort of (rather, quite, certainly, ...) dead.

However, with the exception of <u>sort of</u> and <u>kind of</u> they don't parallel <u>almost</u> to the extent that they can occur with the totally absolute predicates like measure phrases, e.g.:

78. *The bridge is quite[10] (sure/certainly/[11] ...) 8 feet across.

<u>Sort of</u> and <u>kind of</u> are interesting in their own right; they are the quintessential compromisers. They can be used with practically any

adjective or adverb to prevent the speaker from having to commit himself to a strong assertion of any kind, e.g.:

79. a. Well, he was kind of fat, and sort of 6 feet tall.
    b. She was sort of pregnant, I guess.
    c. I suppose he was sort of dead when I found him.

We can now turn to a discussion of other criteria for the three classes. The sub-types of Class II are more or less self-evident. All of the members of IIA (the <u>iteratives</u>) are capable of being repeated, while IIB and IIC are not, e.g.:

80. John is $\left\{\begin{array}{l} \left\{\begin{array}{l}\text{very, very}\\ \text{terribly, terribly}\\ \text{awfully, awfully}\end{array}\right\} \\ * \left\{\begin{array}{l}\text{extremely, extremely}\\ \text{surprisingly, surprisingly}\end{array}\right\}\end{array}\right\}$ sick.

There are some other modifiers outside of this class which seem marginally acceptable, e.g.:

81. ?I am thoroughly, thoroughly tired of your play-acting!

And the relatively unlexicalized degree modifiers seem to be totally unacceptable in repetition, e.g.:

82. a. *The plutonium is searingly, searingly radioactive.
    b. *He was brutally, brutally beaten up.
    c. *He was crazily, crazily happy.

At first, it might appear that the distribution of iteration is determined by prosody -- a type of euphony rule. However, the distribution cannot be accounted for solely by phonetic shape and stress. <u>Fairly</u> and <u>rather</u> have approximately the same shape and stress as <u>very</u>, but they cannot be iterated.

If the sentence of (81) is accepted, there seem to be three factors governing iteration in the degree modifiers. First, the word must have

the appropriate syllable and stress pattern, viz., be a polysyllabic word with primary stress on the first syllable. This condition accounts for why extremely is bad; the primary stress falls on the second syllable. Second, the word must be intensive in meaning and use; it must be a boosting modifier. The meaning of iteration, like the other prosodic modifications for degree, such as vowel nucleus stretching, is intensive. This condition explains why fairly and rather don't iterate; they are compromisers. Third, the word must be a lexicalized modifier; it cannot carry further lexical meaning of its own because this meaning would intrude on the intensification function and reduce its effect. This condition explains why the unlexicalized degree modifiers of (82) are bad. It also explains why degree modifiers which derive from sentence modifiers and which have the appropriate phonetic shape, such as certainly, cannot iterate, e.g., as in:

83. *He's certainly, certainly sick.

These too, despite the change from true sentence adverb meanings to intensifier meaning, still carry something of their lexical properties with them. This will be expanded on below with regard to other cooccurrence possibilities of the sentence adverb types of intensifiers.

The other distinction among the Class II types divides the B types from the C types. The C types are those which are derived historically from sentence adverbs, and which still have true sentence adverb counterparts. The B types are typically those derived originally from manner or descriptive adverbs which show scalar values, e.g. extremely, exceedingly, etc. Aside from the historical derivational differences, there are clear functional differences. The clearest of these has to

do with the sentence types in which they can occur. Both the IIA and IIB types can occur in all types of sentences: declaratives, imperatives, interrogatives, conditionals, and negatives. However, the C types cannot occur easily in imperatives, interrogatives, negatives, and conditionals. (Henceforth, this general group of sentence types will be referred to by the acronym INC.) [12]

84. a. When he comes in, act { very / extremely / *remarkably } angry!

b. Did he look { very / extremely / *surprisingly } angry?

c. He didn't look { very / extremely / *astoundingly } angry to me.

d. If he's { very / terribly / *surprisingly } angry, I don't want to talk to him.

The reason for this failure of type IC degree modifiers to occur with INC sentences is fairly straghtforward. True sentence adverbs like remarkably, certainly, surprisingly, etc. give subjective speaker assertions and/or attitudes about the sentences they modify. Excluding the imperative, the INC sentence types all indicate lack of knowledge about, doubt about, or negation of, the assertions of the sentence. Therefore, the use of one assertion in a sentence adverb and a contradictory assertion in the sentence is logically contradictory and in these cases seems to be syntactically prohibited. When the sentence adverb types shift over to become degree modifiers, they still carry this INC restriction with them, either simply by lack of analogy or because they retain some of their lexical properties even after the

functional shift. The failure of the sentence adverb types in the imperative as in (84. a.) arises from the inability of one receiving a command to act in such a way as to guarantee an attitude on the part of the one giving the command.

There is one final thing which might be mentioned about this cooccurrence taxonomy. Degree modifiers can modify all of the other lexical classes; they also can modify one another within certain limits. Members of one class don't easily modify members of another class, e.g.:

85. The director is { * { very almost / completely remarkably / remarkably totally / very quite / almost sure } / { really quite / really rather } } angry

But members of Class II may modify each other. The A type may occur before both the B and C types, but neither of them can precede the A types, nor can they precede each other, e.g.:

86. John is { very extremely / very remarkably / *extremely remarkably / *surprisingly exceedingly / *extremely very / *remarkably awfully } sick

Given the prosodic restrictions we saw earlier, it seems likely that this restriction of only the iterative intensifiers being able to modify the other intensifiers is also a prosodic restriction.

In Class I, the A types may modify the B types, but not <u>vice versa</u>,

e.g.:

87. The patient is $\left\{\begin{array}{l}\text{almost completely}\\ \text{*completely almost}\end{array}\right\}$ well.

This seems to be purely a result of the semantics involved with the approximators and the completives; the approximators denote failure to be complete, and therefore a completive modifying an approximator would be contradictory.

The Class III types don't easily occur with the other two classes, although rather and quite seem marginally OK in some instances, e.g.:

88. a. ?She seems rather terribly tired. (Better for Br.E.)
    b. ?She's quite terribly fond of him.

And the Class III types don't occur with each other, e.g.:

89. *That girl is $\left\{\begin{array}{l}\text{sure quite}\\ \text{rather quite}\\ \text{quite sure}\\ \text{sort of rather}\end{array}\right\}$ foolish.

Bolinger claims, in a slightly different context, that only diminishers and boosters can be modified by other degree modifiers (DW, 153), and in general this seems to be true. However, it is not the complete story because it is clear that the Class III types like quite and sure are boosters, but they cannot be modified by other degree modifiers. And the concept of boosters or diminishers being able to be modified does not account for the ordering relations among the Class II types, as illustrated in sentence (86) above; they are all boosters. We will see a somewhat clearer pattern emerge when we examine these modificational combinations in the section on scalar valence, 2.13.

While it is certain that the taxonomy offered in this section, based on various cooccurrences, is defective in many ways, and hides a

multitude of cooccurrence sins, the fact that so many of the cooccurrence criteria used to differentiate among the types of degree modifiers reinforce each other gives support to the taxonomy's usefulness. Furthermore, we will see below that there are other characteristics of the various lexicalized degree adverbs which at least partially reflect the sub-categories of the taxonomy in quite interesting ways.

2.11.33. Cooccurrence with Degree Nouns

With degree nouns, there is no basic division between relative and absolute. If a noun can be a degree noun, i.e., if it can assume adjectival or predicate qualities, then it is automatically relative; this is to be expected, since non-degree nouns typically identify either actual things or abstract entities or states. Thus, once a noun becomes <u>degree</u>, i.e. is used to suggest scalable properties, it is expected that it will be relative, susceptible to scalar boosting or downtoning.

There is a striking fact about the occurence of Class II modifiers with degree nouns; only <u>very much (of)</u> can occur pre-nominally; none of the others can, e.g.:

90. a. *He is terribly a fool.
    b. *He is extremely an idiot.
    c. *He is remarkably a quack.
    d. *That is terribly nonsense.

However, the adjectival form of the IIA types may occur in intensive use inside of the noun phrase, e.g.:

91. a. He is a terrible (awful) fool (idiot/quack/ ...)
    b. That is terrible (awful) nonsense (foolishness/ ...)

However, the Class IIB and IIC types cannot so occur in intensive use,

e.g.:

92. a. *He is an extreme (remarkable, ...) fool.
b. *That is extreme (remarkable, ...) nonsense.

This is a result of the phenomena noted earlier about the relative degrees of lexicalization; terribly and awfully and their adjectival forms used here, are more lexicalized than the extremely and remarkably types. Thus, the latter types cannot be used as degree modifiers with nominals; they revert to their original lexical adjectival meanings.

With the completive types, completely, totally, etc., their function of pushing a meaning to a final state allows them to be used in the adjectival forms as well as in the adverbial forms, e.g.:

93. a. He is a complete (total ...) fool.
b. What he says is complete (total ...) nonsense.

All of the Class III modifiers can occur modifying the degree nouns, outside of the noun phrase, e.g.:

94. a. He is rather (sort of, quite ...) an idiot.
b. That is rather (sort of, quite ...) nonsense.

And they cannot occur inside if the noun phrase, e.g.:

95. *He is a rather (sort of,quite, ...) idiot.

indicating their origins and status as degree adverbs rather than as adjectives which acquired degree modifier status.

2.11.34. Cooccurrence with Verbs and Verb Phrases

We have already noted that EXTENT with verbs tends to consist largely of either quantity, inherent or attributed, or the extension provided through incorporated qualities, adverbial in most cases, but adjectival in the case of de-adjectival verbs. This particular fact

about EXTENT modification of verbs leads to one of the most striking aspects of the cooccurrence possibilities outlined in the taxonomy. The Class II modifiers, viz., the intensifiers, cannot modify degree verbs or verb phrases without overt markers of quantity. We have already noted that very cannot modify verbs alone; it must always occur with much, or some other marker of quantity, such as frequency. Thus we find distributions like this (where so serves as the diagnostic of degree):

96. a. The children chattered so!
    b. *The children chattered very. or *The children very chattered.
    c. The children chattered very much.

97. a. Romeo loves Juliet so!
    b. *Romeo loves Juliet very. or *Romeo very loves Juliet.
    c. Romeo loves Juliet very much. or Romeo very much loves Juliet.

And, turning our attention to the other relatively lexicalized intensifiers, we find that few of them occur easily with degree verbs or verb phrases. Thus, with a wide variety of types of verbs (durative/non-durative; completive/non-completive; event/non-event, and resultant condition),[13] there are few acceptable cases of degree modification[14] by any of the Class II types, all of which will accept so, e.g.:

98. a. The children grieved for their mother so!
    b. *The children grieved for their mother extremely. (OK terribly, *remarkably ...)

99. a. The light flashed so!
    b. *The light flashed extremely (terribly, remarkably ...)

100. a. The shot paralyzed him so!
     b. *The shot paralyzed him extremely (?terribly, *remarkably ...)

101. a. The Frost show damaged Nixon so!
b. *The Frost show damaged Nixon extremely.
(OK terribly, *remarkably ...)

102. a. The two armies fought each other so!
b. *The two armies fought each other extremely.
(OK terribly, *remarkably ...)

103. a. The little girl wanted a doll so!
b. *The little girl wanted a doll extremely.
(OK terribly, *remarkably ...)

104. a. The odor permeated the carpet so!
b. *The odor permeated the carpet extremely.
(terribly, remarkably ...)

105. a. The Corps of Engineers had deepened the lake so!
b. *The Corps of Engineers had deepened the lake extremely.
(terribly, remarkably ...)

Verbs which incorporate adverbs fare no better in this respect, e.g.:

106. a. *The wave engulfed the boat extremely.
(terribly, remarkably ...)
b. *The detective scrutinized the letter extremely.
(terribly, remarkably ...)
c. *The actors whispered extremely.
(terribly, remarkably ...)

Nor do de-adjectival verbs, e.g.:

107. a. *The scar tissue had reddened extremely.
(OK terribly, *remarkably ...)
b. *The ice cream had hardened extremely.
(OK terribly, *remarkably ...)

There are certain adverbs which act as intensifiers which occur in stereotyped uses with certain, limited types of verbs and verb phrases (DW, 248 ff). Hard and badly provide good examples, e.g.:

108. a. Does your father work hard?
(= work a lot, do a lot of work)
b. He's just not studying hard. (= studying a lot)

109. a. They wanted a new car badly.
b. The electorate rejected that proposition badly.
c. The team lost the game badly.

Terribly falls into this type of usage with some verb types, e.g.:

110. a. They enjoyed the play terribly. (*badly)
b. Juliet loved Romeo terribly. (OK badly)

Additionally, there are many descriptive adverbs, none of which are lexicalized as intensifiers, which can be used intensively with verbs and verb phrases (DW, 242-43), e.g.:

111. a. They vastly overplayed their hand.
(cf. ... overplayed their hand so)
b. They strongly objected to my comment.
(cf. ... objected to my comment so)
c. The voters overwhelmingly defeated the measure.
(cf. ... defeated the measure so)

It is clear in cases like these that it is the extremity feature of the descriptive adverb which serves the intensive function, and if we substitute milder versions of the adverbs, there is no intensification, e.g.:

112. a. They half-heartedly overplayed their hand.
b. They mildly objected to my comment.
c. The voters lukewarmly defeated the measure.

In these cases the adverbs are taken to be manner, with little if any degree modification, except perhaps with the stronger verb like overplay in (112. a) where the use of the weaker descriptive adverb allows for a diminishing effect.

The important point here is simply that with few exceptions, the relatively lexicalized degree modifiers which the cooccurrence taxonomy labels intensifiers do not modify verbs or verb phrases, the exceptions being mainly various kinds of stereotyped collocations. In this respect it is worth noting that both very and so, the most lexicalized of the intensifiers, can occur with much. In fact, as we have noted, there are

instances where <u>much</u> is required for <u>very</u> to be used, e.g.:

113. I $\left\{\begin{array}{l}\text{* very}\\ \text{very much}\end{array}\right\}$ like pistachio ice cream.

<u>So</u> seems to be able to drop the <u>much</u> more or less freely; however, most of the other lexicalized intensifiers do not usually occur with <u>much</u>, e.g.:

114. I like pistachio ice cream $\left\{\begin{array}{l}\text{so (much)!}\\ \text{* }\left\{\begin{array}{l}\text{terribly}\\ \text{awfully}\\ \text{remarkably}\end{array}\right\}\text{ much!}\end{array}\right\}$

And as we have seen and noted, verbs and verb phrases are most typically extended for <u>quantity</u> and not for <u>degree</u>. Thus, this restriction on the intensifiers seems to result from their failure to collocate with <u>much</u>, the quantity marker, and thus their larger failure to cooccur with most verbs and verb phrases.[15]

An interesting set of phenomena obtains in the passive voice. Most verbs do not allow the intensifiers in their passive voice forms anymore than they do in the active, e.g.:

115. a. *The shot extremely paralyzed him.
b. *He was extremely paralyzed by the shot.

116. a. *The voters rejected the measure terribly.
b. *The measure was terribly rejected by the voters.

However, with a certain class of verbs, we find acceptable Class I modification in the passive, but not in the active, a.g.:

117. a. *The events discouraged us extremely.
b. We were very (extremely, terribly, ...) discouraged by the events.

118. a. *Harry's shout surprised me extremely.
b. I was very (extremely, terribly, ...) surprised by Harry's shout.

119. a. *Susan's equation mystified me extremely.
b. I was very (extremely, terribly, ...) mystified by Susan's equation.

The class of verbs which allows this type of degree modification seems to be limited to a small class of verbs which Postal (1968) has called 'psychological predicates,'[16] verbs which describe states of mind. Furthermore, they seem to be limited to verbs which in the active make patients of objects. Verbs which describe mental states of patient subjects in the active don't allow the degree modification in the passive, nor do verbs which make patients of objects but do not describe mental states, e.g., respectively:

120. a. The demonstrators feared the police.
b. *The police were very (extremely, terribly ...) feared by the demonstrators.

121. a. The light attracted the bugs.
b. *The bugs were very (extremely, terribly ...) attracted by the light. (cf OK ... to the light)

Essentially what is happening, as noted above, is that the lexicalized intensifiers do not generally modify verbs; they are more the modifiers of adjectives and adverbs. However, the participles stand at the boundary between verb and adjective (DW, 167 ff). It is possible to find contrasts between the verbal sense of a passive participle and the adjectival sense of a participial adjective, e.g.:

122. a. The old boat was very weathered. (adjective)
b. The new paint had been weathered overnight by the sand storm. (passive verb) (NB. ... *very weathered)

Participial adjectives describe resultant states. Thus it is not by accident that the one set of verbs which may accept intensifiers in the passive are verbs which indicate a resultant condition in their patients. Why this should be restricted (at least in my speech) to verbs

describing only resultant mental states or to verbs describing patient objects remains obscure.

With the other classes of the taxonomy, we find no surprises in their modification of verbs and verb phrases. The occurrences are governed by semantic compatibility of modifier with head, just as was true with the modification of adjectives and adverbs.

The approximaters of Class IB like almost and nearly behave much as they did with the adjectives described earlier. With adjectives the approximaters have to occur with completed state adjectives, that is with adjectives which describe a state which has already been fully attained. With verbs there is a parallel, except with verbs the possible permutations for tense and aspect makes for far greater complexity.

First of all, the approximaters must be used with verbs which are capable of completion; thus non-completive verbs, including non-event verbs, do not easily occur with approximative modification, although this is obscured by the fact that almost can be taken in the sense of performative modification with many non-completive verbs, on the pattern of the modification of the performative meaning noted in almost modification of result verbs like kill.[17] So for example, in a sentencce like:

123. John almost killed Max.

there is ambiguity between the almost modification of the verb as in (a) and the almost modification of the performative as in (b):

a. John did something; that act almost killed Max.
b. John almost did something; that act would have killed Max.

With non-completive verbs like build, damage, resist, etc. almost can occur, e.g.:

124. a. The kids almost damaged the Smith's car.
b. My uncle almost resisted the arrest.
c. The power company almost built a new reactor there.

but there is none of the ambiguity of (123); there is only the reading of almost modification of the performative sense; there cannot be almost modification of the verbal senses themselves because those verbs are non-completive. This can be illustrated by using a perfective aspect,[18] which pushes verbs through to a sense of completion (often nullifying the possible performative sense in the process). In each case almost clearly cannot occur with the non-completive verbs, e.g.:

125. a. *When we got there, the kids had almost damaged the Smith's car.
b. *Before the lawyer arrived, my uncle had almost resisted the arrest. (cf ... had almost avoided...)
c. *Until the Sierra Club intervened, the power company has almost built a reactor there. (cf ... had almost finished ...)

Non-event verbs like want, like, admire, etc. don't occur at all with the approximaters because they can never be completive and by definition do not have a performative sense. Some examples are:

126. a. *I almost wanted a drink of water.
b. *I nearly liked Bogdanovitich's last film.
c. *Harry almost admires Picasso's later work.

With completive resultative verbs like permeate, dissolve, saturate, etc. almost occurs most easily with a perfective aspect which allows the verb to be taken as completed. So for example, compare the differing acceptability of the following sentences with different aspect:

127. a. *The ink is almost permeating the tissues.
b. ??The ink almost permeated the tissues.
c. The ink has almost permeated the tissues.
d. The ink had almost permeated the tissues.

128. a. *The solvent is almost dissolving the sulphur.
b. ??The solvent almost dissolved the sulphur.
c. The solvent has almost dissolved the sulphur.
d. The solvent had almost dissolved the sulphur.

129. a. *The nitrate is almost saturating the cotton.
b. ??The nitrate almost saturated the cotton.
c. The nitrate has almost saturated the cotton.
d. The nitrate had almost saturated the cotton.

The Class IA completive degree modifiers like completely and absolutely also behave consistently with the semantic characteristics observed in the analysis of their occurrence with adjectives. They cannot of course occur with non-completive verbs, e.g.:

130. a. *The accident completely damaged the car.
(cf ... completely ruined ...)
b. *The power company absolutely built the nuclear plant.
(cf ... absolutely destroyed ...)

Non-events verbs by and large do not accept the completives for obvious semantic reasons, e.g.:

131. a. *I wanted a new car completely.
b. *The audience completely admired his virtuosity at the keyboard.
c. *She totally appreciated his proposal.

However, certain verbs which would normally be classified as non-event verbs seem to be able to occur with completive modification. These are verbs with strong emotional connotations like love and hate and their strong version synonyms. Weaker synonyms don't allow the completives nearly as well, e.g.:

132. a. I completely love (adore) pistachio ice cream.
(cf *... completely like ...)
b. He absolutely hates to take baths.
(cf *... absolutely dislikes ...)

133. a. Romeo loves Juliet completely.
(cf ... *likes Juliet completely ...)
b. The Capulets totally hate the Montagues.
(cf ... ?totally dislike ...)

This seems to be a type of conscious hyperbole, where normally non-completives are allowed to occur with completive degree modifiers for their boosting effect.

With completive resultative verbs, unlike the almost type, the completives do not require the perfective aspect to make them acceptable since their semantic effect is exactly that of perfective aspect, e.g.:

134. a. The dye absolutely permeated the cells.
b. The solution totally saturated the cloth.
c. The particles completely dispersed in the liquid.

Not unexpectedly, the indefinite boosters of Class III display little unity of behavior. The only one to be discussed here is quite. This is because quite shows very interesting distribution, especially with respect to negation, which we will examine in more detail in the section devoted to negation with degree modifiers. With quite, we find a complex set of cooccurrence restrictions. As Bolinger notes (DW, 223 ff.) quite is fundamentally perfective. As such it occurs easily with the completive verbs and not at all with the non-completive, e.g..

136. a. That spill quite ruined my new tie.
(cf ... *quite stained ...)
b. Fear quite paralyzed me.
(cf ... ??quite scared me ...)

137. a. *The fall quite damaged the chandelier.
b. *All of the people quite feared the police.

138. *Ali quite wanted to fight Foreman.

With verbs of emotion, the stronger versions are more likely to be

acceptable with quite than the weaker ones, (DW, 224-25) e.g.:

139. a. Juliet quite adores Romeo. (cf ... ??quite likes ...)
b. I quite abhor the idea of handling snakes.
(cf ... ?quite dislike ...)

And verbs of result easily accept quite provided that they are completive, e.g.:

140. a. Mendacity quite permeates this whole household.
(OK ... completely permeates ...)

141. a. *The Atlantic Trench quite deepens there.
(cf ... *completely deepens ...)
b. *When oxygen was introduced, the flame quite reddened.

To conclude this section, we can see that by and large the taxonomy devised for adjectives and adverbs does have many parallels in the modification of verbs and verb phrases, although the conditions governing the modifications are considerably more complex than those present with adjectives and adverbs.

2.12. Negation with Degree

2.12.10. Negation with Intensifiers

Negation with degree modifiers is both interesting and frustating. It is interesting because it reveals often unexpected semantic facts lurking amid the syntactic underbush. It is frustrating because it won't easily stand still for examination. As soon as you think you've got it trapped, it slithers away. Negation is heavily influenced by pragmatic considerations,[19] and these considerations make the examination of negation with degree modification all the more slippery. I will not attempt a fully comprehensive account of negation with degree

modifiers; that is probably a whole thesis of its own. I will, however, try to note factors which will be revealing in further examination of both degree and quantity, and factors which will be important for any consideration of the syntactic and lexical representation of EXTENT.

Probably the most important factor in negation with degree has to do with amount of lexicalization of the modifiers. The greater the degree of lexicalization, the more complex the factors governing its interaction with negation. If a modifier is more or less unlexicalized for degree--that is, if it retains it own lexical properties, and serves a degree function coincident to its own lexical status, the negation will be relatively straightforward and predictable from one modifier to another. For example, we noted earlier that many adverbs with extremity features can serve degree functions as well. Thus in a sentence like:

142. Plutonium is searingly radioactive.

searingly serves as a degree modifier meaning roughly very or extremely. And it also retains its other lexical properties meaning something like 'associated with exceedingly hot temperatures' from the meaning of the adjective searing. Thus we might expect a hyperbolic and metaphorical usage like:

143. The Prime Minister delivered a searingly worded retort to the back bench.

We would not expect further use of only the extremity feature to allow,

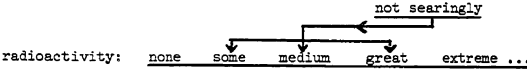
e.g.:

144. a. *She was searingly mistaken.
(cf ... extremely mistaken)
b. *The play was a searing success.
(cf ... extreme success)

When a non-lexicalized intensifier is negated, what is negated is the degree feature of the modifier. Thus in a sentence like:

145. But Uranium isn't searingly radioactive like Plutonium.

the meaning of the negation is a denial of the extreme degree. Diagrammed on a scale, the negation could be represented something like this:[20]



The negation leaves open the question of what degree below extreme it is. It simply denies the extreme end of the scale. This can be seen in the three possible continuations of

146. Uranium isn't searingly radioactive;
a. but it's still too hot to be used for that process.
b. so we can use it, if it's acceptable in output.
c. in fact, we'll still have to enrich it.

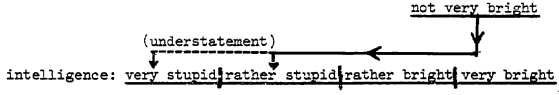
For expository purposes this type of negation will be referred to as extremity negation, meaning that it negates only the extreme degree, leaving any other value, except none as a possible interpretation.

The reason for what for what may appear an overly tedious definition becomes clear as negation of relatively lexicalized modifiers is considered, in particular the intensifiers like very, terribly, awfully, extremely, remarkably, etc.[21] Consider the following sentence

and its negative:

147. Have you met Max's new girl friend?
  a. She's very bright.
  b. She's not very bright.

Here the negation is not extremity negation, denying the extreme end of the brightness scale. It is taken to mean she is rather stupid or more strongly, through understatement,[22] that she is very stupid. Thus the negative is asserting the values on the other end of the scale. This can be illustrated diagrammatically like this



This is not a particular property of the adjective bright, but of the intensifier. The same sense is obtained with a variety of types of predicates, e.g.:

148. a. That last dinosaur bone wasn't very radioactive.
  (= rather inactive)
  b. Romeo doesn't love Juliet very much. (= rather little)
  c. She doesn't visit very frequently. (= rather seldom)

This type of negation will be referred to as reversal negation because the result is an assertion of a value somewhere on the opposite end of the relevant scale.

Most of the relatively lexicalized intensifiers (i.e., those of Class II, in Section 2.11.30) behave much like very with respect to exhibiting this reversal negation. Compare the meanings of the

following, all in the same syntactic frame:

149. Have you met Max's new girl?
She's not { very / too / overly / terribly / awfully / extremely / remarkably } bright.

Different predicates do show variation in the degree to which they allow reversal negation rather than extremity negation. If the predicate is heavily marked in some way, an extremity negation reading is more likely than reversal. Consider this sentence using the strong adjective smashing for pretty:

150. Have you seem Max's new girl?
She's not { very / too / terribly / awfully } smashing.

Here, for me at least, extremity negation is by far the predominate reading. She could still be rather pretty; it only denies that she is extremely pretty. This has to do with the pragmatics surrounding the choice of smashing. It would not have been used unless the speaker assumed that his audience had pre-conceived notions of how good-looking the girl was; for example, maybe Max is know for having only very beautiful girl friends. Other examples where an extremity negation reading may be more likely than a reversal negation are:

151. a. The new President's not very expert in Foreign Affairs.
(≠ rather inexpert)
b. She wasn't terribly glamorous in that role.
(≠ rather tacky)
c. The Market's not awfully bullish right now.
(≠ rather bearish)

Similarly, on the other end of the positive-negative spectrum, if a negatively-tinged predicate is modified by a negated intensifier,

there will be only extremity negation, e.g.:

152. a. She isn't very discouraged. (≠ rather encouraged)
b. He wasn't awfully miserly. (≠ rather charitable)
c. She's not terribly upset. (≠ rather calm)
d. She didn't annoy me much. (≠ rather pleased)

2.12.11 Negation with Other Types of Degree Modifiers

Examining negation with other common modifiers has to be done almost on a case-by-case basis. Negation of the completives of Class IA like completely, totally, absolutely, etc. usually produces only a slight modification in the meaning of the modifier. The completives occur with predicates which have a possible completion point, an end point. And they assert the end point, the completion of the action or process. Thus in sentences with true completive predicates, the denial of the completion denies only the completion; it still allows the assertion of a high degree of the quality. Consider the following sentences and possible continuations:

153. a. The door isn't completely closed.
i. But it's almost closed.
ii. *It's quite open. (OK for contradiction)

b. The class isn't totally full.
i. But it nearly is.
ii. *It is very nearly empty. (OK for contradiction)

c. The car wasn't absolutely demolished.
i. But it almost was.
ii. *It's still in pretty good shape.
(OK for contradiction)

In these cases, the denial of the completed state still allows assertion of an advanced degree of the quality.

However, when the completive modifiers are used with normally non-completive predicates in a hyperbolic usage (see discussion in Section

2.11.31.), there is something more like extremity negation, e.g.:

154. a. She isn't totally crazy.
(She might even be rather clever)
b. She's not totally beautiful.
(You might even think of her as plain)

And if the predicate is one which is already extreme, the negation of a completive modifier tends to give an ironical tone--roughly equivalent to reversal negation, a form of litotes, e.g.:

155. a. That fireworks display wasn't totally magnificent.
(= rather common place)
b. She's not absolutely gorgeous. (= rather plain)

The effect is approximately the same as with exactly, which highlights the irony,[23] e.g.:

156. a. He wasn't exactly sober. (= rather drunk)
b. She's not exactly a beauty. (= a bit ugly in fact)

The approximaters like almost, nearly, practically, etc. don't take negation at all, except in the sense of contradiction, e.g.:

157. a. *The door isn't almost open.
b. *The patient isn't nearly dead.
c. *The landlady isn't practically deaf.
d. *She didn't almost kill him.

This might be explained by the fact that almost and the other approximaters are semantically negative already, although they don't behave like negatives syntactically. For example, almost doesn't condition some/any suppletion, nor does it make negative polarity items acceptable, e.g.:

158. a. *I almost bought any land.
b. *He almost budged the statue an inch.

However, it is clearly negative semantically.[24] As will be illustrated in the discussion on quite below, almost is equivalent in meaning to not quite. Consequently, it is not surprising that is doesn't show

overt negation, which would amount to double negation semantically.

Negation with quite almost defies analysis. There are many positives which have no negative counterparts at all, e.g.:

159. a. He's quite tall.
*He's not quite tall.
b. He visits us quite often.
*He doesn't visit us quite often.
c. He's quite a raconteur.
*He's not quite a raconteur.
d. The play quite delighted us.
*The play didn't quite delight us.

On the other hand, there are not quite versions which have no corresponding positives, e.g.:

160. a. Sam didn't quite make the train.
*Sam quite made the train.
b. We haven't quite decided to take the trip.
*We've quite decided to take the trip.

The dividing line seems to be on the point of perfectivity. With adjectives, adverbs and degree nouns, quite serves as a generalized intensifier, with almost as free a distribution as very. However, with verbs, as we saw in section (2.11.33), quite begins to reveal its perfective origins, meaning something like completely, and begins to have limitations associated with completive predicates, that is, with predicates which describe states which have a point at which they attain a completed state: thus to reiterate, we find sentences like:

161. a. *The clothes have been quite washed.
(cf. *... completely washed)
b. The paint quite washed out of those old jeans.
(cf. .... completely washed out ...)

162. a. *The kids have quite damaged his new car.
(cf. *... completely damaged ...)
b. The kids have quite destroyed his new car.
(cf. ... completely destroyed ...)

From this viewpoint, the distributions of grammaticality in (159) and (160) can be made sense of. Quite occurs in the positives of (159. a-c) because there are no restrictions on quite with any lexical categories except verb. In (159. d) delight is resultative and thus subject to completion (cf ... completely delighted us.). The case is somewhat more complicated in the cases of (160). While make the train and decide to take the trip are semantically completive, they cannot occur with the completive modifiers, e.g.:

163. a. *Sam completely made the train.
b. *We absolutely decided to take the trip.

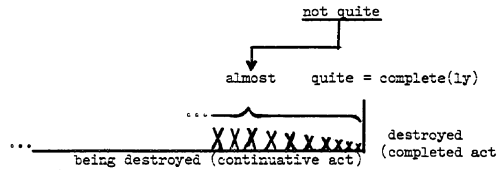
However, we might note that both of these are punctual events rather than durative events. Both are subject to completion, but the completion occurs instantaneously, as it were. Both quite and the completives are restricted to the durative and do not occur with the punctuals (Celce-Murcia, personal communication). Thus we have the failure of quite in the positive in the sentences of (160). Now, note that none of the grammatical positive sentences with quite in (159) can occur with almost, and that the ungrammatical positives in (160) are all right with almost, e.g.:

159'. a. *He's almost tall.
b. *He visits us almost often.
c. *He's almost a raconteur.
d. *The play almost delighted us.

160'. a. Sam almost made the train.
b. We've almost decided to take the trip.

This distribution of almost has already been discussed in Section 2.11.31. and 2.11.33. The distribution does provide an insight into the parallel distribution of not quite. What seems to be operating is

that the completive restriction on quite already noted with verbs, is retained in the negative with all lexical categories. Thus semantically not quite is equivalent to almost (DW, 101), (Gary, 1972, 9). This can be illustrated most easily by a diagram of the places that almost and quite occupy with respect to each other, using the completive verb destroy as the example, viz.:



Conceptually, with completive verbs, there is a period of time right before the completion which can be described by the indefinite approximater almost. The interrelatedness of almost, quite (and completely), and not quite can be demonstrated clearly by comparing them in use with a non-completive verb like damage and a completive like destroy, e.g.:

164. a. *They almost damaged the china.
(OK in performative reading)
b. *They quite damaged the china.
c. *They completely damaged the china.
d. *They didn't quite damage the china

165. a. They've almost destroyed the old church.
b. They've quite destroyed the old church.
c. They've completely destroyed the old church.
d. They haven't quite destroyed the old church.

Thus semantically, not quite, which is the negation of the completive feature of quite, overlaps the meaning area of almost.

However, this is not the full story yet. There are a number of cases where almost and not quite do not alternate; almost can occur, while not quite cannot. Consider these pairs of examples:

166. a. The land is almost barren.
b. *The land's not quite barren.

167. a. Your last serve was almost long.
(said by receiver of service)
b. *Your last serve wasn't quite long.

168. a. We almost missed the train.
b. *We didn't quite miss the train.

This kind of alignment of pairs makes clear what is happening. Not quite is goal oriented while almost has no such restriction.[25] If the attitude expressed by not quite indicates a lack of attainment of a goal, then not quite will be grammatical; otherwise, it will be unacceptable. Compare these pairs of not quite examples:

169. This is a museum and the pictures aren't supposed to be crooked;

a. *That picture isn't quite crooked.
(goal = be straight)
b. That picture isn't quite straight.

170. This is a haunted house, not a museum!

a. That picture isn't quite crooked yet!
b. *That picture isn't quite straight yet!
(goal = be crooked)

171. a. *Your first serve wasn't quite out. (goal = be in)
b. Your first serve wasn't quite in.

Some predicates of course carry their presuppositions with them and their grammaticality is determined by the users' attitudes towards the states described, e.g.:

172. a. *The scrambled eggs aren't quite hard.
(goal = be cooked but soft)
b. The ice in the tray isn't quite hard.

And predicates which may not have any intrinsic presuppositions associated with them can be given them by contexts or by the addition of goal-oriented modifiers like enough, which when negated, indicates an insufficiency, e.g.:

173. a. *That patient's not quite dead. See if you can help him.
b. That bastard's not quite dead. Shoot him again.

174. a. *That car's not quite fast.
b. That car's not quite fast enough to win.

Finally, there is one more set of facts to consider about not quite. In the instances examined so far, the negation of quite via not quite has been the negation of just the completive feature of quite, in effect a special case of extremity negation--a denial of the extreme degree, leading to the semantic overlap with almost. However, unlike the earlier instances of extremity negation, not quite does not leave open the question of any other degree below almost. This is because quite, like almost, essentially divides the modified quality into a two part scale--almost and complete-- (DW, 119) rather than a four (or more) part scale like not very, etc.

However, with evaluative predicates, not quite appears where almost cannot, and it seems to signal something more like reversal negation than extremity negation. Consider these examples:

175. a. That girl's not quite nice.
(= rather shady; cf. *almost nice)
b. He's not quite bright.
(= rather dim; cf. *almost bright)
c. His son's not quite right in the head.
(= rather crazy; cf. *almost right in the head)
d. She's not quite as pure as the new driven snow.
(= rather promiscuous; cf. *almost ...)
e. That man's not quite a gentleman.
(= rather ungentlemanlike; cf. *almost a gentleman)

What seems to be the case here is that with predicates of positive evaluation, if the quality is denied, then the failure to reach that point of completion, implies a strong lack of it. So we don't have to assume a different type of scaling for predicates of positive evaluation, but we do need to be aware that with these predicates, failure to attain the quite stage doesn't imply the approval of the almost, but in fact a stronger negation. In fact, there is a degree modifier which covers this semantic area--the negative completive hardly. Hardly can be substitude in all of the instances of (175) for not quite and provide a close paraphrase, although hardly conveys a much stronger negative sense than not quite, which is more genteel, a euphemism. And there are distributional similarities between quite and hardly in comparison with almost, e.g.:

176. a. He's quite tall. He's hardly tall! *He's almost tall.
b. She visits us quite often. She hardly visits us often.
*She visits us almost often.
c. He's quite a raconteur. He's hardly a raconteur.
*He's almost a raconteur.
d. The play quite delighted us. The play hardly
delighted us. *The play almost delighted us.

177. a. Sam almost made the train. *Sam quite made the train.
*Sam hardly made the train.
b. We've almost decided to take the trip.
??We've quite decided to take the trip.
*We've hardly decided to take the trip.
(OK for contradiction)

These last two sets of facts leads us to the rather startling conclusion that quite has two negative counterparts: not quite covers the negation of the completive feature of quite, and hardly covers the negation of the degree feature.

On the other end of the degree scale are the diminishers like a little and a bit. These two modifiers show a number of semantic and syntactic parallels. In their degree uses, they are both underlyingly complex in predication, implying excessiveness, as illustrated by sentences like:

178. a. That skirt's a bit short (to wear to church).
b. You're walking a little fast (for me to keep up).

And this excessiveness implies negation in the complement, so that, for example, there is some/any suppletion and negative polarity conditioning in their complements:

179. a. He's a bit (a little) tight to drink any more.
b. She's a little (a bit) small to budge that statue.

And because of this they are often found in negatively-tinged contexts (DW, 50), e.g.:

180. He's been a bit (a little) inconsiderate.
(cf. *... considerate).
The new man has gotten a little (a bit) discouraged.
(cf. *... encouraged)

Bolinger detects a slight difference in their ability to modify adverbs, (DW, 50), e.g.:

181. You're walking a bit (?a little) slowly to get there on time.

although I don't detect any difference here. However, for the most part they are very much alike in distribution and meaning in positive sentences. In negative sentences many differences become apparent. First of all, the negative of a bit points to the extreme part of the opposite end of the scale. Thus a sentence like:

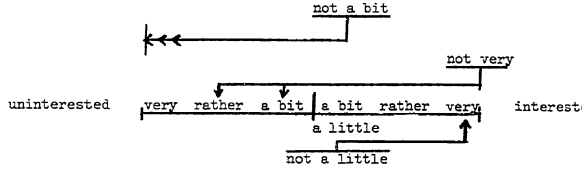
182. He's not a bit interested.

means that the person is very uninterested. In this respect not a bit

is a stronger version of not very, and provides a strong version of reversal negation. However, the negative of a little moves in the exact opposite direction, and a sentence like:

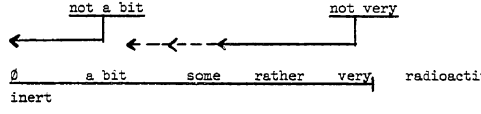
183. He's not a little interested.

means that the person is very interested, a case of litotes. The negative meanings of these two minimizers can be contrasted and both compared with not very like this:



If a scaled item starts at zero rather than being an opposite quality, not a bit asserts zero, while not very points only to reverse part of the scale, e.g.:

184. That sample isn't {very / a bit} radioactive yet.



With verbs, a bit is a negative polarity item, and a little doesn't occur at all in the negative with verbs, e.g.:

185. a. He doesn't mind {a bit / *a little}. (cf. *He minds a bit)

b. Juliet doesn't love Romeo {a bit / *a little}.

And finally, as we look at negation with the compromisers, we find that they don't take negation except in the contradiction sense, e.g.:

186. a. *He isn't sort of lazy.
b. *She isn't rather pretty.
c. *The patient isn't kind of well.

The reason for this failure to take negation seems obvious. The compromisers, since they occupy the middle semantic field and are sort of wishy-washy, don't have a semantic leg to stand on to act as a fulcrum for negation. Negation of the scalar values of the compromisers would be unpredictable; it might be either upwards or downwards in value. Thus it appears not to occur at all.

2.13. Scalar Valence in Degree Modifiers

It will be recalled that we briefly introduced the notion of the directionality of scalar predicates in Chapter 1. There it was pointed out that asserted scalar values can be suspended only for higher values and not for lower values; that is, scalar predicates have an upward direction of scaling. If we think in terms of scalar valences, we can say that a scalar predicate can be suspended only by another predicate having a higher valence. Thus to illustrate using numbers, we find examples like these (repeated from Chapter 1):

187. John is 100 years old, if he's not $\left\{\begin{matrix} *90 \\ 105 \end{matrix}\right\}$.

If we apply this principle of suspendability to the degree modifiers, we find that we can establish a hierarchy of suspendability which gives us four clear positive valence values and one negative value. Thus we find the following ordering of modificational types given below, ranging

from highest to lowest, based on the ability for, and direction of, suspendability (the example sentences given for illustration are mostly given with the positive <u>even</u> rather than the negative <u>if not</u> because several of the degree modifiers have restrictions with negatives):

<u>Hierarchy of Suspendability</u>

IV. completives: completely, absolutely, totally...

III. approximaters and boosters: almost, nearly,...; very, extremely,...; quite, ...

II. compromisers: fairly, rather, sort of, ...

I. diminishers: a bit, a little, ...

Ø. minimizers: little, ...

The types of (III) suspend only for (IV) e.g.:

188. He's $\left\{\begin{array}{l}\text{almost}\\ \text{nearly}\\ \text{very}\end{array}\right\}$ crazy, $\left\{\begin{array}{l}\text{if not completely}\\ \text{*if not } \left\{\begin{array}{l}\text{very}\\ \text{fairly}\end{array}\right\}\end{array}\right\}$ crazy

The approximaters and boosters of (III) are of equal valence; they suspend only for (IV) and not for each other, e.g.:

189. a. He's almost crazy; *he may even be $\left\{\begin{array}{l}\text{extremely}\\ \text{very}\end{array}\right\}$ crazy.

b. He's very crazy; *he may even be $\left\{\begin{array}{l}\text{almost}\\ \text{nearly}\end{array}\right\}$ crazy

The approximaters, while they can be suspended by (IV), cannot themselves suspend types lower in valence, although the boosters can, e.g.:

190. Now he's feeling $\left\{\begin{array}{l}\text{fairly}\\ \text{rather}\\ \text{a bit}\end{array}\right\}$ well;

he may even be feeling $\left\{\begin{array}{l}\text{extremely}\\ \text{*almost}\end{array}\right\}$ well.

This has to do with the completive feature of the approximaters. When they are used, they divide the scale into two parts only; non-complete and complete. The other degree modifiers operate within an implied 4 part scale, and thus any one of them which was not of (IV) would automatically fall within the same semantic range as the approximaters, i.e. non-complete.

The compromisers of valence (II) suspend for (IV) and (III), but nothing lower, e.g.:

191. a. That patient seems $\left\{\begin{matrix}\text{fairly}\\ \text{rather}\end{matrix}\right\}$ sick;

he may even be $\left\{\begin{matrix}\text{extremely}\\ \text{*a little}\end{matrix}\right\}$ sick.

b. She's $\left\{\begin{matrix}\text{sort of}\\ \text{kind of}\end{matrix}\right\}$ cute,

she might even be described as $\left\{\begin{matrix}\text{very}\\ \text{*a little}\end{matrix}\right\}$ cute.

The diminishers of valence (I) suspend with (II) and above, e.g.:

192. That player seems $\left\{\begin{matrix}\text{a little}\\ \text{a bit}\end{matrix}\right\}$ worried;

he may even be $\left\{\begin{matrix}\text{very}\\ \text{fairly}\\ \text{*little}\end{matrix}\right\}$ worried.

And finally, the minimizer <u>little</u>, like a negative, suspends downwards toward zero, rather than upwards toward <u>completely</u>, e.g.:

193. That formula is little understood;

it may even be $\left\{\begin{matrix}\text{not understood at all. } (= \emptyset)\\ \text{*}\left\{\begin{matrix}\text{completely}\\ \text{extremely well}\\ \text{rather well}\\ \text{a little}\end{matrix}\right\}\text{ understood.}\end{matrix}\right\}$

This hierarchy then gives some sense of coherence to many of the restrictions and distributions which we have seen up to now. They illustrate that Bolinger's 4 part semantic function division (booster, compromiser, diminisher, and minimizer) has a good bit of systematic validity. And with the addition of the completives with the highest valence in the hierarchy, we now have a systematic distribution of degree modification values ranging through the four positive values and the one negative value.

The hierarchy also provides a framework for our previous discussion of negation with degree modifiers. Keeping in mind the complexities we saw earlier in the interaction of negation with various modifiers, and recognizing that there will be a number of exceptions, we can make the following generalizations. Negation of valence (IV) degree modifiers, the completives, will normally yield extremity negation, denying the completive or absolute aspect of the modifier. Negation of valence (III) modifiers, the boosters, will give reversal negation. Negation of valence (I) modifiers, the diminishers, except for the negative polarity a bit, gives reversal negation, but in an upwards direction. Thus a sentence like: He's not a little interested in this project means He's very interested. Thus negation of valence (I) is a mirror image of negation of valence (III), the boosters. And finally the compromisers of valence (II) don't normally accept negation at all, except for contradiction. All of this discussion of the interaction of negation with scalar valences will loom larger and be somewhat easier to see when we discuss negation with quantifiers in a later section.

The valences also lend some semblance of order to some of the restrictions we have observed with respect to degree modifiers modifying other degree modifiers. Taking into account all of the other cooccurrence and collocational restrictions noted, there is a pattern revealed. The compromisers of valence II may modify in both direction-- upwards and downwards on the valence scale, e.g.:

194. He's {fairly / rather} { completely convinced (IV) / {extremely / exceedingly} disturbed (III) }

195. She's rather { {a bit / a little} concerned (I) / little worried (Ø) }

And as we noted earlier, the compromisers can't modify each other, and none of the other modifiers can modify them.

Modifiers of valence (III), the approximaters and boosters, can also modify in either direction (except for modifying valence II, as already noted, e.g.:

196. a. He's {almost / really} {completely / absolutely} crazy. (IV)

b. That's {almost / really} {a bit / a little} flashy for me. (I)

c. He's {very / really} little nearer his goal now. (Ø)

And finally neither (IV), (I) or (Ø) valence degree modifiers can modify any of the others. The overall generalization is that the middle valence modifiers, i.e. (III) and (II), can modify in both directions, but neither of the extreme ends of the valency groups (i.e., IV, I, and Ø) can modify the other degree modifiers.

When we turn to the other side of the EXTENT coin, quantity, we will find very exact parallels, parallels which would not have been apparent without this analysis of valency exhibited in degree modification.

2.20. Simple Quantity

Quantification has received an inordinate amount of attention in recent work in linguistics, largely under the impetus of trying to account for quantified relations under the assumptions of a transformational grammar, notably the behavior of universal and existential quantifiers when they are involved in transformations which may effect their surface positions and thereby the nominals which may fall inside of their scope.

This investigation will have little to say about such questions as these. It will mainly be concerned with pursuing the functional relations of quantifiers as they modify various quantified elements. If it should turn out that these line of inquiry shed light on these questions, it will be considered a fortuitous bonus--not an intended outcome.

This investigation will limit itself--not entirely arbitrarily--to quantifiers *per se* rather than trying to look at the complete range of pre-nominal structures often associated with quantification, such as measures, collectives, etc. At least part of this limitation of topic results from part of the thesis itself--that there are significant parallels between *degree* and *quantity*. And there are clear parallels between degree modification and quantification, including lexical

overlap, while any parallels between degree and various types of measure and collective structures seems more tenuous.

A rather larger than usual number of quantifiers will be examined, again in order to fully explore relationships between degree and quantity, and as should be obvious by now even, an enormous number of quantifiers also function as degree modifiers, although we haven't drawn attention to this yet. However, the actual exploration of quantification is somewhat less expansive than that of the earlier section on degree. Many of the notions that had to be discussed in detail there can now be referred to without much further explanation. And, while quantifiers pose innumerable problems for linguistic analysis, they don't seem to exhibit nearly the richness of cooccurrence restrictions and historic vestige as seem to have become attached to degree modifiers. This is no doubt a function of wider lexical distribution of the degree modifiers (i.e. modification of adjectives, adverbs, verbs and predicative nominals) than the quantifiers, and perhaps also the always present creative urge to freshen, refurbish, hyperbolize, or understate the means by which the language expresses degree — a tendency not so much in evidence with quantity.

2.21. Nominal Quantity

Nominal quantifiers don't show anything like the same diversity and complexity of cooccurrence and functional restrictions that were seen in the degree modifiers. With the exception of completive predicates, modification for degree is an open-ended process. To say

any of the following is to assert (perhaps increasingly) high degrees of the quality on a conceptually open-ended scale:

197. a. She's right pretty.
b. She's very pretty.
c. She's an absolute beauty.
d. She's pretty as a Budweiser lake hanging over the back of a bar.
e. She was so pretty that all of the flowers wilted as soon as she walked into the room.
and so on ...

The limits of such degree modification are determined by the imagination of the speaker (and the credulity of the listener!) However, with quantifiers, the exact opposite holds. Because of the potential enumeration of all quantification the exact opposite holds with quantifiers: quantity always describes potentially completive sets. Any of the following, while not describing a complete set, can be conceived as complete, as indicated by their ability to take all or its equivalents as a quantifier:

198. a. Several people showed up.
b. Many cars have been recalled.
c. Lots of money must have changed hands.
and so on ...

Even real numbers, while potentially infinite can be made into complete sets by the use of the universal quantifier, and can be closed in a way that relative predicates cannot be.

The only significant cooccurrence restriction with quantifiers has to do with the count/non-count distinction, e.g. many/much, few/little, a/some, etc. And of course many quantifiers such as plenty, a lot of, lots of, all, etc. don't even have this restriction.

It is useful before going on in the discussion of quantity to briefly characterize it and to note differences between quantification

per se and counting, another closely related and lexically overlapping type of *quantity*.[26] Counting describes, either specifically or non-specifically, the size of the set, while quantification describes, either specifically or non-specifically, the proportion of the set. Compare these sentences, the first of which illustrates counting and the second quantification:

199. The Chairman's $\left\{\begin{array}{l}\text{three}\\ \text{many}\\ \text{numerous}\\ \quad\emptyset\\ \ldots\end{array}\right\}$ functions are written here.

200. $\left\{\begin{array}{l}\left\{\begin{array}{l}\text{Three}\\ \text{Many}\\ \text{Numerous}\\ \text{Some}\\ \text{A lot}\\ \text{All}\\ \ldots\end{array}\right\}\cdot\text{of}\\ \quad\emptyset\end{array}\right\}$ the Chairman's functions are written here.

In sentence (199) each counter gives the exact number of the Chairman's functions. In sentence (200) the quantifiers state a proportion of the total number of the Chairman's functions. In each case they mean something like *X number of the total number* of the Chairman's functions. The universal quantifier *all* is semantically redundant in the absence of any other quantifier, making specific the already semantically present *total* of the Chairman's functions. Similarly, the lack of an overt quantifier, i.e., $\emptyset$, leaves open only the universal *total* (*all*) set marker.

Both quantification and counting may occur together, e.g.:

201. The Chairman spoke to *fifty* of his *many* employees.

202. The Chairman spoke to *many* of his *fifty* employees.

However, the counters can be left out without effecting the truth value of the sentences, while the quantification cannot. Thus (201.a) and (202.a) mean the same thing as (201) and (202) respectively, but (201.b) and (202.b) do not:

201. a. The Chairman spoke to fifty of his employees.
     b. The Chairman spoke to his many employees.

202. a. The Chairman spoke to many of his employees.
     b. The Chairman spoke to his fifty employees.

We will be concerned mainly with quantification here.

We have already discussed scalar values of numbers in Chapter 1, by way of illustrating scalarity and directionality. And we discussed scalar values of degree modifiers in Section 2.13 of this chapter. Not surprisingly, non-specific quantifiers (and counters as far as that goes) exhibit almost exact parallels with degree modifiers in types of semantic classifications and ranking of scalar values (the numbers used here to mark the levels of the hierarchy of suspendability are the same as those given in the discussion of degree modifiers in Section 2.13.):

<u>Valence</u>:

IV	completives	all, every, both, all X,...
III	approximaters and other boosters	almost / nearly / ... , all / every / ... , most many/much, plenty of, a lot of, lots of, gobs of, oodles of, ... a good deal of, a large amount of ..
II	compromisers	some, several, ...
I	diminishers	some, a few, a little, a bit, ...
Ø	minimizers	few, little, ...

In general we find the same suspension possibilities that we saw with the degree modifiers. Valence (III) suspends only for (IV), e.g.:

203. a. Almost all, $\left\{\begin{array}{l}\text{if not all}\\ \text{*if not } \left\{\begin{array}{l}\text{several}\\ \text{a few}\end{array}\right.\end{array}\right\}$, people showed up for the party.

b. I met $\left\{\begin{array}{l}\text{many}\\ \text{a lot}\\ \text{plenty}\end{array}\right\}$ of the people, if not $\left\{\begin{array}{l}\text{all}\\ \text{* } \left\{\begin{array}{l}\text{several}\\ \text{a few}\end{array}\right.\end{array}\right\}$.

With the degree modifiers, there was no valence difference between approximaters and boosters; the approximaters could not suspend the boosters. However, with the quantifiers, there is a difference; the approximater <u>most</u>, although not <u>almost all</u>, can suspend the other boosters, e.g.:

204. $\left\{\begin{array}{l}\text{Many}\\ \text{A lot of}\\ \text{Plenty of}\end{array}\right\}$ people came, if not $\left\{\begin{array}{l}\left\{\begin{array}{l}\text{all}\\ \text{most}\end{array}\right.\\ \text{* } \left\{\begin{array}{l}\text{some}\\ \text{several}\end{array}\right.\end{array}\right\}$

This is due to the fact that <u>almost</u> has an incorporated negative, as was discussed earlier under degree; this negation factor puts <u>almost</u> in the same semantic field as the other boosters. And there did not seem to be a positive approximater with the degree modifiers, while there is with the quantifiers--<u>most</u>. This difference between <u>most</u> and the other boosters is also revealed in the fact that <u>most</u> implies <u>more than 50%</u>, while the other boosters imply <u>less than 50%</u> (Horn, 1972), as shown by the possible and impossible additive combinations of the

following (subscripted groups should be paired by the same subscript):

205. $\left\{\begin{array}{l}\langle \text{*Most} \rangle_a \\ \left\langle\begin{array}{l}\text{Many}\\ \text{Plenty}\\ \text{A lot}\\ \ldots\end{array}\right\rangle_b\end{array}\right\}$ of the people were there, but $\left\{\begin{array}{l}\langle \text{most} \rangle_a \\ \left\langle\begin{array}{l}\text{many}\\ \text{plenty}\\ \text{a lot}\\ \ldots\end{array}\right\rangle_b\end{array}\right\}$ weren't.

Valence (II) suspends for (IV) and (III), but not for anything lower, e.g.:

206. Several people showed up, if not $\left\{\begin{array}{l}\left\{\begin{array}{l}\text{all}\\ \text{most}\\ \text{many}\end{array}\right\} \\ \text{*a few}\end{array}\right\}$.

It should be noted that <u>some</u> is listed in both (II) and (I) because it doesn't discriminate either, while <u>several</u> does. This is probably because of its overriding existential sense.

Valence (I) suspends for all higher groups, but no lower, e.g.:

207. Agnew took <u>a few</u> of the bribes offered him;

he may have even taken $\left\{\begin{array}{l}\left\{\begin{array}{l}\text{all}\\ \text{most}\\ \text{many}\\ \text{several}\end{array}\right\} \\ \text{*some}\end{array}\right\}$ of them.

And finally, the minimizers of valence (∅) show their negative status by suspending downwards toward ∅ rather than upwards, e.g.:

208. Few of the people came, if $\left\{\begin{array}{l}\text{*}\left\{\begin{array}{l}\text{all}\\ \text{many}\\ \text{several}\end{array}\right\} \\ \text{any } (= \emptyset)\end{array}\right\}$.

2.22. Temporal Quantity

Temporal quantifiers divide naturally into two basic classes which parallel the count/non-count distinction in nominal quantity. The count is paralleled by frequency and non-count by duration. This has already been discussed briefly in Chapter 1. A few temporal quantifiers may be used for either frequency or duration. In order to illustrate the differences in the two and to test which temporals are which, it is necessary to stringently limit the potential time scope of the predicate used so the differences can be seen easily. Duratives form the smaller class, and they can be illustrated in the frame of a sentence with perfective aspect and a stative predicate--a combination which will assure that short of quite fanciful interpretations the quantity of time must be taken as durative, since neither perfectives nor statives lend themselves easily to repetition and thus to frequency. Sentence (209) below will serve as the diagnostic for duratives. If a temporal can occur in either the pre-participial position (a) or the verb phrase final position (b), it can be a durative quantifier. It is more difficult to isolate the frequency temporals because they can always occur within the time frame of a durative. However by providing an overt durative like since 1965 and then singularizing the action sufficiently we can provide a diagnostic for frequency. Sentence (210) can thus serve as such a diagnostic. If a temporal can occur in either position (a) or (b), then it can be taken as a frequency quantifier. Question forms of the two sentences can also be used as diagnostics, both as to what can occur in the questions and what can be used as an

appropriate answer to the questions.

209. Sam has _(a)_ been that tall _(b)_.

209'. How long / *often has Sam been that tall?
...

210. Johny Cash has _(a)_ sung "Folsom Prison Blues" at this concert _(b)_ since 1965.

210'. How often / *long has Johny Cash sung "Folsom Prison Blues" this concert since 1965?
...

Using these as diagnostic devices for determining durative and frequency temporals, we get the following two partial lists:

durative:	frequency:
always	always
all X (e.g., all his life)	every X (e.g., every year)
a long time	each X
for some time	invariably
...	usually
since 1970	mostly
for 6 years	often
...	frequently
	occasionally
	now and again
	sometimes
	seldom
	rarely
	...
	a lot
	3 times
	...

There are at least two other duratives--continuously and briefly--which will not occur in the frame of (209) because they can't occur with statives, for obvious reasons. Both of them are duratives, but allow a change of state since they signal restricted time spans (briefly) or duration with a possible end-point (continuously). However, in somewhat less stringent times frames than (209), it is clear that they

are duratives. e.g.:

211. Aaron Burr lived there $\left\{\begin{array}{l}\text{briefly in 1810.}\\ \text{continuously during 1810.}^{27}\end{array}\right\}$

Neither can occur in the frequency diagnostic (210).

The temporal quantifiers can be assigned valency values just as nominal quantifiers were:

				duration	**frequency**
IV.	completives			always all X (e.g. year) continuously continually	always every X invariably continually ...
III.	approximaters and other boosters	almost / nearly / ...	always	most of the time a long time ...	usually generally frequently often a lot/lots
II.	compromisers			a while	sometimes now and again now and then occasionally
I.	diminishers			briefly	?
Ø.	minimizers	hardly / scarcely	a second		seldom rarely hardly / scarcely (ever)

And in general they show the same kind of suspendability that we have seen in other such quantificational hierarchies. Valency (III) suspends

only for (IV), e.g.:

212. Johny Cash almost always sings "I walk the Line",

if not $\left\{ \begin{array}{l} \left\{ \begin{array}{l} \text{always} \\ \text{invariably} \end{array} \right\} \\ \\ *\left\{ \begin{array}{l} \text{usually} \\ \text{sometimes} \end{array} \right\} \end{array} \right\}$

And as with the nominal quantifiers, the analytic <u>most</u> can suspend the other boosters, e.g.:

213. $\left\{ \begin{array}{l} \text{Frequently} \\ \text{Usually} \end{array} \right\}$ he looks like death warmed over, if not most of the time.

Valency (II) can be suspended by (III), but not by (I), e.g.:

214. He's been know to have a snort $\left\{ \begin{array}{l} \text{sometimes} \\ \text{occasionally} \end{array} \right\}$,

if not $\left\{ \begin{array}{l} \text{frequently} \\ \text{often} \end{array} \right\}$.

215. They stopped by here <u>a while</u>, if not $\left\{ \begin{array}{l} \text{a long time} \\ *\text{briefly} \end{array} \right\}$.

Valency (I) can be suspended by (II), e.g.:

216. I will stop by briefly; maybe even for a while.

And finally, the minimizers of valency (Ø) suspend downwards toward Ø, e.g.:

217. New Yorkers $\left\{ \begin{array}{l} \text{seldom} \\ \text{hardly ever} \end{array} \right\}$ visit the Empire State Building,

if $\left\{ \begin{array}{l} \text{ever} \\ \text{at all} \end{array} \right\}$. (= Ø)

2.23. Spatial Quantity

The number of lexical spatial quantifiers is relatively impoverished. Most spatial quantification is indicated analytically by the use of nominal quantifiers plus nouns like <u>place</u>, <u>space</u>, <u>area</u>, etc.

However, for the purposes of completeness, they are also listed here, mainly to show that they too fall into the same kind of hierarchy. Here is a list of the most common spatial quantifiers in the valency hierarchy we've been using:

IV.	completive	everywhere, everyplace, ubiquitous(ly) — all of the space
III.	approximaters / other boosters	almost {everywhere / everyplace}; most places; {many / lots of} places; {much / lots of} space
II.	compromisers	someplace, some space; here and there; one place and another
I.	diminishers	a few places; a little space
Ø.	minimizers	few places; little space

Not unexpectedly they show the same kinds of suspendability that we have seen with all of the other quantifiers. It is not necessary to give further examples.

2.24. Negation with Quantity

There are now enough parallels established between nominal, temporal and spatial <u>quantity</u> to be able to group them all together for the purposes of studying their behavior under negation.

The different types of negation which we saw in Section 2.12. under <u>degree</u> all have their parallels in the negation of <u>quantity</u>.

However, probably due to the lesser degree of complexity of cooccurrence with quantifiers, there don't seem to be as many vagaries in the negation of quantity as there were in degree, for example, the complexity revealed in the negation of quite.

Negation of the completive quantity markers, i.e., the universal positive quantifiers--is parallel to the negation of the completive degree modifiers. Thus not all/always/everywhere as used in sentences such as:

218. a. Harry didn't buy all the provisions.
b. Caruso didn't always sing "La Donna e Mobile."
c. I didn't look everywhere.

is extremity negation; what is denied is the completive (or absolute) feature, leaving open any other possible amount below all/always/everywhere, although with a fairly strong sense of the amount being relatively high rather than low, due to pragmatic considerations. Thus any of these might be possible continuations of (218):

219. a. Harry didn't buy all of the provisions;

i. I bought most of them.
ii. I bought at least half of them.
iii. I bought the beer.

b. Caruso didn't always sing "La Donna e Mobile."

i. One year he substituted "Old Man River".
ii. About half of the time he dropped it from the program.
iii. He only sang it for the first year or so.

c. I didn't look everywhere,

i. but I did check most of the places.
ii. but I did check half of the beer joints.
iii. but I did look in a few places.

With the approximaters, the almost forms cannot be negated except in the contradiction sense, just as was true with the degree approximaters. The approximater most can be negated; however, it acts like many/much and the other boosters, i.e. as reversal negation rather than extremity negation. So, for example, including most in with the other boosters, there is this kind of meaning under negation:

220. a. I didn't receive most of the information.
(= rather little)
b. He doesn't have many acres. (= rather few)
c. He doesn't have much money. (= rather little)
d. They don't usually stay at this hotel.
(= rather seldom)
e. We weren't there a long time. (= rather a short time)

This reversal negation with the quantifiers exactly parallels the intensifier negation in degree. Among the boosters, plenty seems to be anomalous. It doesn't take negation except in contradiction, e.g.:

221. a. *They didn't have plenty of money.
b. *We didn't allow plenty of time to catch the train.

Enough would normally be the quantifier used in such places. Plenty seems to be a positive polarity item.

As with the compromisers in degree modification, the quantity compromisers of valence (II) don't easily accept negation either, e.g.:

222. a. *I didn't see several of his people. (OK with the reading, There are several of his people I didn't see.)
b. *I didn't use to stay at that hotel now and again.
*He didn't occasionally sing "Rocky Mountain High."
c. *I didn't live here and there.

And finally, again as we saw with degree, negation of the diminishers pushes their values upwards on the scale rather than

downwards. e.g.:

223. a. Not a few people are interested in that project.
(= quite a lot)
b. We spent not a little time revising that edition.
(= quite a lot of time)
c. Not briefly did I discourse in learned tones.
(= quite a long time)

And not unexpectedly, negation of a bit used as a quantifier indicates absolute negation, just as it did with degree:

224. a. I didn't have a bit of money. (= not any)
b. He doesn't have a bit of time for that.
(= not any time)

Thus, negation with quantity parallels almost exactly negation with degree. We find that the quantifiers exhibit the same kinds of negation (i.e., extremity or reversal) depending on the functional type and valency of the quantifier, exactly parallel to that of negation with degree. And we find the same kinds of restrictions on what can be negated; the valence (II) types do not allow negation except for contradiction, just as their degree counterparts--the compromisers--did not. These parallels would not have been evident if we had not been able to show that both degree and quantity share the same functional types and valency values.

2.3. Conclusion and Transition

In this chapter we have examined several aspects of simple quantity and degree. We saw some of the enormous complexity of cooccurrence restrictions governing degree modification, and noted the much less complex cooccurrence behavior of the quantifiers. We can only speculate as to why there is this discrepancy in complexity. It may be partly

due to the fact that degree has wider distribution in its modificational patterns, being able to modify all of the other lexical classes. Quantifiers, on the other hand, are much more tightly tied to the nominal system. However, the explanation is probably best sought in the functional fact that quantity can be tied directly to the empirical world; quantified things can be counted, even if they are not. Modification for degree, on the other hand, is much more ephemeral, and expresses states of mind rather than empirically verifiable statements. Again, for the moment, this is only speculation. Whether the question can even be answered is still an open question.

The remainder of this chapter has been devoted to examining degree and quantity from the viewpoint of the valency hierarchy first explored with degree in Section 2.13. We saw that there were very exact parallels in degree and quantity. They both exhibited four positive valence types and one negative one. And they both showed similar interactions with negation. All of these parallels support the original thesis: degree and quantity are related to one another in systematic ways. What we have seen here is that the relationships are even more consistent and pervasive than we might have previously imagined. These facts, combined with the explorations in Chapter One, point to the necessity of a unified account of degree and quantity. I have proposed to capture this unity with the category EXTENT. The remainder of this work will offer further support for such a description.

FOOTNOTES FOR CHAPTER TWO

[1] For example Jackendoff (1972) uses the behavior of a limited number of degree adverbs in providing evidence for his analysis of negation (344 ff.). Aside from the oversimplicity of the analysis, he even uses examples to make points which would fail to offer the support he wishes to make if the analysis were more complete. For example, Jackendoff claims that a sentence cannot have two degree adverbs in the auxiliary and illustrates this by this sentence:

i. ?* The attempt $\left\{\begin{matrix}\text{scarcely}\\ \text{almost}\end{matrix}\right\}$ could have $\left\{\begin{matrix}\text{scarcely}\\ \text{nearly}\\ \text{almost}\end{matrix}\right\}$ succeeded. (346)

However, the ungrammaticality here is not the result of <u>two</u> degree adverbs occuring but rather of the particular adverbs used. As we will see later in this chapter, with certain limited exceptions, adverbs of the same type cannot occur together, which is the case in (i). However, certain combinations of degree adverbs can easily occur provided their linear crder is correct, e.g.:

ii. The attempt <u>scarcely</u> could have <u>completely</u> succeeded without your help.
iii. The attempt <u>scarcely</u> could have <u>totally</u> destroyed the project without their collusion.

Postal (1968) makes certain claims about degree modification of passive participles which turn out to very questionable. These are discussed at length in Footnote 16 in this Chapter.

Similarly, Bresnan (1973) postulates a particular analysis of comparative constructions based at least partly on an erroneous analysis of the modificational structure of combinations of EXTENT modifiers. This is discussed at length in Chapter 4, Section 4.30.

[2] Various other terms have been used for this ability to be modified for degree. Probably the best alternative is <u>gradable</u>. See for example, Sapir (1944/1949), Lyons (1968, 10.4.3) and Quirk and Greenbaum (1973, 124). Another alternative is <u>scalar</u>. However, since the corresponding <u>degree adverb</u> is well established as the name of the modifier for <u>degree</u>, I prefer to follow Bolinger's use.

[3] Much of the following draws on Bolinger's extensive discussion of the uses and restrictions on degree modifiers modifying degree words, especially (DW, chapter 8 and 13). For purposes of brevity, what is given here is greatly simplified. Furthermore, it is not totally parallel, since I am really adding one level of classification. Bolinger

talks about the relatively lexicalized ('grammaticized' for him) and the relatively unlexicalized. I've essentially divided his latter class into a more and less unlexicalized division, for the purpose of drawing attention to the differences between degree modifiers like enormously and disastrously, which retain much of their lexical meanings with those like perfectly and terribly which don't. There is, however, no substantive disagreement indended by the difference in classification.

[4] See the Appendix for some of this history.

[5] (DW, 18); Stoffel (1901, 28 ff); OED, Vol. 12, p. 151.

[6] Bolinger doesn't use this example. He uses a sentence like It has been rather bothering me to make the point. My particular sentence (l.d.) may be acceptable only in British usage. In fact, this particular sentence has been attributed to a well-known actor, who while having been emerged in a tank of water while re-shooting a sea scene several times, was queried by the director if he and the other men in the scene were getting tired. This actor is reported to have replied with (l.d.).

[7] Even here it is necessary to emphasize that this freedom is only relatively true. Even the most highly lexicalized forms like very and quite may have slightly different meanings when they occur in the same frame, and different distribution, even when modifying the same part of speech. For example, quite and very differ somewhat in a sentence like:

i. It is (quite/very) cold this morning.

According to Bolinger (DW, 105) and Stoffel, quite connotes unexpectedness, while very simply asserts the statement.

When modifying verbs, quite and very even show different distributions, and it is possible for quite even to appear to change meanings in certain combinations. So, for example in (ii) very and quite seem more or less paraphrases, perhaps with the distinction noted in (i), but in (iii), very cannot occur even with much, and quite now seems to mean something much more like completely than very, e.g.:

ii. They quite/very much like their new apartment.
iii. The vandals quite destroyed the temple (*very much).

This is discussed in much more detail below, particularly in Section 2.12. concerning negation.

[8] Most of this taxonomy and following discussion is based on Gary (1972).

[9] Bolinger follows Kirchner (1955) in calling these restrictives, (DW, 280).

[10] Quite is acceptable with some measure phrases in British usage, particularly with temporals, e.g.:

i. He hung round the Anglo-Indian widow quite ten years.
(-Agatha Christie)

[11] This restriction applies only to the degree modifier sense and not to the sense where these may be taken as assertions of truthfulness, e.g.:

i. Yes sir, that bridge is sure (certainly) 8 feet wide, just like you said.

However, when this sense is used, the modifier is much more likely to be put before the copula, e.g.:

ii. That bridge sure is 8 feet wide, just like you said.

[12] I am endebted to Bolinger (both DW and 1975) for the general use of INC as a syntactic/semantic criterion when examining sentences where assertions and presuppositions are concerned, although he doesn't use it in this particular context. Huang (1971, 51-57) notes the interrogative criterion for sentence adverbs themselves, but does not carry it over into the use of degree adverbs derived from sentence adverbs.

[13] See Bolinger (DW, Chapter 9) for a discussion of the wide variety of relevant verb types.

[14] There will be some cases of other acceptable uses here, especially manner and sentence adverbials with remarkably.

[15] I would like to thank Celce-Murcia (personal communication) for pointing me in the direction of this explanation.

[16] Postal (1968, 38) claims that sentences like:

i. I was very surprised by Harry.

are actually ungrammatical, since very cannot occur with true passives. His reasoning is somewhat circular and also problematic. According to this the only grammatical form of such a sentence would be something like:

ii. I was very surprised at Harry.

Postal claims that sentences like (iii) and (iv) are not paraphrases.

iii. I was surprised at Harry.
iv. I was surprised by Harry.

(iii) describes a state and (iv) an event. And correlated with this, according to Postal, is the fact that the degree adverb very can occur only with the adjectival form of what he calls psychological predicates, viz.;

v. a. I was very surprised at that.
b. *I was very surpised by that.

One can certainly accept Postal's argument that (iii) and (iv) are not paraphrases and that (iii) is somehow different from (iv) without accepting his argument that degree adverbs like very cannot modify a true passive.

First of all it is not clear that (v. b) should be marked ungrammatical. Any sense of judgement becomes even shadier if we supply appropriate states and events for his psychological predicates and observe the passive. Consider:

vi. a. John's behavior surprised me.
b. I was very surprised at John's behavior.

vii. a. John's shout surprised me.
b. I was very surprised by John's shout.

According to Postal (vii. b) should be ungrammatical; it seems flawless to me. Furthermore, Postal gives the following pairs to illustrate a bonafide passive:

viii. a. *I was mystified at Harry.
b. I was mystified by Harry.

I agree with him completely on assignment of grammaticality to these two sentences. For Postal (ix) below should be ungrammatical since it has very modifying the passive verb; yet, it seems flawless to me:

ix. I was very mystified by Harry.

It is entirely possible that we have an honest disagreement about data acceptability. However, since Postal admits of no such potential variation in usage, it seems to me that he is being unnecessarily dogmatic in his argument; I think he might well even investigate his own sense of grammaticality in a little more depth. It seems clear to me from the discussion in the body of the paper that the verbs which in my dialect allow degree modification of a passive verb are of a highly restricted set. As the following discussion in the body of the paper makes clear, the verbs which accept intensifiers in the passive in my

speech are all resultative in some sense--that is, the verb describes a resultant mental state. Such usage is not very far from being adjectival in nature anyway.

[17] See, for example, McCawley (1968) and Morgan (1970).

[18] Bolinger notes the interplay of completiveness and perfective aspect in several places--in particular in discussing the passive. See especially (DW, 34-36, 199-205). The application of the criterion to the analysis of almost is mine.

[19] See for example, Givon (1975) for a fuller discussion of pragmatic considerations in the analysis of negation.

[20] We will be using several scale diagrams for illustration and it might prevent confusion to point out several type of scale will have to be used. Sentence (146) illustrates a scaling from Ø to a relative value. Some qualities, for example, intelligence, height, beauty, etc. are never scaled from Ø since it is assumed that the things these predicates describe will always have some of the quality, even if it is stated as an opposite, e.g. beautiful--ugly, smart--dumb, etc. When they are denied completely the result is hyperbole as in a sentence like: He hasn't got a brain in his head. And the hyperbole is given away by the intonation. A non-hyperbolic version of such a sentence would have a rise--fall on head, but the hyperbole has a rise on brain and a fall on head.

[21] The following discussion of the not very type and the diagrammatic presentation owe much to Bolinger, especially (DW, Chapter 5).

[22] This observation about understatement is due to Celce-Murcia (personal communication).

[23] Or as Bolinger puts it, "makes the hyperbole explicit." (DW, 117).

[24] A curious anomaly occurs in comparing almost with barely. As shown in the body of the paper here, almost is semantically a negative, but syntactically a positive. However, barely is syntactically a negative: it conditions some/any suppletion and occurs with negative polarity items, e.g.:

i. I barely bought any (*some) clothes at all.
ii. He barely budged an inch the whole time we were there.

but semantically it is a positive. It occurs on the other side of the completive dividing line. To say, I barely made the train is to say that I did in fact make it, although by a narrow margin. Almost and barely are mirror images of one another, with almost on the negative

side of the line looking forwards and barely on the positive side looking backwards. It is worth noting that neither almost or barely allows negation except for contradiction, e.g.:

iii. a. *He isn't barely/almost well.
b. *Your shot wasn't almost/barely in.

25 Bolinger (DW, 119, fn.3) seems to attribute the differences revealed about varying acceptability of not quite as a confusion of the degree scale with the temporal scale, noting the differences in meaning between:

i. a. The jelly isn't quite firm.
b. The jelly isn't quite firm yet.

where (a) is an apology for the jelly's runniness--a comment on the degree element, and (b) is a statement about it's not being ready yet--a comment on the temporal scale. This is certainly true here. However, I think the sentences cited in (169-74) show that there is more to the matter. Both sentences (i.a,b) are acceptable with not quite, and both indicate a failure of goal attainment, although (b) does so only slightly. But a sentence like:

ii. *The sauce isn't quite firm (yet).

indicates that the acceptability of the sentence with not quite has to do with goal attainment; (ii) is ungrammatical because the goal for the sauce is to be not firm.

26 This discussion is based almost entirely on Celce (-Murcia) and Schwarcz, 1969.

27 There are dialects (perhaps only of Miss Fidgets and crammers for GCE exams) which insist on a distinction between continuously and continually, with the former a durative adverb and the latter a frequency adverb. However, I always have to think carefully about the choice and so obviously don't make any distinction, and the Merriam-Webster Dictionary gives continuously as only durative and continually as either durative or frequency.

so much depends
upon

a red wheel
barrow

glazed with rain
water

beside the white
chickens

--William Carlos Williams *

CHAPTER THREE. Complex EXTENT

There are several constructions involving EXTENT which are complex--that is they involve what is traditionally called a subordinate clause or phrase. In this particular case there is a two part predication consisting of an EXTENT marker in a superordinate clause (either main clause or subordinate itself) and a subordinate clause or infinitive which is clearly linked to the EXTENT marker. This two part predication is sometimes referred to as correlative[1] because of the necessary connection between the two parts. In this chapter the complex degree types will be analyzed first and in considerable depth. The same analysis will be shown to hold for instances of complex quantity, but this will be illustrated in much less detail, the parallels being more or less self-evident. Following these descriptions and analyses, it will be shown that the parallels are pervasive and compelling and

* The Red Wheelbarrow, William Carlos William.

that in effect complex degree and complex quantity form a single linguistic entity--EXTENT.

3.10. Complex Degree

There are a number of correlative constructions which seem best described as instances of complex degree modification. They perform functions parallel to those performed by the simple degree modifiers discussed in Chapter 2; they show exactly parallel cooccurences with the intensifiers discussed in Chapter 2; they exhibit the same anaphoric processes. Consider the following underlined constructions modifying degree adjectives (1), adverbs (2), verbs/verb phrases (3), and predicate nominals (4), illustrated below:

1. a. The situation is so hopeless that they are going to retreat.
   b. He is too young to drink a Martini.
   c. I was lost enough to need a compass.
   d. Midas was as rich as he wanted to be.
   e. A Buick is more expensive than a Chevy (is).
   f. A Rolls Royce is the most luxurious car that you can buy.

2. a. John jumped up so quickly that I thought he had sat on a pin.
   b. The plane left too early for me to catch it.
   c. I hope that the Dodgers play well enough to win the Series.
   d. Ali fought more often than Cosell thought he should have.
   e. The wind died down as quickly as it had sprung up.
   f. Secretariat ran the fastest time that had ever been recorded there.

3. a. The actors whispered so, that I couldn't hear them.
   b. The river plunged too much for us to take the raft through.
   c. The rock strata had blunted the drill enough to prevent further work for the moment.
   d. The boat needed painting as much as it needed scraping.
   e. The poem actually suggested that meaning more then it stated it.
   f. Her face reddened the most that I had ever seen it.

4. a. That job is such a mess that he'll never get it straightened out.
   b. That bill is too much of a boondoggle to even get to committee.
   c. He's enough of a fool to actually put his own money in that stock.
   d. Max was more of a con man than I had expected.
   e. He's as much of a shyster as everyone told me.
   f. What he talked was the most nonsense that I've ever heard.

In all of these instances the underlined constructions are performing the same kind of function that the simple degree modifiers performed; i.e., they are asserting some degree of the head item, except these complex constructions are also either attributing a result to the degree, or they are giving a comparison about the degree, or in the case of the superlative, they are determining the set about which degree is being asserted.

All of these constructions serve as degree modifiers of degree words. When they occur with non-degree words, they don't indicate degree modification, but something else; this will be discussed later. Consider the following distributions with non-degree words:

5. a. *The door was so closed that I couldn't get in.
      (cf *very closed)
   b. *Harry showed up too at 6:00 to make the date.
      (cf *very at 6:00 but OK right at 6:00)
   c. *He's 6 feet tall enough to make the team.
      (cf *very 6 feet tall but OK almost 6 feet tall)
   d. *That's as much of a book as his previous one.
      (cf *very much of a book)
   e. *The message more consisted of three parts than anything else. (cf *very much consisted)
   f. *That's the most of a symphony that he has written.
      (cf *very much of a symphony)

And all of them take anaphoric that in discourse, just as was noted with degree modifiers in Chapter 1, e.g.:

6. a. I heard that Harry was so drunk he couldn't walk, but I didn't believe he'd ever let himself get that drunk.

b. She said she'd been too mad to talk, but I knew it wasn't possible for her to ever be that mad.
c. Nixon thought he was smart enough to fool the American people, and it turned out he almost was that smart.
d. Everybody said Max was as mean as they come, and sure enough I found out that he was that mean.
e. I'd heard that Cairo was hotter than Texas in August, but it turned out that it wasn't that hot.
f. They all said that Lone Star was the most popular beer in Texas, but after I tested it I was sure it couldn't be that popular.

The constructions themselves consist of two parts: a degree marker (so, too, enough, more, etc.), which we will see is a degree modifier of the very type, and the associated complement (that S, for...to, than S, etc.) .

The constructions are obligatorily correlative--that is, the complement cannot occur without the associated degree marker, e.g.:

7. a. *Harry is mean that he eats nails for breakfast.
(cf OK ...so mean...)
b. *The problem is complex to be solved that way.
(cf OK ...too complex...)
c. *The 747 is sophisticated to land itself.
(cf OK ...sophisticated enough...)
d. *Oliver wasn't dynamic as Brando.
(cf OK ...as dynamic...)
e. *The Buick is expensive than the Chevy.
(cf OK ...more expensive than...)
f. *This vacation is carefree you'll ever have.
(cf OK ...the most carefree...)

And while the degree markers can occur on the surface without the complements, e.g.:

8. a. If Harry is so mean, why do you put up with him?
b. After he has drunk too much, he always regrets it.
c. I'd say he'd drunk enough already.
d. Yeah, you can buy another type, but in the end it's gonna be just as expensive.
e. When you're more familiar with the controls, you won't have any trouble.
f. There are some more in the back warehouse, but that's the cheapest.

we will see below, with perhaps a very few exceptions, there is reason to believe that the complements must be recoverable, either from prior discourse or from presuppositions.

So and such both occur in complex constructions which differ from the resultatives illustrated in the examples above. They both can occur with cataphoric as clauses of result as well as that clauses, e.g.:

9. a. This year's Ferrari is so fast as to defy belief.
   b. She looked at the door so furtively as to make Sherlock spin around.

10. a. Do you think I am such a fool as to believe that cock and bull story?
    b. It is possible for noise pollution to become such a nuisance as to warrant taking legal measure against it.

Such uses as these seem clearly marginal and are probably on the retreat in colloquial speech.

A more common type of as clause occurs with both so and such is one which is used to clarify or re-identify a prior assertion of EXTENT, and is important for recovering anaphoric relationships. Consider these sentences and the associated as clauses:

11. a. If she is so beautiful as you said she was, why don't you ask her out?
    b. If he is such a quack as you believe he is, why don't you report him to the AMA?

Here the as clauses do not state or assert result but identify by reference to a prior assertion. We will need to refer to such identificational constructions in discussing complex clauses with so and such, but the main discussion will center around the more central issues illustrated by the resultative that clauses.

For reasons which will become apparent, the complex degree construction will be examined in two separate sections: the resultatives

and the comparatives/superlatives. This division is partly a reflection of syntactic and functional differences and partly simply an organizational convenience. Toward the end of the discussion, the constructions will be compared across this division.

3.11.0. The Resultatives

The correlative constructions so...that, such...that, too...(for)-to, and enough...(for)-to, are referred to as resultative because that is the basic relationship that they signal. The complement, whether a full sentential one, an infinitive, or a reduced form of either, states a result which it is asserted comes about from the degree of the head item of the construction, i.e., the modified constituent. To illustrate simply, in a sentence like:

12. Harry was so worried that his hair turned white.

the so intensifies the adjective worried and the that complement gives the asserted result of this degree of worry, namely Harry's hair turning white. This same sort of predication is true with the other combinations. The enough... may be used as a concessive, although even then the concession follows from the result. Consider:

13. I suppose Sam is smart enough to pass the Bar. (But probably not smart enough to do much more.)

This concessive use is largely the result of the fact that enough is not used here as an intensifier--it states sufficiency, not high degree--and in the appropriate circumstances sufficiency may be taken as an implied lack, thus allowing a concessionary inference from the resultative predication. This concessive use is normally signaled by

intonation; (13) would normally have non-final continuative intonation. However, with this proviso, all of these constructions will be uniformly referred to as resultatives, althought later, when we look at them from a functional viewpoint, we will see that they serve other functions.

3.11.10. So...that and Such...that

3.11.11. So...that...

So used as an intensifier can occur either with or without the accompanying resultative that clause. When the that clause is present, there are no restrictions on the occurrence of the so, except those governing its use as an intensifier, i.e., it can occur only with degree heads. There is very little of linguistic interest in the full resultative construction. However, as we will see, so can also occur without the attendant resultative that clause, and in these cases its occurences are much more restricted. We will explore these restrictions in some detail, and later we will return to the full so...that construction.

As we have seen repeatedly in examples used for illustration, so is the arch intensifier, closely related in function and distribution to the non-completive very rather than the completive intensifiers like completely, absolutely, etc. Thus we find distributions like these:

14. a. After the reactor is $\left\{\begin{array}{l}\text{completely}\\ *\left\{\begin{array}{l}\text{very}\\ \text{so}\end{array}\right.\end{array}\right\}$ finished, we'll blow it up.

b. When she is $\left\{\begin{array}{l}\left\{\begin{array}{l}\text{very}\\ \text{so}\end{array}\right\}\\ *\text{completely}\end{array}\right\}$ sick, she won't talk to anyone.

It shows such wide distribution as an intensifier that it has been used here frequently as a diagnostic for degree. It occurs freely with adjectives, adverbs, and verbs. And it is the only one of the intensifiers which can consistently modify all appropriate verbs and verb phrases, e.g.:

15. a. Romeo loves Juliet so! (cf *Romeo very loves Juliet.)
    b. The old man hobbles so!
       (cf *The old man hobbles extremely.)
    c. She criticizes him so!
       (cf *She quite criticizes him.)
    d. The flame reddened so!
       (cf *The flame reddened extremely.)

However, despite this wide distribution, when so does not have an overt accompanying that complement, it is restricted in use and occurrence. It is restricted not so much in cooccurrence as in sentence function type. It does not occur easily in non-exclamatory,[2] simple declarative positive sentences, e.g.:

16. a. *That child is so foolish. (cf OK ...very foolish.)
    b. *You can see me so soon. (cf OK ...quite soon.)
    c. *The police beat him up so. (cf OK ...terribly.)

nor in positive commands:

17. a. *Stand up so straight! (cf Stand up very straight!)
    b. *Speak so slowly! (cf Speak extremely slowly!)
    c. *Be so careful! (cf Be terribly careful!)

but it does occur quite naturally in a number of other types of sentences which will be discussed at length below, e.g.:

18. a. That child's not so foolish.
    b. If you can see me so soon, then I'll wait.
    c. When the police beat him up so, what had he done?
    d. What makes him so nervous?
    e. I don't understand why they have to chatter so.
    f. Then the man who had been so talkative shut up immediately.
    g. Don't be so silly!

In order to make sense of these distributions, it is useful to examine some non-degree uses of so.

So can be used either as an identifying modifier or as a degree modifier.[3] Its identificational uses are largely residual and probably in retreat to other identificational structures such as the demonstratives this and that used either alone or in conjunction with other identifying markers such as like this/that, that way, etc. For example, the most straightforward identifying use of so is probably found in its deictic use, and each of these uses can be paraphrased with the demonstratives, e.g.:

19. a. He's about so tall. (gesturing)
    He's about this tall.

    b. He walked about so fast. (demonstrating)
    He walked about this fast.

    c. He flipped the pancakes so. (demonstrating)
    He flipped the pancakes like this.
    He flipped the pancakes this way.

With verbs the identificational uses of so seem to be adverbs of manner. And so may be used either with or without the that clause, e.g.:

20. a. The Harrier is so designed that it can take off vertically like a Helicopter before changing to horizontal flight.

    b. The shot missed the clay pipe and hit the kewpie doll.
    Yes, I { so aimed it / aimed it so / aimed it like that / aimed it that way } .

The use illustrated in (20.a) seems to be in retreat to the more modern so that, e.g.:

21. The Harrier is designed so that ...

and the anaphoric use of so illustrated in (20.b) is now clearly marginal. Like that and that way are the more modern equivalents.

It is possible to see the contrast between identification and degree modification in certain constructions, e.g., (examples adapted from DW, 176):

22. a. It so reflected on his honor that he resigned. (= reflected so badly, degree modification)

b. It so reflected the light that the rays were closely focussed. (= reflected in such a manner, reflected like that; identification via adverb of manner)

We will use constructions with like as the diagnostic for identificational uses of such modifiers whenever necessary.

At this point we should note that in these identificational uses and in the acceptable exclamatory degree uses illustrated in (15), so must be pronounced in its full form /sow/ and cannot be pronounced in the reduced form /sə/. However, in all of the acceptable versions of (18), except for (c) and (e) where the so comes at phrase end, the reduced form with the schwa is possible.[4] This reduction of vowels under stress reduction is one of the hallmarks of anaphoric material; stress is reduced due to the anaphora and the vowel reduces wherever possible.[5]

This fact, along with a functional analysis of the sentence types where the so can occur as an intensifier in its reduced form, points us in the direction of the observed restrictions on the uses of intensive so without an overt attendant complement clause. So is fundamentally referential in nature,[6] as opposed to the simple degree modifiers, which are fundamentally assertive. This referentiality may show us as

in instances like.[7]

23. a. A: There's one mistake you made. I'm not Count Dracula.
    B: I'm sorry I got so confused
  b. A: What are you doing here again?
    B: You didn't expect to see me so soon, did you?
  c. A: I understand you have been worried about your son. Has he been booked by the police?
    B: Yes, and that's what worries me so.

And it may be used under the assumption of shared knowledge without the actual referent present either in prior discourse or result clause, e.g.:

24. I guess you know how it feels to...get sent up for something you didn't do. ...You feel so hopeless.
(--John McDonald)

And in a total lack of context, it can serve to imply a shared assumption, whether it actually exists or not, e.g.:

25. It is all the world. It is every man everywhere. Germany has just been the first to show the infection. That makes it so hopeless.
(--Taylor Caldwell)

And of course when the result is overtly expressed in the form of a <u>that</u> clause, the referent is available in this cataphoric clause. It is worth noting that in all of the examples of (23)--(25), the simple degree intensifiers like <u>very</u>, <u>terribly</u>, <u>quite</u> would be much less likely than <u>so</u>.

Intensifier <u>so</u> then, when there is no surface complement given, is basically anaphoric, and as such there must be at least a suggestion of what the complement might be. In exclamations, the assumed clause is an implied complement,[8] e.g.:

26. a. I am <u>so</u> happy! (that I will probably burst, ...)
  b. We must leave <u>so</u> soon! (that I'm going to cry, ...)

c. That calculus problem confounded me so!
(that I never did get it worked, ...)

Such clauses of course could be suggested either by the actual preceding discourse or the circumstances surrounding the utterance, and thus could be considered recoverable. However, it is not clear that they are uniquely recoverable. For example, in the sentence (26.a), we can supply possible complements which might have been intended, but such exclamations are also used even when there is no clearly apparent recoverable complement. The lack of the complement simply implies that one could be provided, even though it in fact does not exist in the speaker's intentions or prior discourse.

In non-exclamatory sentences the anaphoric referent is still necessary, but sorting it out is quite complicated. First of all, it can be shown that so cannot be used for just a straight bare assertion. This has already been illustrated in the failure of the straight declarative sentences of (16). And it cannot be used in positive commands as seen in (17). Since commands cannot be assertions, we cannot explain the failure of so to occur in commands as being a result of the assertive environment. However, the presuppositional properties of commands and assertions are parallel in many ways, as we will see shortly.

The inability of so to occur as an assertion of degree can be demonstrated by using a context which clearly calls for an assertion of degree. A positive answer to a question about degree requires an assertion of degree, and so cannot occur in such answers, while the

simple degree modifiers can, e.g.:

27. a. How tall is your friends? He's { very / quite / terribly / *so } tall.

b. How fast can Max run? He can run { very / awfully / rather / *so } fast.

c. How much do you respect her?
I respect her { very much / terribly / terrifically / *so (much) }.

However, under negation this difference seems to be neutralized, and either simple degree modifiers or so can occur, and so seems little more than a variant of very, e.g.:

28. a. Is your friend very tall? No, he's not { very / so } tall.

b. Can Max run fast? No, he can't run { very / so } fast.

c. Do you respect her? Not { very / so } much.

Here, for me the so must be reduced to /sə/ to be a true variant of negative very.

Used anaphorically, there are two major restrictions on so. The first restriction has to do with the definiteness of its referent[9] and the second has to do with its intensive function.

The restriction on definiteness can be seen most easily by putting it in contrast with the more general degree pro-form that, mentioned earlier in Section 3.10. The more definite the referent, the less acceptable so will be. This can be illustrated by looking at a variety

of sentences with so and that and comparing their acceptability with varying definiteness in the referents. Note, that in all of these cases we are using declarative sentences for the so/that frame.

29. a. A: Why'd the coach recruit that kid? He's only 15.
B: You gotta get them {*so / that} young nowadays.

b. A: Why'd the coach recruit that kid? He's little more than a child.
B: You gotta get them {so / that} young nowadays.

30. a. A: That wax is already 150°; it'll soon be boiling.
B: I know; it's gotta be {*so / that} hot to work right.

b. A: That wax is already hot enough to burn hell out of you.
B: I know; it's gotta be {so / that} hot to work right.

31. a. A: Can you sand this pieces down to 3/32s of an inch?
B: Are you sure you want it {*so / that} thin?
A: Yeah. It's gotta be {*so / that} thin to fit.

b. A: Can you file this won razor-thin?
B: Are you sure you want it that thin?
A: Yeah. It's gotta be {so / that} thin to fit

In all of the (a) examples, the referent is more definite than in the (b) examples and the so versions are either ungrammatical, or at least less acceptable, than the that versions, and the so versions improve in the (b) sentences, where the referent is more general and less definite.

On the other hand, if the referent becomes too indefinite, especially with non-measurable qualities, then that becomes less acceptable, e.g.:[10]

32. A: We heard the Senator was really angry with the President. What happened?

B: Well, he's $\left\{\begin{matrix}\text{so}\\ ??\text{that}\end{matrix}\right\}$ mad because the President is going to support his opponent in November.

33. A: The boss really looks like he's in seventh heaven. What happened?
B: The reason he's $\left\{\begin{matrix}\text{so}\\ ??\text{that}\end{matrix}\right\}$ happy is that he just sold his stock in the company.

No doubt there is a gradient in definiteness that will vary with lexical item, context, presuppositions, speakers, etc., in determining the acceptable uses of so and that in such cases, often making either choice acceptable, but the principle operating seems clear.[11]

Secondly, so is used only where the antecedent is compatible with the intensive meaning of so. Consider these sentences:

34. A: You want me to make the paint thicker? It's already too thick to stir.
B: It's supposed to be $\left\{\begin{matrix}\text{so}\\ \text{that}\end{matrix}\right\}$ thick.

35. A: Do you always make crepes thin enough to roll?
B: Yeah. They're supposed to $\left\{\begin{matrix}\text{*so}\\ \text{that}\end{matrix}\right\}$ thin.

36. A: That trucker looked mad enough to eat nails for breakfast.
B: Yeah, I know. He got $\left\{\begin{matrix}\text{so}\\ ?\text{that}\end{matrix}\right\}$ mad because Smokey used radar on him.

In (34) the referent for so is intensive--too, and the so is thus acceptable. However, in (35) the referent is not intensive, either in form (enough = sufficient) or meaning, and the so cannot occur. And (36) illustrates that it is meaning and not form which governs the acceptability; mad enough to eat nails is intensive in meaning, roughly equivalent to very, very mad, and so is acceptable.

There is the same kind of distribution in questions. If the question makes reference to a degree which is assumed to be intensive, either so or that may be used as the anaphora, but if the reference is not intensive in meaning, then only that will be acceptable. e.g.:

37. a. A: She's too attractive for this part.
B: Why'd you pick one $\left\{\begin{matrix}\text{so}\\ \text{that}\end{matrix}\right\}$ pretty?

b. A: She's prettier than the part calls for.
B: Why'd you pick one $\left\{\begin{matrix}\text{so}\\ \text{that}\end{matrix}\right\}$ pretty?

38. She is just barely pretty enough to fit the part.
And she has blonde hair.
Couldn't you find one $\left\{\begin{matrix}\text{*so}\\ \text{that}\end{matrix}\right\}$ pretty who had dark hair?

Both questions of (37) allow so because in each case the degree is excessive and thus the intensive reference requirement is met. (37.b) demonstrates that the excessiveness resides in the meaning and not in the syntactic form; the comparative is used to indicate the excessiveness there, where in (37.a) the excessive too was used. So is not acceptable in (38) because the referent indicates only sufficiency and the intensive meaning of so is anomalous.

Thus there are two basic conditions for acceptable use of anaphoric so; the referent must be indefinite and its meaning must be intensive. It seems likely that these two conditions are related. If a quality is given specifically, then somehow it becomes less intensifiable--it simply is whatever it is. Thus in a sentence like (31.a), to talk about sanding something down to 3/32s of an inch may be understood to be making it quite thin, but once the exact specification is given it is fixed in size and thus somehow not as subject to implied

specification by anaphoric so, in the same way very 7 feet tall is not good.

So far we have confined the discussion to occurrences of so in main clauses. There are important consequences of the status of anaphoric so in dependent clauses as well, in particular in complements. It was noted earlier that so without an overt complement could not occur in straight assertions-- i.e. in positive declarative sentences, while the simple degree modifiers like very, terribly, etc. could. When we begin to examine dependent clauses we find some interesting facts. Consider these sentences:

39. Karl was extremely nervous about his passport.
    a. It was obvious to me why he was $\left\{\begin{matrix}\text{so}\\ \text{very}\end{matrix}\right\}$ nervous.
    b. It was obvious to me that he was $\left\{\begin{matrix}\text{*so}\\ \text{very}\end{matrix}\right\}$ nervous.

The differences here are based on the different functions the complement clauses perform. In order to explain this it is necessary to recapitulate some arguments about presupposition and assertion. Kiparsky and Kiparsky (1968) discuss classes of factive and non-factive predicates and the types of material which can be embedded under the two different kinds of predicates. They note that factive predicates like resent, regret, strange, interesting, etc. may take only complements in which the material is presupposed to be true. Thus in a sentence like:

40. Max resents that Sally goes out with Sam.

the normal rules of discourse allow the speaker to use the factive resent only if he believes that the complement proposition is true. Non-factive predicates like think, believe, report, claim, say, etc.

do not impose this restriction on their complements; they leave the truth value of the complement open. Thus a sentence with a complement of a non-factive predicate like:

41. Max thinks that Sally goes out with Sam.

does not require the speaker (or the listener) to hold that the proposition is true. A factive can be negated without effecting the status of its complement, while the negation of a non-factive may effect the value of the complement. Thus a negation of (40) would not change the value of the complement; it would still be presupposed that Sally goes out with Sam. The negation of (41) on the other hand would also negate the complement. Similarly, a denial of the complement proposition of a factive is anomalous, since it is presupposed to be true, but not of a non-factive, e.g.:

42. Max $\left\{\begin{matrix}\text{*resents}\\ \text{thinks}\end{matrix}\right\}$ that Sally goes out with Sam, but I don't believe it.

Hooper and Thompson (1973) claim that presupposition and assertion are mutually exclusive, i.e., that a proposition which is presupposed cannot at the same time be an assertion, and vice versa; an assertion cannot be presupposed (although it may of course contain presupposed material). They claim then that assertions should not appear in clauses which are presupposed propositions.

If we apply the presupposition analysis to the sentences in (39), it can be seen that in (39.a) <u>obvious</u> is being used factively and that the truth of the embedded question complement is presupposed, while in (39.b) <u>obvious</u> is being used non-factively and the complement is not presupposed. This is borne out by the fact that (39.a) can be negated

without changing the truth value of the complement, while a negation of (39.b) does change the truth values of its complement, e.g.:

43. a. It wasn't obvious to me why he was very nervous.
(it is still presupposed that he is very nervous)
b. It wasn't obvious to me that he was very nervous.
(whether he is very nervous or not is not presupposed; he might not be nervous)

And (39.a) cannot be contradicted without anomaly, while (39.b) can be, e.g.:

44. a. *It was obvious to me why he was very nervous, but nobody else believed he was very nervous.
b. It was obvious to me that he was very nervous, but nobody else believed he was very nervous.

Looking now at the distribution of so and very in (39), it can be seen that so is good only in the complement which is presupposed, i.e. (39.a). This then leads us to the hypothesis that so will occur in presupposed clauses, or perhaps less stringently, in clauses where the degree is presupposed.

When we examine other instances of presupposed clauses, this hypothesis seems to be borne out. Hooper and Thompson (1973) cite four major clause types in which the proposition of the clause is presupposed to be true: (a) complements of factives, (b) restrictive relative clauses with definite heads, (c) restrictive because clauses, and (d) various temporal clauses such as those beginning with when, before, after, etc. And so occurs easily in all of these types of clauses, e.g.:

a. complements of factives:

45. a. Max resents it that Harry is so rich.
b. I was surprised that Mary complained so.
c. It's ironical that History has mistreated Aaron Burr so.

d. That Carter turned out to be so fiscally conservative isn't surprising.

b. restrictive relatives with definite heads

46. a. NASA tried to recruit the man who was so impervious to gravity-less conditions.
b. The police arrested the woman who was complaining so.

c. restrictive because

47. a. John loves his wife because he is so beautiful, while I love mine because she's so crazy.
b. My mother let me have a puppy because I howled so.

d. temporal clauses

48. a. Before Louisiana was purchased so cheaply, the US was only a small, disaffected, ex-British colony.
b. After Dolly complained so, Madison finally agreed to a full State Dinner.

While it is not necessary to go into it here, it should be noted that in all these examples, simple degree modifiers, especially the stronger ones like extremely and terribly don't occur nearly so easily in such environments. The reason is clear; if the material in the clause is presupposed, then presumably the degree involved has already been asserted and a repetition of the assertion would be at least stylistically leaden, if not downright ungrammatical.

There are of course other sentence types which presuppose material. For example, information questions presuppose everything except what is questioned, and thus in non-degree questions, degree will be presupposed, and such questions easily allow so, e.g.:

49. a. Why are you so late getting to work?
b. When did Burr get so interested in Texas?
c. Why did the Senator complain so?
d. How on earth did the US ever get so involved in Vietnam?

Embedded questions are presupposed and they accept so, e.g.:

50. a. I don't know how he got so tall.
    b. I wish I knew how that lobby became so influential.
    c. We need to find out why she was crying so.
    d. Our broker wants to know why we're so bullish on electronics.

So far we have seen many instances in which anaphoric so occurs in clauses which presuppose the degree that the so refers to. However, to prove the case conclusively, it is necessary to show that when a clause is asserted, so cannot occur.

Hooper and Thompson note several types of complements which should be taken to be assertions rather than presuppositions. They link assertiveness in complements with the ability of the complement to accept root transformations, which they claim are emphatic in nature and should therefore not occur in presupposed material, but only in assertions. If our analysis of the functions of simple intensifiers like very, extremely, etc. in contrast with anaphoric so is correct, then the distribution should show parallels with Hooper and Thompson's analysis. The assertive forms, very, extremely, etc., should occur in the assertive clauses while the anaphoric so and that should not. This in general seems to be true.

Hooper and Thompson point out that verbs of saying or reporting like may, report, exclaim, vow, be true, be certain, etc. take complements which make independent assertions. It is not necessary to repeat their arguments here. However, it does seem that this analysis of so versus very follows their analysis of assertion and presupposition.

Consider these sentences:

51. We'd heard that the President was mad enough to chew nails. Longworth went to reconnoiter for us. He reported that the President was indeed $\left\{\begin{matrix}\text{very}\\ \text{*so}\end{matrix}\right\}$ mad.

52. Batman was held in total thrall by Gotham's citizenry. Superman vowed that he'd also become $\left\{\begin{matrix}\text{very}\\ \text{*so}\end{matrix}\right\}$ famous.

53. Everybody believed Hughes was a latter-day Midas. And it was true that he was $\left\{\begin{matrix}\text{very}\\ \text{*so}\end{matrix}\right\}$ rich.

Verbs like <u>believe</u> and <u>think</u> take complements which make assertions independent of the main verb, and this is most obvious when the complement is preposed. Thus a sentence like:

54. Harry'll be home soon, I think.

is asserting that Harry will be home soon, not that the speaker <u>thinks</u>. And it seems to be the case that <u>so</u> cannot be used in such complements, while the simple intensifiers can, e.g.:

55. We'd always wanted a genius in the family. Albert will be $\left\{\begin{matrix}\text{very}\\ \text{*so}\end{matrix}\right\}$ smart, I think.

56. We asked him to make the table top very smooth. He got it $\left\{\begin{matrix}\text{very}\\ \text{*so}\end{matrix}\right\}$ smooth, I believe.

Thus, Hooper and Thompson's analysis of clauses which assert rather than presuppose supports our claim about the essentially referential nature of anaphoric <u>so</u> and the assertive nature of the simple intensifiers.

There is one further set of clause types which need to be examined with respect to the occurrences of <u>so</u>. There are clause types which neither assert nor presuppose. According to Hooper and Thompson,

predicates like likely and possible neither assert nor presuppose their complements. When we examine so and simple intensifiers in such complements, we find that both types occur, e.g.:

57. He vowed he'd be a billionaire by the time he was 35. It's very likely that he'll be {so / very} rich by then.

58. He promised he'd be as skinny as a rail by Christmas. And the way he's going, it's quite possible he'll be {so / very} thin by then.

According to Hooper and Thompson, noun complements with head nouns like claim, report, idea, notion, etc. are neither asserted nor presupposed. When we examine degree modifiers in such clauses, we find both so and simple intensifiers can occur, e.g.:

59. The publicity agents proclaimed that all the condominiums were extremely quiet. This claim that they were {so / very} quiet proved to be quite false.

60. Mortimer was positive miniaturized electronic calculators would never be a major product because there was no way their enormously expensive production costs could be reduced. However, his notion that they would always be {so / very} expensive was proved wrong the very next year with the introduction of printed circuits.

Conditionals suspend both presuppositions and assertions. Both so and simple intensifiers occur easily in conditional clauses, although it is possible to see meaning differences when they are put in contrast, e.g.:

61. If you're so smart, why ain't you rich?

62. a. If your neighbor is so pretty, I think I'll visit her.
b. If your neighbor is very pretty, I think I'll visit her.

The (a) version of (62) assumes a referent for so with a meaning

something like:

63. I've heard and believe your neighbor is very beautiful, and I think I'll visit her.

while the (b) version does not assume any referent.

What seems to be happening in the clauses in which there is neither presupposition nor assertion, is that anaphoric so can occur just in case there is not an assertive environment. If the environment is not assertive, then the anaphoric form can occur and when it does, it allows the speaker or writer to imply or assume that the degree referred to is presupposed. We saw evidence of this earlier in two prose passages where there were no actual referents present; the writer used the anaphoric so to imply shared knowledge or assumptions, e.g. (repeated here with the original numbering):

24. I guess you know how it feels to ...get sent up for something you didn't do. ...You feel so hopeless. (--John MacDonald)

25. It is all the world. It is every man everywhere. Germany has just been the first to show the infection. That makes it so hopeless. (--Taylor Caldwell)

It is worth noting that in both of these examples, since the writer is in fact using implied shared knowledge and thus creating the conditions for the anaphoric so, the assertive very would be unacceptable substituted for so.

I have no doubt that there are many other problems of analysis lurking amid this discussion of presupposition and assertion; every grammarian who has tried to make sense of functional relations and their connections with assertion and presupposition has discovered (or more likely, had pointed out to him) many a bramble bush hiding under easy

generalizations.[12] But the general outline here seems clear and has allowed us to make generalizations where before they were not at all apparent.

To recapitulate briefly, we are now in a position to make some sense of the diversity of cooccurrence restrictions noted earlier in this section, and displayed in these sentences:

64. a. *That child is so foolish.
    b. *You can see me so soon.
    c. *The police beat him up so.

65. a. *Stand up so straight!
    b. *Speak so slowly!
    c. *Be so careful!

66. a. That child's not so foolish.
    b. If you can see me so soon, then I'll wait.
    c. When the police beat him up so, what'd he done?
    d. What makes him so nervous?
    e. I don't understand why they have to chatter so.
    f. Then the man who had been so talkative shut up immediately.
    g. Don't be so silly!

Anaphoric so doesn't occur in non-exclamatory, declarative, positive sentences like those of (64) because the function of such sentences is to make assertions, and so is anaphoric, not assertive, and can be used only in an environment which allows referents to be echoed or presupposed. Similarly, with the positive imperatives in (65); they are used in situations parallel to assertions; they do not require presupposed material to be acceptable. And the acceptable sentences in (66) are all sentences in which degree can be presupposed and thus anaphoric so can be used to refer to that presupposed degree.

Before moving on in the discussion of so constructions, I would like to make one caveat excursus. It should be noted that when we

discuss this distribution concerning the occurrence of so in various types of sentence types and subordinate clauses, we are not really discussing a phenomenon concerning types of clauses in English. It is really a description from the viewpoint of a sentence grammar of the kinds of sentences so may appropriately occur in. However, to think of the phenomenon being the result of sentence types is to put the cart before the horse. In fact all of the cooccurrence restrictions of so which we have thus far investigated result from the basically referential nature of so. It cannot occur in discourse initial sentences (except in the trivial sense that a speaker or writer might use it discourse initially for rhetorical effect) because it must have some set of assumptions to refer to either in the positive or negative. Thus it does not occur in positive imperatives, but it does occur in negative imperatives, e.g.:

67. a. *Stand up so straight!
    b. Don't stand so stiff!

because the positive occurs in a pragmatically blank context with no assumptions or presuppositions involved, except those necessary for the speech act itself. The negative on the other hand would be used only in the context of the speaker's assumption that something is amiss and needs correcting,[13] and it is this assumption which serves as the referent for the so, and which we can paraphrase by the identifying as clause, e.g.:

68. Don't stand so stiff (as you are standing now)!

It is exactly the same set of facts which accounts for the distribution of so in complex sentences. The so may occur in dependent clauses which

can convey presupposed material in continuing discourse. Thus, none of the types of clauses we examined where so appears could occur in discourse initial utterances. They all require a surrounding set of assumptions which form the context in which they may be used. Thus the observations noted here about the occurrence of so in various types of clauses are accounted for not by the types of clauses, but by noting only that so is referential in function, and its occurrence then follows from the properties such clauses have in terms of their disccurse functions and limitations.

When we turn to consideration of the full so...that... correlative with the complement given cataphorically, there is little to be noted which hasn't already been covered by the more complex behavior of anaphoric so. The construction consists of two predications, one subordinate to the other. First, the evidence for two predications. It seems to be generally agreed that the ability to take tag questions is evidence of an assertion (Hooper and Thompson, 1973). With so...that both clauses may have a tag question, e.g.:

69. a. The plane was so early I didn't have time to buy any magazines, $\left\{\begin{array}{l}\text{wasn't it}\\ \text{did I}\end{array}\right\}$?

b. The old woman chattered so, I almost screamed, $\left\{\begin{array}{l}\text{didn't she}\\ \text{didn't I}\end{array}\right\}$?

The primary assertion is about the degree producing the result and the secondary assertion is about the resulting circumstances. If the secondary assertion is negated, it doesn't effect the predication of the primary assertion, although it might be anomalous as a stated result,

e.g.:

70. a. The train was so early that I bought some magazines.
    b. The train was so early that I didn't buy any magazines.

(70.a) and (70.b) clearly mean something different, due to the presence or absence of negation in the complement clause, but the primary assertion, viz., that the train was early <u>to some great degree which resulted in something</u> is left intact. However, negation in the primary assertion affects both the meaning and the syntax of the result clause. Consider these sentences, alternating positive with negative:

71. a. I was so tired that I didn't even take my shoes off.
    b. I wasn't so tired that I didn't take off my shoes.
       (I did take them off)

72. a. The train arrived so late that I had plenty of time to read the magazines.
    b. The train didn't arrive so late that I had plenty of time to read the magazines.
       (I didn't read the magazines for very long)

Thus negation of the primary assertion in the main clause also negates the result clause. It also conditions negative polarity, e.g.:

73. a. I wasn't so energetic that I'd lift a finger to help.
    b. I didn't leave so early that I had any time to waste.

These facts about negation support the contention that the assertion contained in the result clause is subordinate to the assertion given in the main clause. Negation in the lower clause doesn't effect the assertion (or syntax) of the main clause, whereas negation in the main clause will extend its scope to include the subordinate result clause. We will note shortly that this has another syntactic consequence.

There is one version of the <u>so...that</u> construction that seems to be a direct consequence of the anaphoric properties of <u>so</u>. If a <u>so...that</u> sentence has a positive main clause, the complement may be

preposed, dropping the complementizer, e.g.:

74. a. Harry's hands were shaking, he was so nervous.
    b. I didn't have time to buy any magazines, the train was so early.
    c. He finally called the cops, his neighbors were shouting so.

This is possible because the so is still in place acting anaphorically, even though it is anaphoric now only within its own sentential framework. There is an additional point of interest here that should be noted. Hooper and Thompson (1973) claim that only complements which are assertive can be preposed. Thus the complement of a factive predicate cannot be preposed because it is presupposed, not asserted, but the complement of non-factives can be preposed since they may contain assertions independent of the superordinate predicate. Thus we find distributions like this:

factives

75. a. I regret that Harry doesn't come to work on time.
    b. *Harry doesn't come to work on time, I regret.

76. a. It is strange that Jack failed chemistry.
    b. *Jack failed chemistry, it is strange.

non-factives

77. a. I believe that Harry will be on time today.
    b. Harry will be on time today, I believe.

78. a. It seems that Sam flunked math.
    b. Sam flunked math, it seems.

Since, as we have seen, the result clause in the so...that construction contains an assertion independent of the superordinate assertion, the ability of the result clause to be preposed follows exactly Hooper and Thompson's claims about the complements which can be preposed.

When we later look at the cases of too... and enough... with respect to this ability, we will see that they too will support the claim made by Hooper and Thompson; their complements cannot make independent assertions and they will not allow the complement preposing illustrated here with the so...that construction.

If the main predicate in the so...that construction is negative, the result clause cannot be preposed, e.g.:

79. a. Sam wasn't so distracted that he forgot his worries.
    b. *Sam forgot his worries, he wasn't so distracted.

80. a. Her husband doesn't snore so, that his wife stays awake.
    b. *His wife stays awake, her husband doesn't snore so.

This failure of the result clause to prepose is almost certainly a restriction having to do with the scope of the negative. We saw earlier that the negative in the main clause also negates the assertion given in the result clause. If the negative of the main clause negates the subordinate clause, then the subordinate clause is no longer making an independent assertion, but is taken as assumed or presupposed for the background of the negation. Therefore the failure of the preposing again follows Hooper and Thompson's analysis of when clauses may prepose. They can prepose only when they are assertions.

To recapitulate briefly, we have seen that degree so is intensive in meaning and referential in function. The intensive meaning restriction is straightforward. The referential restriction can be met in either of two ways. If the that result clause is given overtly, intensive so is referential to its own cataphoric clause. However, if the result clause is not present, then a referent must be available to

serve as the antecedent. The referent may be actually present in the prior discourse, or it may be implied by the presuppositions involved in the discourse. This referential nature of so creates various limitations on the types of clause types so may occur in. It cannot occur in clauses which assert degree. It can occur in clauses which are neutral with respect to any degree meaning, in which so then suggests shared assumptions, or it may occur in clauses in which degree is presupposed, and so serves as an anaphoric form reflecting the presuppositions.

The remainder of this chapter will be devoted to exploring other types of complex degree and quantity structures with respect to how they are similar to so and how they are different from so.

3.11.12. Such...that

Such exhibits an extraordinary number of parallels with so. These parallels are so pervasive that some analyses have suggested that degree such and so be treated as suppletive forms, with distributions depending on the head item modified; if the head is a noun, such occurs, otherwise so.[14] This particular issue will be discussed in Chapter 4.

First of all, like so, such has an identificational use as well as a degree use (DW, 62 ff). When such modifies non-degree nominals, its function is to identify and--just as was true with identificational so--the identifying uses can be paraphrased with like and the demonstratives this/that. If there is a following as clause, such is referential to

it, e.g.:

81. a. Such a man as would behave that way should be pistol-whipped.
    b. That is such a location as will guaranteee you a steady stream of window-shoppers.

82. a. I hope to be able to find such a calculator as I saw advertised in the Gazette yesterday.
    b. If I should meet such an animal as Harry was describing, I'd surely run.

Such uses as these seem clearly marginal now. The constructions with as for subject such as those in (81) are more likely now to occur with just the head and an identifying relative clause, e.g.:

81'. a. A man who would behave that way... or A man like that...
     b. That is a location which will...

And the ones in (82) are more apt to occur with the like construction, e.g.:

82'. a. ...a calculator like the one...
     b. ...an animal like the one...

However, the main use of the identificational as with such is the use to recall an anaphoric referent, recalling it either directly from prior discourse or from assumed shared assumptions. The such can appear either before the nominal or following it. Consider these examples:

83. A: I just saw an advertisement for a calculator which you can program.
    B: a. If I had such a calculator as that, it would save me lots of time.
       b. If I had a calculator such as that it would save me lots of time.

The example with the such following the nominal is probably the more modern form and perhaps derives from the analogy of its paraphrastic cousin, like that, e.g.:

c. If I had a calculator like that ...

The next step is using such without any identifying clause, parallel to so, e.g.:

84. Have you been looking for a cure from restlessness and anxiety caused by neuralgia and neuritis?
Here is such a cure.

85. Do you want a President you can trust? A man who will obey and enforce the law and bring order to the society?
Richard Nixon is such a man.

This seems to be the prevalent usage for identificational such in current speech. Thus such, like so, is fundamentally referential in nature, referring either to a cataphoric clause or to a real or assumed anaphoric referent.

Syntactically there is a restriction to indefiniteness (DW, 62 ff), whether there is an overt clause or not. This is seen most easily in the ungrammaticality of such with a following definite article: such a party versus *such the party. The meaning of such is indefinite; such a party means a party like that or a party of that type not that party. Thus the head item that such modifies must be indefinite syntactically. It follows that such cannot be used as the anaphoric form for a definite referent, e.g.:

86. a. The police wanted to speak to the man who had reported the robbery.
I directed them to $\left\{\begin{array}{l}\text{that}\\ \text{*such a}\end{array}\right\}$ man

However, the restriction is not just to indefiniteness. It is more complex.

In order to understand the anaphoric role such plays, it is useful to put it into contexts and compare it with two other pro-forms, it and

one. Consider this time-worn example:

87. John wants to catch a fish.
If he catches { it / one / *such a fish } we'll eat it.

Here it is used to refer to a specific fish that John wants to catch, and one refers to any fish, the non-specific instance. Such doesn't work at all because such refers to a type, not a token. Such could only work if the head modified by such was more inclusive than the referent, e.g.:

88. John wants to catch a nice, succulent, rainbow trout.
If he catches { it / one / such a fish } we'll eat it.

We might even think of such serving as an indefinite demonstrative. Using plurals to avoid the article, compare these two sentences:

89. The train just brought in a load of the toughest, meanest, roughnecks I've ever seen.
I wonder where they found { those / such } men?

The definite those refers of course to that particular group of men. The indefinite such refers to that type of men. And each of these can be linked to a following restrictive clause, e.g.:

90. a. those men who the train just brought in
b. such men as the train just brought in

And there are pragmatic considerations as to when such can be used. Consider the following series of sentences and the varying acceptability of it and such as the referent becomes increasingly less common and more exotic:

91. a. A: I just bought a new car.
B: Where did you buy { it / *such a car } ?

b. A: I just bought a new blue car with a manual transmission.
B: Where did you buy $\left\{\begin{array}{l}\text{it}\\ \text{*such a car}\end{array}\right\}$?

c. A: I just bought a new car with a candy-striped paint job.
B: Where did you buy $\left\{\begin{array}{l}\text{it}\\ \text{?such a car}\end{array}\right\}$?

d. A: I just bought a new car with an inertial retrogressive energy recovery system.
B: Where did you buy $\left\{\begin{array}{l}\text{it}\\ \text{such a car}\end{array}\right\}$?

Here we can see the effects of pragmatics governing the choice of <u>such</u>. In (a) and (b) the car described is an ordinary car. For B to ask for further identification with <u>such</u>, in effect saying <u>a car like that</u>, would be anomalous because such cars are common and would not normally need the further identification implied by <u>such</u>. In (c) and (d), on the other hand, the car described is much less common and the identification provided by <u>such</u> is more appropriate. Thus the use of <u>such</u> is restricted to indefinites, but indefinites which, for whatever reason, may require the demonstrative identification provided by the <u>such</u>.

When we turn to the use of <u>such</u> as an intensifier used with degree predicate nominals, the parallels continue with intensive <u>so</u>. <u>Such</u> used in a positive declarative-type sentence makes them exclamatory, e.g.:

92. a. She is such a beauty!
b. I am such a fool!
c. My boss is such a scoundrel!

Such sentences cannot be said without exclamatory intonation and stress; otherwise they will either be ungrammatical or their meaning will revert to a non-degree identifying meaning, e.g.:

93. She is such a beauty (as I described to you).

Such does not occur as an intensifier in positive imperatives, e.g.:

94. a. *Oh Reginald, act like such a gentleman!
(cf OK ...like a gentleman!)
b. *Please be such a dear and bring me a gin and tonic!
(cf OK ...be a dear and...!)

However, it can occur in negative imperatives, including those under negative implicative predicates, e.g.:

95. a. Oh Reginald. Don't be such a gentleman! Hit him back.
b. Forget she's such a beauty and just be natural around her!

In general, the occurrence of intensive such exactly parallels intensive so. The conditions are the same; if it occurs without an overt that clause to act as its referent, then it can appear only in a non-assertive clause, in particular in clauses in which the proposition is presupposed. Compare the following occurrences with those for so in the preceding section:

complements of factive predicates

96. a. It is obvious { why your friend is such a nuisance. / *that your friend is such a nuisance. }
b. It wasn't surprising that Nixon was such a crook.

restrictive relatives with definite heads

97. a. The police are looking for the dog which caused such a commotion.
b. The man who was talking such garbage left the party early.

restrictive because

98. a. She was very impressed because he was such a genius.
b. Because it is such a danger, plutonium is shielded with even greater care.

temporal clauses

99. a. When you're such a miser, you don't eat lobster.
b. I used to read Mailer a lot until my wife discovered he was such a male chauvinist.

As we saw earlier, predicates like say, report, exclaim, etc. take complements which allow independent assertions, and we saw that in general intensive so did not occur in such complements. The same is true for intensive such, e.g. (NB: *here refers only to intensive such, not to identifying such):

100. a. We'd heard that the talks between Carter and Brezhnev had failed completely.
*Then the US Press Attache finally came out and said that the talks were such a fiasco.
(cf OK The Secretary of State really regretted that the talks had been such a fiasco.)

b. When Wilbur Mills jumped into the Reflecting Pool,
*The Post dutifully reported that he had made such a public ass of himself.
(cf OK ...The Post expressed its dismay that he had made such a public ass of himself.
NB: dismay is factive)

It is unnecessary to continue illustrating every single parallel in the behavior of intensive such compared with so. The reader will find that almost everything noted about intensive so will apply equally to such...; at least within the boundaries of the fact that such can occur only with nominals, while so has a much wider distribution.

However, there is one construction in which so and such illustrate an alternation, and this particular construction is worth exploring here in some depth because it will be germane to a good bit of the discussion later concerning how so...that and such...that should be represented in linguistic structure.

Intensive such modifies noun phrases, e.g.:

101. a. such a fool (cf *a such fool)
b. such autocrats
c. such nonsense
d. such an absolutely divine strawberry milkshake

and it modifies by selecting the adjective-like quality in the degree noun and intensifying that quality. With epithets, this is simply the intensification of the associated epithetic quality itself, e.g.:

102. a. such a bastard = so mean/wicked/etc.;
≠ so illegitimate
b. such a wreck = so wreck-like, so like a wreck

Most degree nouns have non-degree counterparts which are simply referential nominals which have acquired some adjective-like association; such selects out these intensifiable features and intensifies them in the same way that so does with degree words, e.g.:

103. a. such a Machiavelli = so Machiavellian in character or behavior, namely so devious
b. such a child = so childish
≠ so child-like

It should be noted that just like so, such intensifies qualities inherent in the degree nominal modified, so for example in constructions like:

104. a. such a trickle
b. such a trifle
c. such a hint

105. a. such a flood
b. such a problem
c. such a secret

such is intensifying the qualities inherent in the nouns. Thus such a trickle can only mean such a small stream, never such a large stream; such a flood can only mean such a large flow of water, never such a small flow. These facts will loom larger later in the paper as we begin trying to analyze structural relationships.

Since such modifies noun phrases, it often happens that such will also modify an attributive adjective which occurs as part of the NP.

If the noun in the NP is <u>non-degree</u> and the adjective is <u>degree</u>, <u>such</u> will intensify the adjective, e.g.:

106. a. such a devious person = so devious a person
cf *such a person
(used intensively)
b. such an important issue = so important an issue
cf *such an issue

If the adjective is <u>non-degree</u> and the noun is <u>degree</u>, then the <u>such</u> intensifies the noun, e.g.:

107. a. such an utter fiasco (cf *so utter a fiasco)
b. such a possible drawback (cf *so possible a drawback)
c. such a financial loss (cf *so financial a loss)

And of course if both are <u>degree</u>, they will both be subject to the intensification, e.g.:

108. a. such a crazy fool (cf so crazy a fool)
b. such a foolish escapade (cf so foolish an escapade)

This then brings us to another construction (and one which we've used for illustrative purposes here) which interrelates with <u>such</u> modifying a complex noun phrase consisting of attributives modifying the noun of the NP. If the adjective in the construction is a degree adjective, and the NP has the indefinite article <u>a/an</u>, the adjective may appear before the indefinite article and <u>so</u> will be used as the intensifier rather than <u>such</u>:[15]

109. a. such a foolish venture = so foolish a venture
b. such a tall man = so tall a man

However, the adjective must be intensifiable, either lexically or according to the meaning of the context before it can occur outside of the NP, e.g.:

110. a. such a possible drawback *so possible a drawback

b. A: I just saw a new waterproof watch advertised that glows in the dark underwater.
B: I need {such a waterproof watch / *so waterproof a watch}.

c. A: I just saw a new waterproof watch advertised which is guaranteed water-tight down to 100 meters.
B: I need {such a waterproof watch / so waterproof a watch}.

Not surprisingly, there may be restrictions in this pattern of relationships which result from cooccurrence patterns holding between adjective and head noun. In some cases there is a lexical or collocational fusion which disallows the adjective from being intensified independently from the noun it modifies, e.g.:

111.	a.	such a far cry	*so far a cry (DW, 88)
	b.	such a terrible coward	*so terrible a coward
	c.	such a mangy cur	*so mangy a cur

As we mentioned at the beginning of this section, the parallels between intensifying so and such are very pervasive. The distribution of so and such is highly predictable. This might lead us to analyze the two forms as rule-governed suppletions, such occurring before NPs and so elsewhere. However, as we will see in Chapter 4, there are reasons that argue against such an analysis.

What is important at this point is to note that there are indeed many parallels in the two forms: they both function as identifiers and as intensifiers; they both take as complements in the identification function and that complements in the intensive function; they are both basically anaphoric in function; they both are limited to indefinite contexts; and they both show almost exact parallels in their

distributions in clause types, depending on whether the clause is asserted or presupposed.

As mentioned, so and such have two basic functions--identification and intensification--but only intensification is directly involved in the analysis of EXTENT. However, the identificational possibility has an overlap in the ability of so and such to occur anaphorically--that is, the anaphoric relationship of an intensive use can always be recovered through the use of an identificational structure. It is just this identificational ability of so and such which allows them to be used anaphorically in intensification, dropping the overt cataphoric that result clauses or the implied result clauses in the exclamatory uses.

Now let us consider one characteristic of so and such which follows from this fact--i.e. the fact that their meanings are dependent on their referents. So and such have no meaning of their own, aside from their functional intensification. They serve only as predicative linkers between assertions of EXTENT and result. This can be seen most clearly if we use such predicatively, i.e. as a predicate in a copular sentence. Predicative such is semantically empty. Any meaning which it conveys is a by-product of other elements in the sentence. Consider this sentence:

112. Harry's skill is such that
{we will hire him. = so good
{we have to fire him. = so bad}

Here it is clear that such itself is neutral in meaning; inherently it has neither boosting nor diminishing qualities. It simply serves as a marker linking subject to complement. In this particular case skill is a semantically neutral word; it can be either good/great or bad/little,

and these meanings are brought out only by the complements. When we use <u>such</u> exclamatorily, as in:

113. Harry has such skill!

then the <u>such</u> has an intensive use, but one which I (and Bolinger, DW, 69) have claimed comes from an implied result clause, e.g.:

114. Harry has such skill!
(that he made all of these beautiful things)
(that he'll easily be able to solve this problem)
(etc. depending on the context)

Of course if the subject of the predication is a word which is rich in associations, then <u>such</u> will transfer these qualities from the subject to the complement, e.g.:

115. a. Her beauty is such that
{ she'll easily win an audition.
{ *she'll never get an audition. }
(cf Her looks are such that
{ she'll easily win an audition.
{ she'll never get an audition.)}

b. His prowess is such that
{ he'll easily survive the trials.
{ *he'll fail the trials. }

c. That trickle of water is such that
{ we'll barely be able to fill our canteens.
{ *it will overflow even the largest dams. }

In each of these cases, the <u>such</u> reflects the normal extensions of the meanings of <u>beauty</u>, <u>prowess</u>, and <u>trickle</u>.

<u>So</u> is fundamentally the same. It too has little semantic value of its own. It acquires its intensive force from its referent and as we have seen time and again, it must have a referent, either anaphorically or cataphorically to occur, and that referent must be intensive.

We are now in a position to see in a somewhat clearer light why intensive <u>so</u> and <u>such</u>, without referents, i.e., without implied or stated degree to refer to, cannot occur in assertive environments--they

have no meaning to assert. They are only linking predicates between EXTENT and result. After the discussion of too and enough, we will return to some of the implications of this fact with respect to the types of complements the various complex EXTENT markers take.

3.11.20. too... and enough...

3.11.21. too...

The major use of the too... construction is to signal the result of an excessive degree of something. However, there are a number of stereotyped uses of too as an intensifier which do not reflect the basic predication. We will not be concerned with them, but they do need to be noted so that it will be clear when the complex too is being used and when not. Consider these examples:

116. a. That's too bad! (= very bad)
b. You're too right!
(= completely right-- chiefly Br. and Australian)
c. Not too bad!
(= either rather good or quite good via litotes)
d. He's too much! (= perhaps ...to be believed)

These uses are clearly derivative from the excessive meaning, but have become largely fused into single lexical units.

For the purposes of our analysis, the most important fact about too is that it does not serve an identificational function; too is used only as an EXTENT modifier. This means that too is not used referentially, and this fact will be of some importance when we begin to compare too with the referential so and such.

Otherwise, the most interesting characteristic of too is that there is a regular correspondence between too...to and so...that. This has been noted by a number of grammarians.[16] This relationship is that the too...to corresponds in regular ways to a so...that-NEG...; that is, a so...that with a negative in the result clause can often be paraphrased by the too...to. Thus too has negative force and a number of concomittant syntactic phenomena follow. Consider these pairs of sentences:

117. a. Max is so dumb that he can't understand this problem.
     b. Max is too dumb to understand this problem.

118. a. The neighbors complained so much that I couldn't keep my pet python.
     b. The neighbors complained too much for me to keep my pet python.

In each pair there is a paraphrase relationship between the two, ignoring the modality for the moment. However there are differences. First of all too...to is often ambiguous between two modalities, while so...that, having a full sentential complement, is not. Consider this sentence and its possible meanings:

119. Max is too young to smoke pot.
     (a. He doesn't smoke pot.)
     (b. He shouldn't smoke pot.)
     (c. He isn't able to smoke pot.)

(a) gives the version of the sentence with no modality expressed, (b) the version with negative obligation, and (c) with negative ability. This ambiguity of modalities has lead Horn (1972, 250) to suggest that too...to should be derived from so...that with a negative in the complement and optional incorporation of the appropriate modals.

However, there are other differences besides modality. There is a difference in the presuppositions associated with the use of so...that and those associated with too...to. The intensifying meaning of the so insures that the head item, whether adjective, adverb or verb, will be taken as implying a high degree which results in the proposition given in the complement. However, if too is used, this implication will not necessarily be present. This can be illustrated by considering the following pairs of sentences and their surrounding discourses:

120. Even if that board is only 3 feet,
   a. it's too long to fit in the Honda pickup.
   b. *it's so long it can't fit into the Honda pickup.

121. I don't care if he is almost well,
   a. he's still too sick to play in the tournament.
   b. *he's still so sick he can't play in the tournament.

122. It's too dark for the camera to take a picture, even though it's not very dark.
   *It's so dark the camera can't take a picture, even though it's not very dark.

In each of these cases, if there is a knowledge or assumption that the degree of something is not really high or intensive, so cannot be used and too can be. Thus the meaning of too is not necessarily intensive, although it may be. It necessarily means only exceeding some limit. The fact that so and too are different with respect to the presuppositions they carry should rule out a derivation of the too...to forms from the so...that forms.

With negatives, the relationship between so and too holds as long as the result predication is available, either referentially or in its overt for...to form. However, if the complement is not overt and the correlation between the negated too and the now positive result are not

given, then the too is not taken as excessive, but only as a simple intensifier, e.g.:

123. a. He's not so old that he doesn't appreciate a little flattery from the ladies.
b. He's not too old to appreciate a little flattery from the ladies.
c. He still likes a little flattery from the ladies; he's not too old.
≠ d. He's not too old.

Without the result either stated or understood, as in (d), the negative version comes to mean something like "He's not very old", i.e. "He's rather young." Thus, without the complement present somewhere, the meaning of the excessive too is neutralized in negative sentences.

Although too is not used referentially, it can occur without its infinitive complement if the complement is clear from prior discourse or context, e.g.:

124. A: You've got to be at least 6'7" to play basketball for the Bruins.
B: Well, I'm afraid I'm too short (to play....).

In the preceding section, we noted that so occurring without its cataphoric clause, could appear only in non-assertive environments, i.e., only in clauses which presupposed the degree to which the so referred or, in the case of if clauses, in clauses in which the assertions were suspended by the conditional. Too differs from so in this respect. It can occur in assertive environments as well as in presupposed environments. To illustrate the latter first, observe these sentences, both of which we established earlier were environments in which the proposition is presupposed:

125. He just couldn't fit into the pants. They were too small for him. I was surprised that they were too small; I had measured them very carefully.

126. When the paint is too thick, you can thin it with linseed oil.

And in assertive environments, too can occur where so cannot, but where other degree modifiers can, e.g.:

127. For this particular post, we need someone who is extremely stable emotionally. Haskins is {*so / too / very} unstable.

128. I had been watching Karl for at least 30 minutes. He was never going to make it past the customs guards. It was obvious that he was {*so / too / very} nervous.

Thus too without an overt complement can occur in an assertive environment, but so cannot. The reasons for this are relatively clear. As we saw, so (and such) are essentially referential in nature; they convey no meaning of their own, except the functional meaning of intensiveness. However, too does have meaning; it predicates excessiveness and negation of whatever is taken to be the proposition of its complement. Thus too can occur in assertive environments because it has a meaning to assert.

Turning now to a discussion of the actual complement of too, the major thing to be noted is that, unlike the that complement of so and such, the infinitival complement of too cannot make an assertion independent of the too. So, for example, the that complement can be questioned via a Tag Question, but the infinitive complement cannot, e.g.:

129. a. John is so angry that Mary can't talk to him, {isn't he / can she} ?

b. John is too angry for Mary to talk to him,

$$\left\{\begin{array}{l}\text{isn't he}\\ \text{*is she}\\ \text{*can she}\\ \text{*should she}\end{array}\right\}?$$

This leads to another difference between so/such and too. Unlike the so...that and such...that construction, the too...to does not allow the complement to be preposed. This can be illustrated by comparing the following sentences:

130. a. Harry's so mad he's going to break the broom over her head.
b. Harry's going to break the broom over her head, he's so mad.

131. a. That new guy is just too inexperienced to handle that job alone.
b. *To handle that job alone, that new guy is just too inexperienced.

132. a. He's too ambitious for me to fully trust him.
b. *For me to fully trust him, he is too ambitious.

And we should note that this follows exactly Hooper and Thompson's prediction about preposed complements; only potentially assertive complements can be preposed. The that complements of so and such make assertions independent of the main clause assertion and can be preposed; the infinitive complement of too cannot make an independent assertion and cannot be preposed.

However, this stricture is relaxed if the complement has been reduced from clause status to phrase status via anaphora. For example, consider the following discourse:

133. A: Ah, come on, Mom. The guys are only going to walk around the Strip for a while.

B: a. You are too young to walk around the Strip.
b. *To walk around the Strip, you are too young.
c. You are too young for that.
You are too young for walking around the Strip.
d. For that you are too young.
For walking around the Strip, you are too young.

While I don't want to get into an involved discussion of so minor a point, this fact seems to me to be related to some observations of Bever (1975, 599) concerning perceptual constraints on subordinate clauses which precede main clause--i.e., that they need to be more highly marked (for example, by having a mandatory complementizer that might otherwise be deletable, etc.) While we are not here dealing with a clause per se, we are dealing with some sort of de-sentential construct. It could be that once a de-sentential construct has been reduced to the phrase or even word level, usually by anaphoric processes, then some of the constraints on subordinations may fall away, since the reduced forms will not provide any particular problems of perceptual processing of linear material, and much of the clausal material is presupposed.

3.11.22. Enough...

Enough has certain stereotyped lexically-fused uses (DW, 49), just as too does, e.g.:

134. a. Sure enough = That's right.
b. Fair enough = OK.
c. Naturally enough = That's only natural.

Enough shows striking parallels with too, except where too implies a negative result, enough implies a positive. In essence too... serves as the negative counterpart of so...that, and enough serves as the

positive counterpart. Thus, we can see close paraphrases in such pairs as:

135. a. He is so tall that he should easily make the team.
b. He is tall enough to easily make the team.

136. a. She is so pretty that she should win the beauty contest.
b. She's pretty enough to win the beauty contest.

A sentence like:

137. Max is old enough to have a job.
a. He has a job.
b. He should have a job.
c. He can have a job.

is ambiguous in the same ways that a similar sentence with <u>too</u> was.

However, like <u>too</u>, <u>enough</u> is quite different from <u>so</u> in the presuppositions that it conveys. As noted, <u>so</u> implies a high degree, intensification. <u>Enough</u> on the other hand usually indicates only sufficiency, neither a high degree nor low, and will often be acceptable where <u>so</u> will not, e.g.:

138. a. I don't care if you are feeling better, you are still {*so sick you require bedrest. / sick enough to require bedrest.}

b. I don't care if you are only 18, you are still {*so old that you can earn your own living. / old enough to earn your own living.}

c. Even if he does have 100,000 hours logged, he doesn't know {*so much that he can land a 747. / enough to land a 747.}

<u>Enough</u>, like <u>so</u> but unlike <u>too</u>, can take a <u>that</u> complement, although it is relatively rare,[17] e.g.:

139. Foyt modified the Dodge enough that it took all the NASCAR trophies.

There is a slight difference in meaning between the <u>for-to</u> complementizer and the <u>that</u> complementizer. The <u>for-to</u> can indicate

intention to cause the result, while the <u>that</u> complementizer leaves open the question of intention, e.g.:

140. a. I visited often enough for my parents to be pleased.
b. I visited often enough that my parents were pleased.

For me there is a considerably stronger sense of intentional action in (a) than in (b).

Like <u>too</u> and unlike <u>so</u>, <u>enough</u> can appear in assertive environments as well as in presupposed ones. Only the assertive ones are illustrated here:

141. In order to get past the customs guards, you had to be very, very cool. I watched Karl very carefully; then I relaxed.
It was obvious that he was { cool enough. / *so cool. }

142. A: I need someone who looks very depressed for this scene.
B: Don't worry; he looks { depressed enough. / *so depressed. }

143. A SALT negotiator had to have a great tolerance for vodka taken straight.
TIME reported that Vance had { a great enough tolerance / *so great a tolerance }.
(cf Gromyko was surprised that Vance had { a great enough tolerance / so great a tolerance })

Presumably the explanation offered for <u>too</u> applies to <u>enough</u> as well. <u>Enough</u> conveys meaning on its own, and therefore it can appear in assertive environments.

Like <u>too</u>, but unlike <u>so</u>, the complement of <u>enough</u> cannot be preposed, e.g.:

144. a. He pitched well enough for the Dodgers to win the game.
b. *For the Dodgers to win the game, he pitched well enough.

145. a. He's mad enough to chew nails.
b. *To chew nails, he's mad enough.

This is exactly parallel to the case with too, and the same explanation presumably accounts for both of them. They don't prepose because they are not independent assertions. And just as we saw with too, if the complement is further reduced to the phrase level, then it can be preposed, e.g.:

146. A: Look, all we need is for someone to sit on that side of the boat to help keep the weight evenly distributed.

B: OK. For that, he's big enough.

And finally, unlike both so and too, when enough is negated without an overt complementizer, its meaning does not neutralize to something like an undifferentiated intensifier, e.g., very. It continues to carry the meaning of sufficiency, e.g.:

147. How tall is your friend?
a. Not too tall. } (= not very tall, rather short)
b. Not so tall. } (= not very tall, rather short)
c. Not tall enough. (= not sufficiently tall for some understood purpose)

148. Does your husband drink much?
a. Not too much. } (= not very much, rather little)
b. Not so much. } (= not very much, rather little)
c. Not enough. (= He should drink more)

This has to do almost certainly with the fact that enough is also a lexical predicate with at least one use which is synonymous with sufficient (ly), whereas so and too are grammatical predicates, having meanings only as part of a larger structure.

3.11.30. A Brief Comparison of So and Such Versus Too and Enough

At this point it is important to review the most important similarities and differences in the various resultative constructions we have been discussing. The central similarity among them is that they are all resultative, and that there are paraphrase relationships which can hold between them. However, we have seen that the paraphrase relationships can be carried only so far. Both too and enough differ from so and such in the presuppositions they convey. Both so and such are always intensive in meaning. Too and enough can be used intensively, but they do not have to be so used. They necessarily mean only excessive and sufficient, respectively.

Furthermore, so and such do not have any independent meanings; the meanings they convey, except for the intensiveness, is entirely an artifact of the stated or implied result of the intensive modification. As we said earlier, so and such serve solely as predicative linkers between EXTENT and the result given or implied. Too and enough, on the other hand, do have independent meanings. When they occur as predicates, they add meaning to the construction rather than simply linking the subject with the complement. Consider these sentences; using such and enough as predicates (so and too cannot be used alone as predicates and thus cannot illustrate this point):

149. Harry's skill is such
{that they will hire him. (= very great)
{that they will fire him. (= very little)

150. Harry's skill is enough
{ to get him hired. (= great enough)
{*to get him fired. (≠ little enough)

In (149) such contributes nothing to the meaning; it simply links skill

with the complement; thus the meaning of skill can be taken as either great or little. However, enough used predicatively contributes meaning and the complement must be consistent with that meaning; in this case enough serves as a degree modifier and boosts the meaning of skill.

The fact that too and enough do have independent meaning is exactly the fact which allows them to occur in assertive environments, where so and such could not. Even without the overt statements of the complements, too and enough still carry their predications of excessiveness and sufficiency.

This contrast between the essentially referential nature of so and such on the one hand and too and enough on the other allows us to see why so and such take full sentential complements and too and enough take infinitival complements. So and such must have full sentential complements, that is, complements which can make the full range of propositions allowed by the language, expressing tenses, modalities, negations, etc. Ans as we noted these complements make assertions which are independent of the main clauses which dominate them. The reason for this is that so and such have no meanings of their own; they are referential and convey only the meanings of the propositions to which they refer. Too and enough have meanings of their own. Too predicates exceed and implies a negative result and two possible modalities: possible and obligation, both of which are negated. Enough predicates suffice and the positive of the same two modalities: possible and obligation. Too and enough are semantically rich; they already carry modalities and negations (in the case of too) in their meanings;

therefore, they do not need the full propositional ability of the full sentential complement.

3.12. The Comparatives and Superlative

Strictly speaking the superlative should not be grouped as part of the comparatives; for reasons which we will examine later, the superlative is different enough from the comparatives to warrant treating it as a separate type of construction. However, because there are some parallels which we will want to call attention to, the superlative is grouped with the comparatives--this is largely for organizational purposes.

3.12.10. The Comparatives

Both of the comparative forms (more/less...than and as...as) differ in fundamental ways from the resultatives. The differences derive from their differing semantic functions: the resultatives assert results or consequences following from some degree of a predicate; the comparatives assert a comparison of degrees of some common element or against some standard for the comparison. Thus the comparative clauses, introduced by than S and as S, must contain some element that is the same as some element in the superordinate clause, or some standard against which the element is compared. This is not true of the resultatives. For example, almost any proposition can serve in the that clause of the so...that construction. All that is required is some possible connection, however tenuous, between the asserted degree and the

resultative clause, e.g.:

151. a. John is so rich that he can't spend all of his money.
b. Mickey Spillane was so tall that Napoleon was defeated at Waterloo.
c. I slept so late that the astronauts landed on the moon.

While (b) and (c) may be more difficult to imagine a connection for than (a), it is not impossible, and the sentences are grammatical. However, this is not true of the comparatives. There must be some element in the <u>than</u> or <u>as</u> clause which can be interpreted as comparable to some element in the superordinate clause, e.g.,

152. a. John is richer than his Uncle Harry.
b. Mary is as pretty as a picture.
c. The river is wider than the lake is deep.

153. a. *John is richer than the astronauts walked in space.
b. *Mary is as pretty as she walked down the street.
c. *The river is wider than the lake is cold.

The sentences in (153) can never be grammatical, because there is no way any of the elements in the second clause can be compared with elements in the first. The statement of just what the restrictions are on compared elements is a full study of its own.[18] We will not be very concerned with the conditions for pairing compared elements, except inasmuch as they are relevant to the central concerns of this study, i.e., in analyzing the manifestations of EXTENT in English, and in noting similarities and differences in the functions, meanings, and structures of the various EXTENT modificational structures. These seemingly trivial observations about the independence of the resultative complements versus the dependence of the comparatives will be seen to have rather far-reaching consequences when the syntax of the two constructions is examined.

3.12.11. more...than, less/fewer...than

For the most part the discussion and examples given in this section will concern the positive excessive comparative more... rather than the negative comparative less/fewer... Unless it is otherwise noted, it should be assumed that the observations which hold for more... hold for less/fewer...

We noted in Section 3.11. that so and such have two basic functions: identification and intensification, i.e., degree modification. The same is true of the comparative. Consider these sentences:

154. a. John is more a philosopher than a linguist.
b. Harriet is more pretty than beautiful.
c. Morgan more fell into second base than he slid.

155. a. John is more of a fool than I expected.
b. Harriet is prettier than Maxine.
c. Morgan slides better than anyone since Wills.

The examples in (155) are straightforward examples of degree modification. The examples of (154) are instances of identification. Consider these paraphrases for the sentences of (154):

154'. a. John is more like a philosopher than a linguist.
b. Harriet is more to be described as pretty than as beautiful.
c. What Morgan did was more like falling than like sliding.

The identifying uses describe something by way of comparison with something else. There is no scaling of EXTENT. If there is scaling, it is on a scale of similarity. The degree use scales the EXTENT of one thing against another.

There has been some confusion in the literature about these two basic functions of the comparative, and it is worthwhile to point out

some problems of previous discussions, in order to emphasize the parallels in identificational uses of the comparative markers alongside the resultative markers.

McCawley (1964) refers to what I have claimed are identificational uses of the comparative as "qualitative" comparison and the degree uses as "quantitative" comparison.[19] It will become clear that these characterizations are inadequate in a number of ways. McCawley claims that there are several differences in meaning and syntax. First of all, the meaning of the qualitative is rather than instead of more than. Secondly, he claims that the qualitative comparison doesn't allow the -er comparative, e.g.:

156. *John is sicker than depraved.

Qualitative comparison never allows the more to occur in adjective position (i.e., between a determiner and the head noun) in an NP, e.g.,

157. *John is a more stupid man than ignorant.

Qualitative comparison relates singular predicate nominals to one another in a way not allowed in the quantitative sense, e.g.:

158. John is more a philosopher than a linguist.

And finally, according to McCawley, the qualitative cannot be used to answer questions about the comparison, e.g.:

159. How stupid is John?
He's very stupid; *he's more stupid than ignorant.

While it is true that there are differences in the comparative types, McCawley's analysis of the differences is deficient in all instances. First of all the meaning of the 'qualitative' comparison is not limited to rather than, although this is one of the meanings.

Consider these sentences:

160. a. How was the speech?
Well, it was more a Jeramiad than a speech.
b. How was that dive? Well, he more fell than dove.
c. How angry was she?
Well, she was more distressed than angry.

In each of these cases a paraphrase using more like seems more accurate than rather than. Rather than divides a comparison into two discrete characterizations, and it is possible to give such a reading to sentences like those in (156), e.g.,

161. a. It was a Jeramiad rather than a speech.
b. He fell rather than dove.
c. She was distressed rather than angry.

However, the intention of the sentences in (160) seems to characterize something as being more similar to one thing than another, in effect establishing a continuum of a given description and characterizing some description as being more on one end on the continuum than the other. In the case of a sentence like:

John is more tall than intelligent,

the reason for the rather than reading instead of a more like is that tallness and intelligence don't share a semantic scale and thus there is only the possibility of one scale against another, whereas Jeramiad/speech, fall/dive and distress/anger are all descriptions that share a semantic scale: a Jeramiad is a certain kind of speech; a dive is a certain kind of fall; anger and distress are both negative emotions. No doubt, depending on the predicate, this distinction is gradient and some predicates will be easily ambiguous as to the proper paraphrase, e.g.:

162. She is more a gossip than a spy.

Here it is difficult to decide if rather than or more like is meant

because gossiping and spying are both alike and different in qualities; gossiping is reporting something, as in spying; but spying is a conscious undercover activity, while gossiping is not. So they are alike in some ways--hence the more like reading; and they are different in other ways--hence the rather than reading.

Contrary to McCawley's claim, the -er comparison can be used if the than clause is left unreduced, e.g., compare:

163. a. *John is sicker than depraved.
b. John is sicker than he is depraved.

164. John is smarter than he is wide, and he's very wide.

165. Alice is prettier than she is intelligent.

This is a result of the fact that if the predications compared are not perceived as being on the same scale, then it is necessary for the complete comparative clause to be used; it can only be reduced if the predications are parallel semantically.

The occurrence of the more in adjective position in the NP can be improved on two accounts. If the than clause is left unreduced, the sentence becomes better (totally acceptable to me), e.g.:

166. a. *John is a more stupid man than ignorant.
b. ?John is a more stupid man than an ignorant one.
c. John is a more stupid man than he is an ignorant one.

And the sentence is even better if the adjective so compared has an unstressed first syllable,[20] e.g.:

167. a. ?He's a more {foólish / ódd} man than an ignorant one.

b. He's a more ŭmpúlsive man than a thoughtful one.

c. He's a more ĕccéntric person than a crazy one.

McCawley's claim that the 'qualitative' comparative cannot be used to reply to a question about degree is also incorrect. It can be so used if it is used to contradict the assumption behind the question, e.g.:

168. How stupid is John?
Well, actually he's more forgetful than stupid.

And finally McCawley's claim that the 'qualitative' comparison links predicate nominals in ways not allowed by the quantitative, is seen to be incorrect when we use degree predicate nominals instead of non-degree nouns, e.g.:

169. a. John is more a philosopher than a linguist.
b. Milton is more a fool than a clown.
(= more foolish than clownish)
c. Max is more an ass than an asset.

It is clear that in the (b) and (c) examples, while the nouns are predicate nominals, they are performing precisely like adjectives and that these predicate nominals are being 'linked' in precisely the same way any adjectives would be linked in a so-called 'quantitative' comparison.

Considering all of this it is clear that McCawley's characterization of the differences between the two senses as <u>qualitative</u> versus <u>quantitative</u> is inaccurate. What he calls <u>qualitative</u> doesn't in fact refer just to qualities, but really to <u>identification</u>, the identifying of something as <u>more like</u> one thing than another; whether this is with reference to a quality or not is dependent on the things compared. Thus McCawley's example,

John is more tall than intelligent.

is about John's qualities, but when we look at other types of

predications, it is clear that they are not limited to qualities at all, but rather a larger notion of things being more similar in any number of different characteristics, e.g.:

170. a. John was more angry than hurt.
b. Mary more fell than she dove.
c. Sarah cried more from fear than pain.

It is difficult to see how these comparisons are "qualitative" rather than any number of other possible attributes which might name them.

Similarly, McCawley's use of the term quantitative for the second type of comparison implies that all types of this comparison have to do with quantity. In his particular example,

John is taller than Max.

it is of course quantity because of the measure adjective tall being the basis of the comparison. However, as we have seen many times, comparison is not limited to quantity. Things may be compared concerning any of their attributes; this is of course seen most easily in non-measure degree words modified by comparison, e.g.:

171. a. This pencil is sharper than that one.
b. Max is nicer than Sam.
c. His right eye had reddened more than his left one.
d. The doctor worked more feverishly than I expected.

none of which is taken to mean quantity.[21]

In fact the differences are exactly parallel to the differences we saw in our discussion of the identification and intensification uses of such and so in section 3.11. There we saw that such and so served identificational uses as in sentences like:

172. a. Such a watch as they advertised in the paper probably is really expensive. (NB: A watch like that...)

b. I'd sure like a watch which was so watertight as the one they were advertising.

Here the uses are primarily identificational, although the so use is also intensive. Exactly the same thing is true in the so-called 'qualitative' type comparatives. To say:

173. a. John is more tall than intelligent.
b. He's more a drunk than a social drinker.

is to assert that something is to be identified as more like one attribute than another. There is no degree modification. This is exactly parallel to the identification use of such above. And almost certainly, it is no coincidence that in both cases the identifications can be paraphrased by like--like that in the case of such and by more like in these cases. Thus we have already established one similarity between the resultatives and the comparatives--they both have identificational uses as well as degree modificational uses.

Turning now to a discussion of the degree comparative, we note first of all that there are a number of apparent comparative constructions which have lost most of their comparative force, e.g.:

174. a. I'll see you later. (later than now?)
b. Oh well, that's the younger generation. (younger than ours?)
c. The monster came from the lower depths. (cf *higher depths)
d. Nearer my God to Thee. (nearer than before?)

And there are comparative forms which are more like superlatives than comparatives, e.g.:

175. a. Harriet is the crazier of the two girls.
b. Max is a richer man than was ever supposed.
c. That's a nicer Martha Washington than I've ever seen before.

These will be discussed more at length in the section on superlatives.

Turning now to the uses and distributions of the comparatives, we see that, like the other complex degree modifiers, the comparative can be used without the overt presence of the comparison indicated by the <u>than</u> clause, if the standard of the comparison given in the complement is available from prior discourse or from assumptions, e.g.:

176. a. Harry's quite tall, but Sam's taller.
b. Nancy likes to dress up, but Judy likes to even more.
c. Max is a good end, but he could be faster.

However, there are restrictions on the occurrence of the compared form without its complement.

It can easily occur in the positive imperative, where the context of the command makes clear just what the implied comparison is, e.g.:

177. a. Stand up straighter! (cf *Stand up so straight!)
Stand up very straight!)
b. Please speak more slowly! (cf *Speak so slowly!)
Speak very slowly!)

However, it doesn't occur easily in negative commands. In order to occur, the actual comparison has to be very explicit. Contextless examples always seem ungrammatical, but if an appropriate context is provided they are conceivable, e.g.:

178. a. *Don't be crazier! (cf Don't be crazy!)
Don't be so crazy!)
b. Your brother is crazy enough; don't you be crazier!
c. I don't care if they can't keep up.
Don't walk more slowly!

The comparative without the complement is like <u>too</u> and <u>enough</u> and unlike <u>so</u> in its ability to occur in the complements of various kinds of predicates. The comparative doesn't have any restrictions in the types of complements where it can occur; it can occur equally in the

complements of factive and non-factive predicates, e.g.:

179. a. Max was smart, but it was obvious {that Sam was smarter / why Sam was smarter}

b. Max {resented / supposed} that Sam was smarter.

Just as was true with <u>too</u> and <u>enough</u>, <u>more</u> can occur in an assertive environment because it has meaning of its own. It predicates <u>exceed</u>.

When we look at the full comparative construction, with an overt <u>than</u> clause (or a reduced version of the clause), we can see that it is quite different from the <u>so...that</u> construction in one fundamental way. The <u>so...that</u> construction contains two propositions: the main one asserting the degree that produced the result and the proposition of the complement itself. As we saw in Section 3.11.11. this is evidenced by the fact that both clauses can be questioned via a Tag Question; this is not true of the comparative construction, e.g.:

180. Max was so nasty that I had to hit him, {wasn't he / didn't I} ?

181. Max is nicer than I expected him to be, {isn't he / *didn't I} ?

Similarly, it is possible to have an independent negative in the resultative clause, but it is not allowed in the <u>than</u> clause of the comparative (Lees, 1961, 306-7),[22] e.g.:

182. a. Harry's so rich he'll never be able to spend his money.
b. Sam ran so fast that the others couldn't catch him.
c. The actors whispered so, that we couldn't hear them.

183. a. Harry's richer than I'll {ever / *never} be.
b. *Sam ran faster than the others couldn't.
c. *The actors whispered more than they didn't the night before.

184. The chairman was

$$\left\{\begin{array}{l}\text{so busy that he forgot to call the police}\\ \text{busier than I } \left\{\begin{array}{l}\text{remembered}\\ \text{*forgot}\end{array}\right\} \text{ him as being}\end{array}\right\}.$$

In fact, this is just one manifestation of a larger restriction on assertions in the <u>than</u> clause. It seems to be the case that any assertion independent of the assertion in the superordinate clause is not allowed. Thus, assertion of degree is ungrammatical, e.g.:

185. a. *John is taller than Harry is <u>very</u> tall.
b. *John is really more stupid than he is <u>very</u> ignorant.
c. *Max likes ravioli more than Sam <u>really</u> likes spaghetti.

A grammatical modal can be used only if it is an <u>ability</u> modal or a repetition of a modal in the superordinate clause, e.g.:

186. a. John was nicer than Max $\left\{\begin{array}{l}\text{could}\\ \text{*must}\\ \text{*should}\end{array}\right\}$ be.

b. Harry loves Louisa more than Max $\left\{\begin{array}{l}\text{can}\\ \text{*must}\\ \text{*should}\end{array}\right\}$.

The comparative conditions INC polarity in the <u>than</u> clause (Lees, 1961, 307), e.g.:

187. Max drives more carefully than Sam $\left\{\begin{array}{l}\text{*always}\\ \text{ever}\end{array}\right\}$ does

But this is not true of the resultative, e.g.:

188. Judy was driving so slowly that $\left\{\begin{array}{l}\text{some}\\ \text{*any}\end{array}\right\}$ of the other drivers were passing her on the right.

There is one additional peculiarity about the comparative construction. As we noted above, there aren't any particular restrictions on the occurrence of the comparative in the complements of different predicate types. However, there <u>are</u> restrictions on the types of predicates which can occur in the <u>than</u> clause. Non-factives

can occur in the than clause but factives cannot, e.g.:

189. a. Max turned out to be smarter than we had supposed him to be.
b. Sam jumped higher than I believed possible.
c. Mary was actually madder than it seemed she was.
d. The old car was even more of a bomb that it appeared to be.

190. a. *Max turned out to be smarter than I resented (him to be)
b. *Sam jumped higher than I regretted.
c. *Mary was actually madder than it was odd she was.
d. *The old car was even more of a bomb than it was strange it was.

However, non-factive verbs of saying,[23] which only report an event or proposition are allowed, while those which also assert an opinion are not allowed, e.g.:

191. a. The fire had burned more fiercely than the investigator had reported (that it had).
b. Juliet loved Romeo more than she said that she did.
c. The man was even more of an idiot than she claimed he was.

192. a. *The fire burned more fiercely than it was true it had.
b. *Romeo loved Juliet more than he was certain he did.
c. *The man was more of an idiot than it was sure he was.

And finally, the class of predicates which Kartunnen (1971) has labelled 'semi-factives' (those which are factive in declaratives, but not in conditionals and questions) can occur in than clauses, e.g.:

193. a. Mary was madder than we realized.
b. Sam thought more slowly than we knew.
c. The task turned out to be more of a job than we had recognized.

The reasons for these restrictions on what can occur in the than clause will be discussed at some length in Section 3.12.30, after we have looked at parallels in the equative comparative with as.

One last observation about the comparative construction is in order. Unlike so...that and like too and enough, the complement in the comparative cannot be preposed to the beginning of its main clause, e.g.:

194. a. John is taller than Max.
b. *Than Max, John is taller.

195. a. Romeo likes his new Honda more than he likes Juliet.
b. *Than Romeo likes Juliet, he likes his new Honda.
c. *More than Romeo likes Juliet, he likes his new Honda.
d. *More than Juliet, Romeo likes his new Honda.

196. a. Copernicus was more intelligent than he was brave.
b. *Than Copernicus was brave, he was more intelligent.
c. *More than he was brave, Copernicus was intelligent.

As we have noted, the than clause cannot be independent of the superordinate clause containing the comparative more; the than clause cannot make an independent assertion. Thus, once again, we see that only clauses which can make assertions can be preposed.

3.12.12. As...as

The comparison of equality is like the comparison of inequality in most particulars, although we will see that there are significant differences arising from their different semantic/logical functions.

There are certain as...as constructions which should not be regarded as examples of equative comparison, e.g.:

197. a. He as much as admitted his guilt.
(= ...practically admitted...)
(cf *He much admitted his guilt.)
b. ≠ He admitted as much as his guilt.
(this is true comparison)

198. a. He came over as soon as I called.
b. As soon as I called, he came over.
c. = He came over immediately I called. (British usage)
d. = He came over when I called.
(British and American usage)

199. a. Mary is all right as far as I know.
b. As far as I know, Mary is all right.
c. = To the best of my knowledge, Mary is all right.

In (197) the as...as is probably best taken as a phrasal degree modifier roughly equivalent to practically. In (198) and (199) they are probably best thought of as phrasal adverbs:[24] as soon as being a phrasal temporal relative and as far as an adverb meaning something roughly equivalent to with respect to, perhaps more clearly illustrated thus:

200. a. As far as this new plan goes, I think we can expect success.
= b. With respect to this new plan, I think we can expect success.

Just as with more, there is an identificational use of as in identifying qualities or attributes not on the same semantic scale. Much is required with as with verbs and nouns and optionally (at least for me) with adjectives. The restrictions concerning reduction of the complement which held for more also hold for as, e.g.:

201. a. John is as (much) sick as he is depraved.
b. *John is as (much) sick as depraved.

202. a. She as much fell as she dove.
b. ?She as much fell as dove.

203. a. He's as much a linguist as he is a philologist.
b. ?He's as much a linguist as a philologist.

And like more than there is a paraphrase with like, e.g.:

204. He's as much like a linguist as he is like a philologist.

In this type of construction, we saw with more that there was a rather than reading possible as well as a more than reading. This is

not true with as, presumably because of its equational nature; it cannot discriminate one quality from another.

As was true with more, there is also a superlative use of as, although because of the equative nature of as, the superlative is not as obvious. Consider these sentences:

205. a. Sam's as capable as anyone else in the camp.
b. That doctor's as much a quack as any of the others.
c. That woman drove as carefully as any I've ever examined.

The syntactic proof that these are superlative uses can be found in the fact that there is INC affect in the complement clause, and if it isn't used, there is a difference in meaning, e.g.:

206. a. Sam's as capable as {anyone / someone} else in the camp.

b. That woman drove as badly as {anyone / someone} else I've examined.

In the sentences with the INC affect, the meaning of the comparison clause is parallel in use to the superlative, while the versions without the INC affect are really equative in nature.

When we discussed so and such, we discussed the intensive uses and their relationships to the identificational as clauses. The as clauses, used identificationally, allowed us to recover anaphoric uses of intensive so and such. It is precisely at this point that the resultatives and the comparatives overlap structurally. The anaphora for intensive so can be recovered by either a so...as or an as...as construction, depending on the intention, although this distinction is

probably on its way out of the language. Consider these sentences:

207. A: I saw a great watch advertised in the Gazette. It was guaranteed to be water-tight down to 100 feet.

B: I really need a watch {?so / as} water-tight as that.

Here, even though the meaning may be intensive, as is probably the more usual form. However, if the meaning can be made clearly enough intensive, then so improves, e.g.:

208. A: Why'd you go and spend $250 on a watch guaranteed waterproof down to 100 feet? You need that like you need another hole in the head.

B: I need one {so / as} watertight as that because I'm now diving down around 80 feet.

Here both so and as are all right for me, although so is even better if the as that identification is left out. However, there is no semantic distinction.

With the negative we find a similar situation, e.g.:

209. By the end of the war, there was money in the bank. That was just as well, for business was never again {so / as} brisk.

- so version from Ronald Johnston (British writer) The Angry Sea

British literary tradition frowns on the use of as rather than so after a negative.[25] However, American usage has gone almost completely to as in the negative.[26] I presume that at least part of this is due to the fact that we noted in Section 3.11.11, that not so tends to neutralize the intensive meaning; e.g., He's not so tall usually means something more like He's not very tall, which in turn means He's a bit

short, via the use of the reversal negation discussed in Section 2.12. of Chapter 2.

Turning now to a discussion of the degree uses of as, we find that just as with the other complex degree modifiers, as can be used without an overt complement if the meaning is clear from prior discourse or understood from context, e.g.:

210. A: Frazier can stuff a basketball from a standing jump.
B: Reed can jump just as high.

211. A: Your husband is a damn fool!
B: Well, yours is just as much of one.

Because of its equative nature, as doesn't show quite as many restrictions in the complement clause as more. Some of the same restrictions hold, but some do not. We noted that with more, there could not be a negative in the than clause. However, under certain circumstances as will allow a negative in its complement, e.g.:

212. Martha is as good at bridge as John is not.
(cf *...better at bridge than John is not.)

213. His mind is as open as hers isn't.
(cf *...more open than hers isn't.)

214. *Max is as tall as Sam isn't.

(214) illustrates at least one of the possible constraints on this type of construction. What is negated in the complement must allow for some alternative reading to be acceptable. Thus in (213) to say his mind is not open implies that it is very closed, and the comparison between open and closed is allowed, both in the more and the as constructions, e.g.:

215. a. His mind is more open than hers is closed.
b. His mind is as open as hers is closed.

But there is no alternative reading for the complement in (214). We can't say Sam isn't tall, meaning he is short, because tall is a measure adjective and doesn't mean tall, but is simply a descriptor of the type of measurement. If we substitute short for not tall in (214), we can get an acceptable reading, e.g.:

216. Max is as tall as Sam is short.

meaning that the degree, whether large or small holds for both; if Max is very tall, Sam is very short, and vice versa.

The comparative more conditions INC affect in the than complement, but the equative as does not (except in the superlative use already noted), e.g.:

217. a. Max is driving as carefully as Sam $\left\{\begin{array}{l}\text{always}\\ \text{ever}\end{array}\right\}$ does.
b. Max is driving more carefully than Sam $\left\{\begin{array}{l}\text{ever}\\ \text{*always}\end{array}\right\}$ does.

The complement of the as construction allows the full range of modals, unlike more, e.g.:

218. a. I'll be as diplomatic as I $\left\{\begin{array}{l}\text{can}\\ \text{must}\\ \text{have to}\end{array}\right\}$ be.
b. I'll be more diplomatic than I $\left\{\begin{array}{l}\text{*can}\\ \text{?must}\\ \text{have to}\end{array}\right\}$ be.

The restriction on the occurrence of various types of predicates in the complement clauses is approximately the same for both as and more. Factives cannot occur in the as clause just as they could not in the than clause, e.g.:

219. a. *Max turned out to be as smart as I resented (him to be).
b. *Sam jumped as high as I regretted (he would).
c. *Mary was actually as mad as it was odd she was.

d. *The old car was as much of a bomb as it was strange it was.

Non-factives predicates of saying or reporting are allowed if they only report, but those which also assert truth or certainty, are not allowed, e.g.:

220. a. The fire burned as fiercely as it had been reported.
b. Romeo loved Juliet as much as they said.
c. The man was as much of an idiot as it was rumored.

221. a. *The fire burned as fiercely as it was true it had.
b. *Romeo loved Juliet as much as it was certain he did.
c. *The man was as much of an idiot as we were sure he was.

The semi-factives, which could occur in the than complement of more can also occur in the as complement, althought it is necessary to make the meaning a past prediction via a perfect aspect rather than a description of a current state of mind, viz.:

222. a. *Mary was as mad as we realized.
b. Mary was as mad as we had realized she would be.

223. a. *The task was as much of a job as we recognized.
b. The task was as much of a job as we had recognized. that it would be.

We will discuss all of these restrictions in Section 3.12.30, where we will view them in comparison with similar restrictions in the comparative and some similar restrictions in the superlative.

And finally, just as was true with more (and too and enough), the complement of the as...as construction cannot be preposed, e.g.:

224. a. John is as tall as Max.
b. *As Max, John is as tall.

225. a. Romeo likes his new Honda as much as he likes Juliet.
b. *As much as he likes Juliet, Romeo likes his new Honda.
c. *As he likes Juliet, Romeo likes his new Honda as much.

226. a. Abelard was as intelligent as he was amorous.
b. *As he was amorous, Abelard was as intelligent.

Once again, this follows the pattern we have seen repeatedly. Only potentially assertive clauses can be preposed. The as subordinate clause in the as...as comparison cannot make an assertion independent of the superordinate clause. Thus it cannot be preposed.

3.12.20. The Superlative

The superlative has long been treated as grammatically parallel to the comparative.[27] This is due at least in part to the morphological paradigm of Ø, -er, -est, e.g.:

small	smaller	smallest
soon	sooner	soonest

which is still evident in the almost completely suppletive forms:

good	better	best
bad	worse	worst

and of course in the comparative and superlative lexical forms: more/less, most/least.

However, when we begin to examine the comparative and the superlative from the viewpoint of both function and syntactic behavior, we will see that they are at least as different as they are similar. Jespersen says in this respect that:

> The superlative does not indicate a higher degree than the comparative but really states the same degree, only looked at from a different point of view. (1933, 22).

This is true, but it tends to stress the similarities of the two constructions rather than point out their differences. And the differences may prove to be more important from the viewpoint of

of understanding the two types of constructions than the similarities.[28]

The primary difference in the two constructions is that the comparative compares two different things with respect to a variable, while the superlative compares one thing with a set of the same things with respect to a variable. For example, consider these sentences:

227. a. Max sings as well as Sam.
b. Max sings better than Sam.

Here we are comparing the two men with respect to the quality of their singing. (227.a) says something like: with respect to the quality of their singing, Max's is equal to Sam's; (b) asserts Max's exceeds Sam's. However, now consider a superlative version of such a sentence:

228. Max sings best. (of all the people who sing/ are singing/ singing here/etc.)

(228) says something like: With respect to the quality of their singing, Max's exceeds all of the specified (or understood) set of people singing.

Thus, the superlative is like the excessive comparative in that it predicates <u>exceed</u> for the compared items; it is different in that the superlative always implies a comparison with a universally quantified set, while the comparative usually does not. although it can, as we saw earlier in the discussion of superlative-type comparatives.

From this initial difference, several major differences, in both function and form arise. First of all, the comparatives can compare against a discrete unit of measurement, but the superlative cannot, e.g.:

229. a. Max is as tall as 6 feet.
Max is (at least) 6 feet tall.
b. Max is taller than 6 feet.
c. *Max is the tallest of 6 feet. (*...of all 6 feet)

(229.c) of course fails because a discrete unit cannot be a set.

Since the superlative always implies a universally quantified set of comparison, it can occur non-referentially, carrying as it were its own reference with it.[29] By this same token the obligatory definite article which accompanies the superlative is not an anaphoric definite, but a cataphoric one, referring only to the referential set of the comparison, whether stated overtly or not. Thus, compare these sentences:

230. Max is the best panhandler in Venice.

231. a. *Max is the better panhandler in Venice.
     b. *Max is a better panhandler in Venice.

232. a. *Max is the as good panhandler in Venice.
     b. *Max is as good a panhandler in Venice.

(230) establishes a definite description without anaphoric reference; it could be used discourse initially. However, the comparatives of (231.b) and (232.b) could not be used discourse initially; they could be used only in the context of a referent for the complement and then only with the indefinite article, e.g.:

233. A: Sam's really been pulling in the money. I'll bet he's the best panhandler in Venice.

     B: Yeah? Watch Max. {He's a better panhandler. / He's as good a panhandler.}

Unlike the other complex modifiers we've examined, it is not clear exactly what the complement (or complements) are for the superlative, if there <u>are</u> any obligatory complements in the sense that we've seen with the others. Consider these sentences:

234. a. This is the most accurate calculator I've ever used.
     b. This is the most accurate calculator made in the US.

c. This is the most accurate calculator that Hewlett-Packard makes.
d. This is the most accurate calculator that is on the market.

These could all be taken to be derived from relative clauses of some sort, but if so, it is clear that they are relative clauses of a very special kind. First of all they are necessarily associated with the superlative element in the superordinate clause, e.g.:

235. *This is the accurate calculator $\left\{\begin{array}{l}\text{made in the US}\\ \text{that H-P makes}\\ \text{is on the market}\end{array}\right\}$.

Secondly, the relativized item is extremely difficult to state, e.g.:

236. a. ?Hewlett-Packard makes calculators of X accuracy.
b. ?Calculators of X accuracy are on the market.

The best paraphrase seems to be a universally quantified set, followed by a relative clause-looking structure, e.g.:

237. a. of all of the calculators that Hewlett-Packard makes Ø.
b. of all of the calculators that are on the market

And of course it is obvious that if there is an indefinite in the clause it will take the INC polarity form, as in (234.a).

Because of the different status of the complement of the superlative, it is not clear that the restrictions on predicate types which can occur in the complement of the comparatives even apply with the superlative.

However, there are restrictions on modalities in the complement. Only the possibility modal can occur in the complement of the

superlative, e.g.:

238. a. Sally will act the nicest that she $\left\{\begin{array}{l}\text{can}\\ \text{?may}\\ \text{*should}\\ \text{*must}\\ \text{*has to}\end{array}\right\}$.

b. Please make this knife the sharpest that you $\left\{\begin{array}{l}\text{can}\\ \text{*may}\\ \text{*should}\\ \text{*must}\\ \text{*have to}\end{array}\right\}$.

c. I hope Max will be on the best behavior he $\left\{\begin{array}{l}\text{can}\\ \text{*should}\\ \text{*must}\\ \text{*has to}\end{array}\right\}$ muster.

We will discuss these restrictions in the next section, where we will look at the excessive comparative, the equative comparative, and the superlative, with respect to the various restrictions which hold in their complements.

The superlative acts like the comparatives in not allowing the preposing of complements. If the complement is a clause, it cannot be preposed; however, if it is a phrase with the quantifier given or implied, it may be preposed, e.g.:

239. a. That's the sharpest knife that I've ever seen.
b. *(That) I've ever seen, that's the sharpest knife.
c. Of all of the knives I've ever seen, that's the sharpest.

240. a. Mean Joe Green played the best game of his career today.
b. *Of his career, Mean Joe Green played the best game today.
c. Of the games of his career, Mean Joe Green played the best today.

This is one further illustration of the restriction against the preposing of clauses which do not make independent assertions.

3.12.30. Comparing the Comparatives and Superlative

Just as we did with the resultatives, it is valuable to try to take an overview of the comparatives and superlatives, noting similarities and differences. Turning first to a comparison of the more and the as comparatives, we note that they have a number of things in common and some things in contrast. They share similar restrictions on negatives, assertions of degree and factive predicates occurring in their complements. Why should this be so?

The reason seems to lie in the basic logical function of the comparative, whether of equality or inequality. Both more and as compare one thing against another. This is most easily seen in the direct comparison of a quality against a discrete measurement, e.g.:

241. a. John is taller than 6 feet.
b. The rope is as long as 20 feet.

Now, note that we can scale the more and as predications, but we cannot scale the unit of comparison, e.g.:

242. a. John is almost taller than 6 feet.
b. *John is taller than about 6 feet.
(cf OK He's about 6 feet tall.)

243. a. The rope is almost as long as 20 feet.
b. *The rope is as long as approximately 20 feet.
(cf OK It's approximately 20 feet long.)

This makes clear that the comparison wants the standard of the comparison to be fixed and immutable (perhaps grammatically and psychologically equivalent to keeping a platinum meter bar as the International Standard of Measurement). Syntactically this means that any element in the complement which changes it from this static state will tend to create ungrammatical sentences. Thus, if assertions

occurred in the complement clause they would be changing the status quo of the standard and would not be allowed. This would account for the failure of the negative and any other EXTENT modification to occur in the complement clause,[30] e.g.:

244. a. *John is taller than Max isn't.
b. *Max likes ravioli better than Sam doesn't like spaghetti.
c. *The rope is as long as the bar of steel isn't.
d. *Harry sings as well as Martha doesn't play the piano.

245. a. *Max likes ravioli better than Sam really likes spaghetti.
b. *Harry sings as well as Martha really plays the piano well.

This restriction on assertions in the complement is related to a fact that we noted very early in the discussion in section 3.12.10--that while so and such allowed independent assertions to be made in their complements, the comparatives did not; there is only one assertion in a comparison--the assertion of the main clause, and as we can see this restriction holds also for negation and degree assertions in the complement.

This restriction on assertions in the compared clause also explains why verbs of saying or reporting are allowed in the compared clause but predicates which assert truth or certainty are not. Consider these examples:

246. a. Max was angrier than the Post reported.
b. Sam was as sick as his wife said.

247. a. *Max was angrier than it was certain he was.
b. *Sam was as sick as it was true he was.

Predicates like report and say do not make assertions, and they are allowed in the compared clause. But predicates like true and certain

make assertions and they are not allowed.

This is indirectly related to another interesting restriction found in the complements of the comparatives. Neither more nor as will allow a factive predicate in the complement. This at first mystifying restriction makes sense once we note what the different types of predicates are doing. The comparative asserts a scalar value that equals or exceeds (as and more respectively) some standard scalar value against which it is being compared. The factive predicate can only be used if the speaker assumes that the complement of the factive is true. Thus a person saying either:

248. a. I regretted that Max was 6'6 tall.
b. I was surprised that Max was smart enough to win a Rhodes.

can do so in good faith only if he believes in the truth of the complements. Thus we say that the complement of a factive predicate is presupposed to be true. If a factive occurs in the complement of a comparative, as in:

249. a. *Max was taller than I resented.
b. *Max was as smart as I was surprised he was.

logically, there would be two conflicting things going on. The standard of comparison given in the complement would be presupposed to be true as stated, but the comparison would be asserting that it had a value different from the one presupposed, i.e., either exceeding or equalling the value given in the standard. Presumably, one can't presuppose one value and assert another at the same time.

Looked at from this point of view, the equative as should be better, at least logically, than the excessive more, since as would only be

asserting the same or an equal value. Yet in fact they don't appear to be any better at all, e.g.:

250. a. *Mary was as pretty as I resented.
b. *Max jumped as high as we regretted that he would.
c. *The car was as much of a wreck as it was strange it was.

This appears to be a pragmatic restriction rather than a strictly logical one. If one said: I resented that Mary was pretty, one would of necessity be assuming the truth of the complement, i.e., that Mary was pretty. Then if one were to say *Mary was as pretty as I resented, one would be asserting that Mary was equally pretty as one already presumed she was. This would be at best a strange thing to say. Since there seems to be no logical explanation for why this might be bad, it seems best to explain it as being rejected on pragmatic grounds.

Turning now to a comparison of both comparisons and the superlative, we need to examine their behavior in two related and overlapping areas. We have noted up until now rather haphazardly that there are various constraints on both modals and indefinites when they occur in the complements of comparatives and superlatives. Thus far, however, we haven't done anymore than simply list the occurrences in each case. We now need to see if we can see more of a pattern across the types. Basically, the following chart illustrates the distribution of each of the EXTENT types and the cooccurrence patterns with the various modals and indefinites. (NB: I've used only the ever/always indefinites to show the pattern rather than some/any,

because of the confusion in superlative uses of the more and as types):

Type:	modal	modal predicate	indefinite
as...as	can should have to must	possible obligatory necessary	ever always
more...than	*can should have to must	*possible obligatory necessary	ever *always
the most...	can *should *have to *must	possible *obligatory *necessary	ever *always

The modal distributions for as and more can be explained with respect to the meanings they predicate. As means equal, more means exceed. Thus we can say something is equal to what is possible, or obligatory, or necessary. However, we cannot say that something exceeds what is possible. That is a logical contradiction. On the other hand, it is perfectly acceptable to say that something exceeds what is obligatory or necessary. Both necessary and obligatory presuppose possible. This can be shown by the fact that possible can be suspended by necessary and obligatory, but not vice versa, e.g.:

251. a. It is possible that I will attend the meeting, even if it is not {necessary / obligatory} for me to attend.

b. *It is {necessary / obligatory} for me to attend that meeting, even if it is not possible.

Thus to say something exceeds what is necessary or obligatory presupposes that it is possible and does not assert that it exceeds the possible.

It is more difficult to explain why the superlative should be restricted in not allowing the obligatory and necessary modals in its complement. For purposes of discussion, consider this sentence:

252. That evening John acted the nicest that it was $\left\{\begin{array}{l}\text{possible}\\ \text{*necessary}\\ \text{*obligatory}\end{array}\right\}$ for him to act.

To assert the superlative nicest in such a sentence must assume that the course of action was open, subject to volition. One could not assert the superlative if it were not a possible course of action. This presumably explains why the possible modal is all right. By the same reasoning then, it is logically contradictory to be asserting an act of volition and at the same time indicating that the act was necessary or obligatory. Thus the unacceptability of the necessary and obligatory modals (including must and should). I am reasonably sure that there is a good bit more analysis both possible and necessary in order to fully explain these restrictions. I only hope that I may have highlighted the problems and perhaps pointed in the direction of some possible solutions.

I have no explanations for the distributions of the indefinites with the various comparative and superlative forms. Any explanation of why these distributions obtain must await a much fuller understanding of the full range of occurrences of the various indefinites and the semantic conditions governing those occurrences.

3.13.0. Similarities Across the Complex Types

In the discussion thus far, EXTENT has been treated as falling basically into two categories; the resultative and the comparative (including the superlative). The reasons for this have been obvious--each type reveals a number of syntactic and semantic similarities which make it clear that they are related. From time-to-time similarities across the two types have been noted, but the comparisons have not been systematic. There are a number of similarities which obtain across the syntactic division that the division tends to hide. These similarities are functional, syntactic, and semantic.

At the most obvious level is the functional similarity in the constructions. This is most obvious when the constructions are used hyperbolically, where a resultative, a comparative, and a superlative may be used hyperbolically to achieve the same effect. Consider these:

253. a. That fellow's so buck-toothed he could eat watermelon through a picket fence.
b. That fellow's more buck-toothed than a pitchfork.
c. Why he's the most buck-toothed fellow in this county, except maybe for his daddy.

In each of these cases, what is being asserted is simply some high degree of buck-toothedness, and the literalness of any of the complements is quite beside the point; the choice is made depending on the imagination of the user and the audacity of the hyperbole.

Nor is this use confined to what we would normally think of as the more intensive of the modifiers. Compare these hyperboles with what normally would be thought of as non-intensive degree modifiers:

254. a. I want you guards and tackles to open up a hole <u>big enough</u> for me to drive a Sherman tank through.

b. I don't care if he's as tall as the Empire State Building, if he can't pass Freshman English, he can't play basketball.

There is also another hyperbolic use which cuts across the syntactic types. In these cases, the first element of the correlative is used as a predicate without a head item to modify, and the complement allows us to infer what the head item should be. Consider these sentences:[31]

255. a. That meal was { enough to gag a surgeon, / too much for a surgeon to take. / more than a surgeon could stand. / ?as much as would gag a surgeon. }

b. That film is { enough to make Linda Lovelace blush. / more than Linda Lovelace could watch. / too much even for Linda Lovelace. / ?as much as even Linda Lovelace could take. }

In each case the hyperbole of the complement which is implied by the assumptions of what it would take to gag a surgeon or make Linda Lovelace blush, etc. allows us to reconstruct the underlying adjective in these cases, i.e. bad/awful in (a) and embarrassingly sexually explicit in (b). The complement must be very strong in the presuppositions it conveys for the construction to be acceptable. If an ordinary complement is used, the sentences don't work, e.g.:

256. a. That book is interesting enough for you to read. --/→
b. *That book is enough for you to read.

257. a. Her cooking is good enough to please a chef. --/→
b. *Her cooking is enough to please a chef. (cf Her cooking is enough to make a Cordon Bleu Chef jealous.)

Before moving on to an examination of other cross-type similarities, it is useful to examine cooccurrence relationships holding between the

complex modifiers and modifications of the complex modifiers, including by each other. Earlier, in Chapter 2, we noted that EXTENT modifiers could be modified by other EXTENT modifiers, e.g.:

258. a. I am <u>really quite</u> happy about the project.
b. We are running <u>really very</u> close to the fail-safe point.
c. The project is <u>almost completely</u> finished.

The same holds true for the complex types; they can be modified both by the simple EXTENT modifiers and by other complex EXTENT modifiers. The following table summarizes the most important cooccurrences. The matrix should be read so that the modifiers at the top, marking the columns, are modifying the modifiers given in the vertical list of rows. For example, the first column (<u>much</u>) taken with the first row (<u>-er/more</u>) would tabulate the admissibility of <u>much more</u> as in:

259. a. John is <u>much more</u> of an idiot than I expected.
b. John is <u>much</u> tail<u>er</u> than Harriet.

	much	very much	so much ... that	too much ... to	as much ... as	enough ... to	more ... than	the most	extremely	certainly	absolutely	completely	quite	almost	rather	a lot	lots	a bit	some	no
-er/more X than							*	*				?	?							
too X to							*	*				?	?						*	*
so X that	*	*	*	*	*	*	*	*	*			?	*		*	*	*	*	*	*
as X as	*	*	*	*	*	*	*	*	*			?			*	*	*	*	*	*
X enough to	*	*	*	*	*	*	*	*	*			?			*	*	*	*	*	*
the -est/ most X			*	*	*	*	*	*	*			*			*	*	*	*	*	*

Table A

Examining these distributions tends to support the notion that there are subtantial similarities between the modificational types which cross the syntactic/semantic divisions postulated throughout the preceding part of this chapter.

According to the distributions shown in this Table, and in a number of other ways we will examine, more and too show themselves to be very similar and in contrast to all the other complex modifiers in their modification distributions.[32] They differ in the table only with the ability to be modified by no and some, which only more allows. There are also several other similarities. First of all, it is possible to paraphrase both with the verb exceed. The significant difference between them is that too is goal-oriented--the exceed meaning carries with it the incorporated negative notion, meaning to exceed some goal

or standard to the extent that there is a negative result. However, once this goal orientation is neutralized, we can see the paraphrase relationships obtaining between them, e.g.:

260. a. John is more clever than he needs to be for this job.
b. John is too clever for this job.
c. John's cleverness exceeds what is necessary for this job.

Both more and too have the same valence in scalarity. They cannot suspend each other, providing the values in the complements are kept equal,[33] e.g.:

261. a. *She's more interesting than I thought, if not too interesting.
b. *She's too clever for this job, if not more clever than necessary.

And they both can suspend the lower values of enough and as...as, e.g.:

262. a. She's early enough to get in, if not {too early. / earlier than necessary.}
b. She acted as rude as necessary, if not {too rude. / ruder than necessary.}

Thus despite their syntactic differences--resultative versus comparative--they still share many functional, semantic and syntactic similarities.

The other complex modifiers: so, enough, as, and the most, also share many cooccurrence restrictions as revealed in Table A. It is difficult to state precisely just what these may have in common that makes them show this amount of modificational coherence in contrast to more and too. However, in some sense they all seem to be stative, while more and too seem dynamic. This is difficult to prove by the usual syntactic tests, but there are some clues provided by those which

have verb paraphrases. As we saw, more and too can be paraphrased by exceed. Enough can be paraphrased by suffice and as...as by equal. Exceed is dynamic and suffice and equal are stative, as indicated by the usual progressive aspect and imperative tests for stativity, e.g.:

263. a. Andretti's pace is $\left\{\begin{array}{l}\text{exceeding}\\ \text{*equaling}\end{array}\right\}$ the track record.
b. *Andretti's pace is sufficing to keep him ahead of the pack.

264. a. $\left\{\begin{array}{l}\text{Exceed}\\ \text{*Equal}\end{array}\right\}$ your weight allowance! I don't care.
b. *Suffice your calorie count! (NB: I can't think of any command which even makes sense with suffice.)

So this is some kind of indirect support for the statement about the dynamic/stative distinction between more and too on one side and enough and as...as on the other. Any proof for the stative status of so and the most has to be even less direct. So used intensively asserts result, as we have seen. Presumably if the result is obtained as the predication asserts, then we have a resultant state, which would be stative and not dynamic. With the most we can only point out that attaining the superlative state which the most asserts almost by definition means stative, not dynamic, since there are no further possible states to be changed to. If all of this is true, then we have a natural class of predicates in so, enough, as, and the most, all of which show many similarities of modificational possibility, as indicated by Table A.

We have already commented at some length in Section 3.12.12. about similarities obtaining between so and as. It is not necessary to repeat them here.

Enough and as also exhibit some similarities not shared by the others. In talking about their similarities, it is necessary to keep in mind that enough is goal-oriented (parallel to what we noted earlier about too) and as is not; as must state any goal in its complement, but the goal is incorporated in the meaning of enough. The paraphrase verbs for enough and as--suffice and equal respectively--are very close in meaning, and indeed suffice might be said to mean equals an understood goal. Thus to say, This food will suffice for tonight could be paraphrased by This food will be equal to what is needed for tonight. Both enough and as have the same scalar valence values; they both can be suspended by too and more, but not by each other, e.g.:

265. a. This rope is long enough to reach across the ravine,
if not { longer. / *as long as necessary to reach across. }

b. She acted as nice as was necessary,
if not { nicer / *nice enough }.

We have thus been able to see a number of similarities between the complex modifiers which cross the original resultative/comparative dichotomy. No doubt there are others lurking about, but the point is made. Despite the fact that the resultatives and the comparatives are very different in many essentials of both structure and meaning, they exhibit an extraordinary number of parallels.

3.20. Complex Quantity

By now it should be obvious that all of the complex degree modificational structures have very exact quantificational counterparts. Consider the following sentences, all with quantification:

266. a. He ate so many apples that he got a stomach ache.
b. I bought so much junk that I couldn't carry it all home.

267. He received such applause I was astounded.

268. a. He had too many shares to get rid of them in time.
b. She had too much tact to criticize her husband.

269. a. We have enough chairs to seat everybody.
b. They owned enough land to run 100,000 head of cattle.

270. a. They had as many cars as Cal Worthington.
b. He lost as much money at poker as I earn in a year.

271. a. The Whigs got more votes than the Tories.
b. The Carters owned more land than the Talmadges.

272. a. He sells the most cars of any dealer in Southern California.
b. California exported the most wine last year that it has ever exported before.

These examples are all with nominal quantification. Parallel examples can easily be found with verbal quantification for all of these structures except such...that, which is confined to nominals, e.g.:

273. a. Romeo loved Juliet so much he sold his Honda.
b. Priscilla lied too much for anyone to believe her.
c. The river deppened enough there to allow easy passage.
d. He followed that story as much as was possible from that distance.
e. Columbo scrutinized it more than I thought justified.
f. That night the wind howled round the chimney the most that I had ever heard it before.

It is worth noting in all of these cases that the much is an integral part of the constructions with so, too, and as, although it can be

deleted with so, e.g.:

274. a. Romeo loved Juliet so, he sold his Honda.
b. *Romeo loved Juliet much.

275. a. *Priscilla lied too, for anyone to believe her.
b. *Priscilla lied much.

276. a. *He followed the story as was possible from that distance.
b. *He followed the story much.

This is of course a result of the fact that much is the unmarked quantifier for verbs, and has a limited surface distribution governed by a number of (perhaps related) factors, including use with such modifiers as these and with negation, as seen in, e.g.:

277. Romeo didn't love Juliet much.

278. Priscilla didn't lie much.

279. He didn't follow the story much.

We will return to a discussion of such quantifiers later in this chapter.

It is clear that there are very great similarities between the complex degree structures discussed in Section 3.10. and these complex quantity structures. Syntactically the structures are almost identical; they are identical in the cases of such, enough, more and the most, consisting simply of the first part of the correlative, the head item, and the complement part of the correlative, e.g.:

degree			quantity		
modifier --	head --	complement	modifier --	head --	complement
such	nonsense	that...	such	applause	that...
enough*	aware	to...	enough	eggs	to...
more	happy	than...	more	trouble	than...
the most	obscure	of all...	the most	money	of all...

(* See note next page.)

(*As already noted, enough usually must follow adjectives and adverbs; it is listed here before the head to exploit the parallels; nothing is obscured by this, especially since enough can often follow nouns, e.g., eggs enough to...)

In the cases of so, too, and as, there is a difference in the quantitative use--a quantifying adjective is required, e.g.:

degree			quantity		
modifier --	head --	complement	modifier --	head --	complement
so	afraid	that...	so many	eggs	that...
too	odd	to...	too much	trouble	to...
as	happy	as...	as much	money	as...

This partial symmetry will be discussed at length in the final section of this chapter.

The semantic and functional parallels are even more compelling. To the best of my knowledge, nothing which was discussed about the functions and meanings of the complex degree modifiers is without its parallels in the complex quantificational structures. It would be quite tedious to give an example of every single parallel. The reader is invited to substitute quantity examples for all the degree examples given in Section 3.11.11 to test this hypothesis.

However, it is perhaps valuable to point out some of the most obvious parallels which hold, and to illustrate some of the least obvious ones.

With the resultatives, we find the same kinds of restrictions which held for anaphoric use of degree so, too, and enough, hold as well when they are used quantitatively, illustrated here using only

so:

280. A: Do you always buy just enough beer to last for the day?

B: Yeah, I'm supposed to buy $\left\{\begin{array}{l}\text{that}\\ \text{*so}\\ \text{*very}\end{array}\right\}$ much.

Here the restrictions on so to indefinite, intensive uses is exactly parallel to the examples given in Section 3.11.11.

Similarly, so is limited to non-assertive environments when used anaphorically, e.g.:

281. Mary had just come out of the grocery carrying two enormous bags.

a. It was obvious to me that he had bought $\left\{\begin{array}{l}\text{a lot of}\\ \text{very much}\\ \text{*so much}\end{array}\right\}$ beer.

b. It was now obvious to me where he was getting $\left\{\begin{array}{l}\text{a lot of}\\ \text{very much}\\ \text{so much}\end{array}\right\}$ beer.

This is parallel to the instances examined in Section 3.11.11. concerning the non-assertive, anaphoric function of degree so.

Turning to somewhat less predictable parallels, there is one which could be easily overlooked. We noted with the comparatives that there was 'identificational' use of the comparative, where things which were not on the same semantic scale, might be compared as being more like one descriptor than another, e.g.:

282. a. Jane is more intelligent than pretty.
b. Jane is more intelligent than she is pretty.

283. a. *She behaves more cautiously than intelligently.
b. She behaves more cautiously than she does intelligently.

And as indicated by the sentences in (283), under certain circumstances,

this 'identificational' comparative requires the full predication in the complement clause.

A similar situation occurs with quantifiers. If the quantification given in the compared clause is different from that given in the main clause, then the complement cannot be reduced, even though the quantifier is kept, e.g.:

284. a. *He drinks as little water as much whiskey.
     b. He drinks as little water as he does much whiskey.

285. a. *We saw as few deer as many rabbits.
     b. We saw as few deer as we did many rabbits.

This example is given not as some very significant piece of information, but simply as further evidence of the enormous number of parallels which obtain in the complex degree constructions and the complex quantity constructions. When we turn to the next section of this chapter, we will see that the parallels can be shown to exist even where they are not as obvious.

3.30. Integrating Complex Degree and Quantity

3.31. Some Structural Parallels in Degree and Quantity

In Section 3.20. we saw that there were very exact parallels between <u>degree</u> and <u>quantity</u> with respect to what we have called complex EXTENT. There are a number of structural parallels in both simple and complex constructions involving <u>degree</u> and <u>quantity</u> which we have not explicitly pointed out, which should be noted before going on.

In information questions, questions concerning <u>degree</u> and <u>quantity</u> differ from other types of information questions. Most information

questions consist of an interrogative word placed at the beginning of the sentence with the usual accompanying necessary changes such as subject/aux inversion. For example, compare these various types of declaratives with the corresponding questioning of the underlined element:

286. a. He is at the station. (locative)
b. Where is he?

287. a. The man should be here at 8:00. (time)
b. When should the man be here?

288. a. He sold the old plug because he got a good price. (reason)
b. Why did he sell the old plug?

Even the type of modification which is closest in structure to EXTENT uses this same question process, namely manner:

289. a. He stood up in a very courtly fashion.
b. How did he stand up?

However, questions about EXTENT--that is about both degree and quantity--always move the complete construction under question to the front with the question word. Sentences (290-292) illustrate degree and (293-295) quantity:

290. a. That lad is very awkward.
b. How awkward is that lad?
(cf *How is that lad awkward?)

291. a. Andretti drove too recklessly.
b. How recklessly did Andretti drive?

292. a. Andretti drove a lot more carefully than Foyt.
b. How much more carefully than Foyt did Andretti drive?

293. a. He owns a lot of land.
b. How much land does he own?

294. a. Many people will suffer for that mistake.
b. How many people will suffer for that mistake?

295. a. Romeo loved Juliet so much more than his Honda that he sold it.
b. How much more than his Honda did Romeo love Juliet?

Other parallels can be seen in How exclamations, What exclamations, and the anaphoric processes we've examined, e.g.:

296. a. How awkward that lad is!
b. What a lot of land he owns!
c. I didn't know he was that awkward!

297. a. How carelessly Andretti drove!
b. What a number of people will suffer for that mistake!
c. I didn't know that that many people would suffer.

298. a. How much more carefully than Foyt Andretto drove!
b. What a great deal more than his Honda Romeo loved Juliet!
c. I didn't think that Andretti drove that much more carefully than Foyt.

These structural parallels alone should make it clear that degree and quantity are the same kinds of structures and any analysis which doesn't take this into account will be missing a very large generalizations. However, when we turn to the complex EXTENT constructions, we can see other parallels in structures as well.

Probably the most consistent of these parallel structures is one we might call modified constituent pre-posing, a type of emphatic device; this construction is parallel to one which has been called negative constituent preposing by Emonds (1971)[34] and negative adverb pre-posing by Green (1976), e.g.:

299. a. I have never been a big believer in that.
b. Never have I been a big believer in that.

300. a. I will allow you to do that under no circumstances.
b. Under no circumstances will I allow you to do that.

The basic process involves the fronting of the negated item and subject/aux inversion.

Basically the same process is involved with the complex modifiers, working with either degree or quantity. Examples of this type of construction are given only in the pre-posed form.

301. a. So excellent is the first article that it serves as a good introduction.
b. So many people had Larry invited, that his houseboat was sinking.

302. a. Too lost in his own thoughts was Ser to notice the slight glow.
b. Too many busses had we let go by to let the next one go by without stopping it.

303. a. Such a fierce battle had they had, that the living room was in a total shambles.
b. Such applause had the audience showered on her that she was almost in tears.

304. a. Enough times had I been tricked that I wasn't about to fall for that one again.
b. Enough beer had the Admiral ordered to float a battleship, and he was determined to drink it all.

305. a. As important to the economy as money was gross national product.
b. ?As much fear did I feel as I had ever experienced before.

306. a. More interesting than the rocket was the anti-gravity machine.
b. More lies had Harry told than the police were ever going to buy.

307. a. The most important thing of all was the huge dome they had designed to make the Venusian rainy season seem like a summer day.
b. The most money ever bid had the Chief just offered by raising his small, ring-clad hand.

There are a number of syntactic and functional constraints on just what can undergo this pre-posing process, some of which will be explored later. However, it is clear that both degree and quantity are equally possible candidates for this emphatic device. Again, any analysis

which doesn't recognize this parallelism in structure and function will be missing an important generalization.

3.32. Symmetry and Asymmetry in the Structure of Complex EXTENT

In Section 3.20. we noted that syntactically, the structure of the complex constructions shows some parallels and some differences. To briefly recapitulate, when so, too and as (hereafter abbreviated as a class by SO) are used quantitatively, most typically with nouns and verbs, there must be an overt quantifier present in the surface form, but when they are used with adjectives and adverbs they occur without the additional quantifier--thus so tall, so quickly but so much money, so many pencils. On the other hand such, more, the most, and enough (hereafter abbreviated as a class by MORE) occur on the surface without the quantifier, whether used with adjectives and adverbs, or verbs and nouns--thus more beautiful, more quickly, more money, more pencils. The following presents this asymmetry in diagrammatic form.

DEGREE

modifier -- head -- comp

{so, too, as} X Y

QUANTITY

modifier -- quantifier - head - comp

{so, too, as} {many, much, little, few} X Y

DEGREE

modifier -- head -- comp

{such, more, enough, the most} X Y

QUANTITY

modifier -- head -- comp

{such, more, enough, the most} X Y

Thus in examining parallels between the degree use and the quantity use, there is a surface asymmetry with SO. This asymmetry is not related to differences between resultative and comparative: as is comparative; so and too are resultative. Such and enough are resultative; more and the most are comparative. If it is at all possible, we would like to make the overall pattern symmetrical; that is, if possible, we would prefer to have either structure A or B rather than both:

A. EXTENT Head B. EXTENT EXTENT Head

However, it is clearly impossible to choose A in attempting to unite the two into a single description because there are multiple unpredictable quantifier possibilities in the second EXTENT place, e.g.: so many, so much, so few, so little.

However, it appears both possible and desirable to postulate a structure for complex degree modification of adjectives and adverbs like that given in B above. First of all, there are a number of adjectival and adverbial forms which allow, and sometimes require, the much/many EXTENT markers in the complex constructions. In many cases, the much cannot appear alone; it must be accompanied by one of the degree markers.

There is one particular class of adjectives which take much, either alone or in conjunction with so, too, and as,[35] e.g.: afraid, ablaze, ajar, aflame, asleep, awry, etc. Consider these examples:

308. a. I was much afraid of that. I was very much afraid of that.
b. *She's much afraid of him.
c. She's too much afraid of him to leave.
d. She's too afraid of him to leave.

309. a. If she's so much afraid of him, why doesn't she leave.
b. If she's so afraid of him, ...

310. a. *The old house was much ablaze.
(cf OK ...very much...)
b. The old house is now as much ablaze as it's ever going to be.
c. ?The old house is as ablaze as it's ever going to be.
d. If the old house is so (much) ablaze, why don't they run out?

311. a. *Margaret is much asleep after her tiring day.
(?...very much...)
b. She's too much asleep to wake up.
c. She's too asleep to wake up.
d. When she is so much asleep, we can't get her awake.
e. When she's so asleep, we can't get her awake.

All of these adjectives derive historically from prepositional constructions.[36] For example, ablaze derives from OE on blaze and afraid from on feared.

Almost certainly related to the occurrence of much with these adjectives, is its occurrence with certain prepositional phrases used predicatively. The prepositional phrases may be idiomatic forms of other single lexical items, e.g.:

312. a. *I am much under the weather. *I'm not much under the weather.
b. I've been so much under the weather, I haven't gone out.
c. ?I've been so under the weather...
d. I don't think I've ever been as much under the weather as this.
e. ?I don't think I've ever been as under the weather as this. (cf *so much sick, *too much sick)

313. a. *He's much in the know.
b. He's as much in the know as anyone around here.
(cf *as in the know)
c. When you are so much in the know, you've got a real advantage. (cf *...so in the know...)

However, the prepositional phrases don't have to be idiomatic to accept

such modification, e.g.:

314. a. He came down much inside the boundary line.
b. He came down so much inside the line, there's no need for an instant replay.
(cf *...so inside the line...)

The combinations with <u>much</u> can also occur before overt comparatives, e.g.:

315. a. She's much taller than Harry.
b. She's so much taller than Harry they'll never get married.
c. This one is as much sharper than that one as a razor is to a machete.

And it occurs before comparative-like adjectives, e.g.:

316. a. If you want to be so (much) different, why don't you shave your head?
b. Those guys are too much alike to tell apart.
c. I'd so much rather have beer than wine.
(cf *...so rather...)

And <u>much</u> occurs before the <u>too...to</u> correlative, as we have already seen in Section 3.13., e.g.:

317. a. Maxime is just so much too tall for the part, they won't even let her audition.
b. If I was as much too in debt as he is, I'd hit the road.

And curiously enough, all of these environments are the only environments which easily allow <u>enough</u> to occur before the adjective or adverb it modifies, rather than after, e.g.:

318. a. He's just enough asleep we don't have to worry about him.
b. I'm just enough under the weather that I don't feel like going out.
c. That new guy is enough taller than Goodyear that maybe he can guard him.
d. She's just enough too plain that I don't think they'll even give her an audition.

Not surprisingly, if we have anaphoric reference to these combined modifications, the much will show up in the same environment, e.g.:

319. a. I didn't think she was that much afraid.
b. Did you know he was that much under the weather?
c. Oh, he didn't come down that much inside the line. Let's look at the replay.
d. If she's that much smarter than Harry, why'd he propose?
e. I didn't believe the two molecules were that much different.

Given these facts, it is not unreasonable to posit, at least for some degree constructions, an underlying form which exactly parallels that of the complex quantification constructions, i.e., that at some point there will be an EXTENT construction like:

EXTENT EXTENT Head

for both complex degree and quantity.

Another question to raise here is the status of such, more, the most and enough vis à vis this construction. On the surface, they all allow an analysis of simply:

EXTENT Head

For purposes of further analytic symmetry, are there any reasons to assume that these forms might derive from an underlying construction which contains the quantity marker as well, thus appearing as:

EXTENT EXTENT Head

also? In other words, might these constructions be analyzed as consisting of underlying forms something like:[37]

EXTENT	EXTENT	Head	Complement
{enough, such, more, the most}	{much/many, little/few}	X	Y

In fact, it is quite easy to make a case for such an underlying form, along the same lines as was argued above for assuming an underlying much with some adjectives/adverbs occuring with the SO type modifiers. Consider these sets of related sentences:

320. a. He has enough money to buy downtown Dallas.
b. How much money does he have? (cf *How money...)
c. I didn't know he had that much money.
(cf *...that money...)

321. a. He got such applause for that last number, I thought they'd tear down the house.
b. How much applause did he get?
c. I certainly didn't think he'd get that much applause.

322. a. I just bought more books than I can carry.
b. How many books did you buy?
c. Oh, you couldn't have bought that many.

323. a. Harry just flashed the most bills I've ever seen in one roll.
b. How many bills did he flash?
c. Oh come on, he didn't flash that many.

Of course, one could argue that this is simply conditioned by the fact that every noun, except personal nouns, must have a quantifier associated with them. That is of course true, but doesn't necessarily weaken this analysis any. The alternative would be to say that EXTENT modifiers of the MORE type are complex lexical items which incorporate quantifiers in their lexical forms. It is not clear that this would gain us anything, and at least for the purposes of this analysis, it would tend to obscure what are obvious structural parallels in the EXTENT modificational system.

When we turn to the occurrence of the MORE EXTENT types with adjectives and adverbs, we find exactly the same environments support the argument for an underlying much/many, just as we saw with the SO

types. That is, in questions and anaphora with the adjectives, comparatives, and prepositional phrases where much/many could occur with SO, we find much/many occurring, e.g.:

324. a. Harriet is enough afraid of Sam to run away.
b. How much afraid of him is she? (OK How afraid...)
c. I didn't know she was that much afraid of him.
(OK that afraid)

325. a. I am feeling less under the weather today.
b. How much under the weather are you today?
(cf *How under...)
c. If I had known you were that much under the weather,
I'd have visited. (cf *...that under the weather...)

So, considering all of this, it seems clear that there are a number of reasons to assume that in all instances of complex quantity, we may have the syntactic form of:

EXTENT EXTENT HEAD

In some environments the second EXTENT marker will be deleted, in particular before most adjectives and adverbs.

The details and internal structure of complex EXTENT will form a major portion of Chapter 4, where we will examine how many of these processes interact.

3.40. A Brief Interim Conclusion

At this point I consider the basic thesis proved: degree and quantity are two aspects of the same syntactic/semantic category--EXTENT. In Chapter 2 it was argued that there are many reasons to assume that simple degree and quantity are closely related. These arguments included almost exactly parallel scalar values, similar behavior under negation, much lexical overlap, and a multitude of

syntactic similarities. In this chapter, after a very extensive review of various types of complex degree and quantity constructions, we have seen that they are very closely related functionally, lexically, syntactically and semantically. The sole difference we found in the complex forms had to do with the asymmetry exhibited in the distribution of the complex markers with much/many. And we saw that there is a good bit of evidence that at some level of analysis, degree and quantity will have identical syntactic structures.

Any description of quantity and degree which does not take this unity of both simple and complex forms into account will be failing to capture very real and very pervasive similarities.

In exploring the various types of complex EXTENT markers, we have also seen that there are a number of syntactic and semantic parallels which unite the complex types. These similarities were not apparent until we began to look systematically at the patterns of cooccurrences, predications and syntactic behavior which they manifest. Then we discovered that there are a number of cross-type similarities which were not at all obvious as long as we looked at them from the viewpoint of resultative versus comparative/superlative.

Our analysis of the various complex types of EXTENT markers has also led to a number of discoveries about the complex markers with respect to their behavior in sentences and in discourse. Basically, we have found out that the semantically meaningless markers so/such can appear only in non-assertive environments, whereas the meaningful ones--too, enough, more, as, and the most can appear in both assertive

and non-assertive environments. And we saw that these distinctions were of some importance in extra-sentential processes, especially those concerning anaphoric relations holding between assertions of EXTENT and later anaphoric references to those assertions.

And finally, with respect to complements, we have seen that there are some hitherto unremarked restrictions on what can occur in the complements of the comparative forms, including various kinds of modalities, some instances of negation, and various other kinds of predicate types.

The remainder of this work will examine certain theoretical problems having to do with an analysis of EXTENT, including an examination of some prior linguistic analyses relevant to a unified description of EXTENT. And finally, an analysis will be preposed which is consistent with the distribution, occurrences, and syntactic behavior which we have examined up to this point.

FOOTNOTES FOR CHAPTER THREE

[1] For example, see Stoffel (1901, 67) and Quirk and Greenbaum 1973, 314)

[2] The non-exclamatory must be emphasized here. Many instances with so can occur but their meaning is almost always exclamatory. The exception to this may be found in instances of colloquial speech, particularly of younger people, where so may be used non-exclamatorily meaning something roughly equivalent to very, e.g.:

i. That lady is so nice; she's always helping us.
(so pronounced without exclamatory stress or intonation)

Such examples are ungrammatical for me, but other English teachers and I have observed it in the speech of US college students. This was called to my attention by Celce-Murcia (personal communication). It seems very likely that this is an innovating use, perhaps under the pressure of the already existent neutralization of the differences between so and very under negation, discussed later in this chapter, e.g.:

ii. He isn't { so / very } smart. so = very

[3] (DW, 176 ff.)

[4] For me, the reduced form is almost obligatory; however, this seems not to be true for all speakers. Sandy Thompson (personal communication) says that she doesn't ever have the reduced form.

[5] This vowel reduction process is phonologically restricted even under stress reduction. In general, in what would normally be a reduced stress environment, the so does not reduce to /sə/ if the following word begins with an unstressed vowel. Thus we find this kind of distribution:

i. so absurb: /sow ˇəb'sʌrd/ but * /sə.../
ii. so awful; either / sow 'ɔfəl/ or /sə.../.

[6] Stoffel (1901, 77) remarks on this fact: "...the force of so in such cases is intensive and demonstrative at the same time."

[7] Bolinger (DW, 185) attributes all of these anaphoric uses of so to an implied cataphoric as clause, e.g.:

a. I'm sorry I got so confused (as to make the mistake).
b. You didn't expect to see me so soon (as you are seeing me).
c. Yes, and that's what worries me so (much as I am worried).

This seems basically correct as far as it goes, but it doesn't really go far enough. These clauses are all restrictive clauses and one of the most basic functions of such restrictive clauses is to identify, either by reference to prior discourse, e.g.:

d. the boy we spoke about yesterday

or by identifying by some apparent attribute or definite description, e.g.:

e. the boy wearing the yellow shirt
f. the men who will man Skylab
g. such men as I described

It stands to reason then that if something has been mentioned earlier in a discourse, as the antecedents for the anaphoric so must have been, they can be recalled by the use of a restrictive clause of identification, providing a re-identification of the earlier referent. Thus once the relevant conditions for the anaphoric so have been established by the preceding discourse, it follows that these conditions can be paraphrased by the as clause. However, this has little bearing on the conditions necessary for appropriate use of anaphoric so.

[8] Bolinger claims--rightly I think--that the deletion of the result clause heightens the emphatic force of the sentence by suspending the result (DW, 69).

[9] Bolinger (DW, 184-86) says that so is restricted to indefinite contexts because it is anaphoric with an as clause, which is also limited to indefinite contexts, e.g.:

i. He was so clumsy as to make one wonder...
*He was so clumsy as to make me wonder...

and thus the anaphoric so has the same restriction, e.g., (Bolinger's examples modified to make for parallelism):

ii. He wasn't so clumsy, after all, was he?
*He was so clumsy after all, wasn't he.
If he was so clumsy...
Nobody can be so clumsy...

For Bolinger, the indefiniteness resides in the INC type environment.

However, as the examples in sentences (29 - 31) show, so can occur in indefinite environments other than those provided through INC. Furthermore, we will see also that the distribution of so is considerably more complicated than just the restriction to indefiniteness.

10. In the example sentences below, the use of that is ungrammatical for me, although I've marked them as only questionable. The use of that improves under stress (pointed out to me by Celce-Murcia), but when that is stressed, it is felt as contrastive, requiring that the intensified referent in the main clause also be understood as contrastive in some way.

11 There is a remarkable similarity in this analysis of anphoric so and the indefinite restriction and a similar restriction Cushing (1973) has found with respect to so serving as a sentential pro-form. Cushing notes sentences with so and it such as these:

i. Noam said that deep structure exists, and I believed $\left\{\begin{matrix}\text{it}\\ \text{*so}\end{matrix}\right\}$.

ii. George asked me whether deep structure exists; I said that I believed $\left\{\begin{matrix}\text{so}\\ \text{it}\end{matrix}\right\}$

Cushing links the acceptable occurrence of the definite it with whether or not the referent takes a stance towards the meaning. If the referent represents a stance, either negative or positive, then the sentential complement pro-form will be it; otherwise it will be so. Thus in (i) what Noam said represents a definite stance towards the proposition that deep structure exists, and the complement pro-form it is used. In (ii) the proposition about deep structure occurs in an embedded question; such a question represents no stance, and thus so occurs as the complement pro-form. It turns out that all factives and some non-factives indicate stances and all non-stance predicates are non-factive.

Cushing goes on to propose that complements which occur under stance predicates thereby become definite, and he is able to account for the it/so distinction by using the already existent definite/indefinite grammatical distinction.

This analysis of the indefinite status of complement anaphora so is very much in accord with the analysis worked out here for degree so. I would like to thank Sandra Thompson for reminding me of Cushing's article.

12 A look at the sequence of papers beginning with Emonds (1971), Hooper & Thompson (1973), Green (1976) and Bolinger (1977) will be enough to convince any skeptic about this point.

[13] Givon (1975) gives an extensive description of the presuppositions necessary for appropriate use of negation.

[14] See Appendix (Gary, 1973). Bresnan (1973) makes a similar suggestion but treats so (much) as the underlying form and derives such by a rule; it is not clear if this is just a convenient short-hand for her, or if she considers so much as really more basic in some way. Her analysis of this and other related matters are dealt with in Chapter 4 in some detail.

[15] Actually this process is not limited to so; it is common to all of the 'complex' EXTENT markers: too, enough, more, the most, as, that, but not to the simple ones, e.g.: extremely, terribly, very, etc.: *very tall a girl, *extremely hazardous a job, etc. This will be discussed more at length in Chapter 4.

[16] For example, Horn (1972), Celce-Murcia (1972), Quirk and Greenbaum (1973).

[17] Bolinger (personal communication) says that he has an obligatory so that instead of a that complementizer, making it perhaps a resultative conjunction rather than a complex resultative correlative. However, if we compare the enough that given in (i) with enough so that, I detect a difference. Compare these two sentences:

i. I visited often enough that my parents were pleased with me.

ii. I visited often enough so that my parents were pleased with me.

For me the meaning here of (ii) is much closer in meaning to the enough with the infitive complement, i.e.,

iii. I visited often enough for my parents to be pleased with me.

than it is to (i). Thus, I must conclude, for myself anyway, that there are three distinct structures here: one with the infinitive complement, one with the that complement, and a third with a resultative conjunction so that.

[18] For discussions of some of these restrictions see Lees (1961) and Hale (1970).

[19] This information is based on Hale (1970, 53-54). McCawley's paper is an unpublished paper given at the LSA, New York, 1964, entitled, "Quantitative and qualitative comparison in English."

[20] The stress patterning here is discussed at length in DW (138-39), although not in connection with McCawley's distinction between 'qualitative' and 'quantitative' comparison. This stress patterning is part of a more general pattern dealing with adjectives modified for EXTENT and put in pre-NP position. This is discussed in some detail in Chapter 4 in my analysis of some of Bresnan's (1973) claims about such structures and their meaning for underlying representations.

[21] However, Bresnan (1973) seems to argue that these are indeed taken as quantity. This will be discussed in Chapter 4.

[22] Ross (1966) has suggested that there is a negative in the structure underlying than clauses in the comparative. His argument is based on the fact that certain kinds of affect changes such as some/any suppletion are required in than clauses, just as they are in negated clauses. For Ross, John is taller than that man would be derived from a structure something like: John is tall to an extent to which that man is not tall. There a number of arguments against such an analysis. Perhaps the easiest one to make is to point out that the equative comparative, to be discussed in the next section, also allows such affect changes but certainly would not lend itself to a semantic analysis with an underlying negative, e.g.: John is as tall as any of my friends. We will see shortly that in fact the affect problem of the comparative is part of a much larger problem also including the equative and the superlative.

[23] See Hooper and Thompson (1973) for a discussion of these types of verbs.

[24] For a much longer discussion of such examples, see Stoffel (1901, 67 ff).

[25] 'In affirmative sentences the construction as...as is always used; in negative sentences so...as is the normal form, but as...as is frequently used.' Eckersley and Eckersley (1960, 70).

[26] Stoffel (1901) has a very nice discussion of this distinction between the equative as...as and the intensive so...as, illustrated from 19th century literary usage, showing that the authors have been very careful in their choice of the intensive when that was what they meant, e.g.: 'And in the same way, if McCawley speaks of "a world so full of temptation as this", he does not mean another world equal to this one...but what he means is, this world of ours, which he characterizes as very [Stoffel's emphasis] full of temptation.' (75)

[27] For example, see Jespersen (1933), Ch. XXII.

[28] Celce-Murcia (1972, 5; 9, fn. 3) suggests that analyses of the comparative and the superlative will be different; she apparently thinks it unlikely that the two constructions can be derived from the same (or similar) deep structures.

[29] Halliday and Hasan (1976, 81) make a similar point about the non-referential properties of the superlative.

[30] Givon (1975) says that the affirmative compares the degree of presence of the same property. And the normal negative denies the affirmative. Negation in the compared clause would be comparing against the degree of absence since (for Givon) absence is absolute, and there would be no degree to compare against. However, the explanation given here seems to me to be nearer the mark, since there are many cases where negation doesn't assert absence but a lesser quality, as in:

i. John isn't tall.

As is well-recognized, negation of measure adjectives doesn't assert absence but lesser measure. Thus Givon's attempted explanation doesn't strictly hold. Furthermore, it will not account for the absence of degree modification in the compared clause, while the explanation offered here stands as the natural extension covering both negation and degree modification in the compared clause--as well as other factors discussed below this note.

[31] This type of construction was called to my attention by George Bedell (personal communication, 1972).

[32] Jespersen (1933, 226) makes a similar observation: 'We have what might be termed a latent comparative in the word too, which means "in a higher degree than enough or than is allowable or advisable." '

[33] This proviso about the complement is necessary in any discussion of the scalar valence of the complex modifiers. They do not lend themselves easily to the 5 valence values we discussed in Chapter 2 concerning the valences found in the simple EXTENT modifiers. This is because the complements of the complex modifiers can always provide an overriding scalar value. For example, we would normally expect the superlative to have a higher value than the comparative, which it does in the trivial sense that the comparative compares two members of a set while the superlative concerns the total set, e.g., where it is understood Max is in the room:

i. a. John is taller than Max, if not the tallest man in the room.
   b. *John is the tallest man in the room, if he's not taller than Max.

but if the sets change in the complements, then the normal inherent

values in the modifier no longer apply, e.g.:

ii. a. John is the best chess player in this room, if he's not better than Karpov.

[34] The parallels between what I have called modified constitutent pre-posing and negative constituent pre-posing are so great that one is tempted to try to capture them by including negation as one type of EXTENT. I have not done so thus far mainly because getting into an analysis of negation will make an already long document even longer. However, I suspect that both of the constructions share an enormous number of semantic and functional characteristics and may be amenable to a very similar syntactic analysis. That will have to remain an open question for the time being.

[35] Hale (1970) also notes this. Bolinger (DW) credits Kirchner (1955) with the observation.

[36] Marchand (1969, 139).

[37] In fact such an analysis has been proposed by Bresnan (1973). Her reasoning is somewhat different from that presented here, and is different in several ways from the further extension of this analysis which I will present in Chapter 4. Furthermore, I find most of her arguments spurious even though I do agree with much of the analysis. This will all be presented in some detail in Chapter 4.

CHAPTER FOUR. The Linguistic Representation of EXTENT

Up to this point, we have been mainly concerned with analyzing the data which bears on EXTENT. At certain points we have suggested that certain things might have a bearing on a linguistic representation of EXTENT, but the discussion has not been very explicit about just what might be entailed.

In this chapter we will consider how EXTENT might be represented in a grammar of English. First there will be a discussion of a long-standing argument in linguistic theory about whether some linguistic structures can be derived syntactically from other, more basic linguistic structures. This discussion will lead to a short discussion of the lexicon for EXTENT.

Then we will turn our attention to the syntax of EXTENT. I will examine in some detail two previous attempts to account for the syntax of EXTENT at the sentence level. Finally, I will offer an analysis for EXTENT which it is hoped will provided a viable unitary representation for both <u>degree</u> and <u>quantity</u>.

The discussion of the syntax of EXTENT will largely be limited to the sentence level and to only some of the various surface manifestations which it takes. Very little will be said about various extra-sentential processes, such as the anaphoric relationships governing the use of <u>so</u> and <u>such</u> when they appear without overt complement clauses that we discussed in Section 3.11. Clearly, a full discussion of this sort of discourse relationship and how to account for it syntactically would entail a full study of its own.

To do full justice to a linguistic representation for EXTENT, even at the sentence level, would require at least as much space again as we have taken up to this point. Therefore, of necessity, I will deal only with a limited range of what I consider to be interesting and important issues bearing on how EXTENT might be represented linguistically. The reader should understand that much of what is said must be suggestive rather than exhaustive.

4.10. Lexicon and Syntax

As we discussed at some length in Chapter 2, the cooccurrence and collocational distributions of EXTENT modifiers--especially degree--exhibit an inordinate amount of variety and restrictions. The reasons for this seem to have to do with the functions that we call on EXTENT to perform. In some cases these are straightforward descriptive functions. We indicate scaling, whether by degree or quantity, because there is a communicative need to do so. However, at least as often, we use EXTENT modification for creative and expressive functions: hyperbole, understatement, deliberate vagueness, hedging, etc. And this expressive side of linguistic usage is constantly trying to freshen itself, and modificational forms for expressing heightened or highlighted EXTENT meanings are constantly being coined. This is perhaps the place at which language structure and language creativity part company most often. Language needs structure to impose form on chaos, to conventionalize the arbitrary. However, it seems also to need chaos to prevent itself from becoming stale. The linguistic

reflex of this creative pressure is the use of words for expressive purposes without an overly fastidious concern for their original lexical meanings.

This fact creates many anomalies in the interplay between the generative power of the syntax and its combinatory uses of the lexicon. This in turn presents the linguist with a number of problems in accounting for the interface between syntax and the lexicon. I will be concerned here with pointing out some of these problems.

In the first section I will be concerned with the issue of derivational productivity. Can EXTENT modifiers be derived from other lexical categories via syntactic processes. In the second section I will comment briefly on collocational patterning of EXTENT modifiers and what this might mean for an analysis of EXTENT.

4.11. Derivational Productivity of EXTENT

This section is intended to show beyond any reasonable doubt that a lexical category, which we have consistently referred to as EXTENT, must be a part of the phrase structure of English. To put it in another way, this section is intended to show that there are many instances of what we have referred to as EXTENT which cannot be derived from some other more basic lexical category. This is <u>not</u> intended to be an argument that there is only <u>one</u> such category; there may well be others; it may turn out that what I have tried to get in under the description of EXTENT will require further sub-categorization.

The reason for devoting a complete section to this argument, which many readers will find apriori obvious, especially after some of the descriptions of cooccurrence and collocational restrictions examined in Chapter 2, is that there has been a good bit of discussion in the literature about deriving quantifiers (and adverbs) from some other lexical source, in particular from some 'higher' predicates.[1] Since I am postulating a unified account of degree and quantity, any argument concerning quantity must also concern degree. It is by no means clear that the controversy surrounding this issue--despite a good bit of both heat and light--is resolved. Therefore, it seems important to dispose of the issue with respect to EXTENT at the outset of this Chapter. Furthermore, one of the syntactic positions examined at some length in Section 4.2. (Celce-Murcia, 1972) depends on a syntactic derivation for EXTENT. Therefore, a discussion here can serve as necessary background for my critique of that analysis.

It is also useful to examine various EXTENT occurrences from a potentially productive viewpoint--i.e., assuming that it might be possible to derive degree and quantity modifiers from some other source, such as adjectives or adverbs by derivational transformations--in order to see the complexity of the problems facing grammatical theory in providing an appropriate interface between syntax and lexicon with respect to these constructions, some of which at first appear to be amenable to a derivational analysis, but when examined more closely appear increasingly idiosyncratic.

It is not intended here to give even a reasonably full survey of the range of collocational restrictions which might be explored. That is both unnecessary and impractical; it could easily take another document as long as this one already is to do that.[2]

4.11.1. Degree

Of the most highly lexicalized degree modifiers we have discussed, very probably shows the highest potential for being derived syntactically. This is due of course to the fact that it is the most common intensifier, and has the widest distribution. In combination with much, very occurs across all the other lexical categories. It doesn't have an adjectival counterpart, but it is not unreasonable to think that one might try to derive it from an adjective like great or perhaps high. For example, sentences like the (a) versions below might be derived from the (b) or (c) version, depending on one's analysis:

1. a. John is very tall.
   b. John is tall to a great extent.
   c. The extent to which John is tall is great.

2. a. Romeo loves Juliet very much.
   b. Romeo loves Juliet to a great extent.
   c. The extent to which Romeo loves Juliet is great.

3. a. Maxwell Smart is very much of an idiot.
   b. Maxwell Smart is an idiot to a great extent.
   c. The extent to which Maxwell Smart is an idiot is great.

In all of these cases, there appear to be appropriate paraphrase relationships, and as we will see later in this chapter, the syntactic processes involved in such derivations are not unreasonable.

However, there are some potential problems. There is a certain clash which comes out when things which are extreme opposites of the

adjective great appear to be modified by it, even when there is another appropriate subject for great. Consider the following:

4. a. Maria has a very tiny waist.
   b. ??Maria has a tiny waist to a great extent.
      ??Maria has a waist which is tiny to a great extent.
   c. ??The extent to which Maria has a tiny waist is great.
      ??The extent to which Maria has a waist which is tiny is great.

5. a. Tom Thumb was very much of a midget.
   b. ??Tom Thumb was a midget to a great extent.
   c. ??The extent to which Tom Thumb was a midget was great.

The (b) and (c) versions at the very best clash semantically. Furthermore, sentences like the (b) versions are often used in a hedging sense, e.g.:

6. a. Sam is very generous.
   b. Sam is generous to a great extent.
      (but he could be more so)

7. a. Mary is very honest.
   b. Mary is honest to a great extent.
      (but she does cheat on her income tax).

In the (b) versions we have what appears to be a use of the boosting adjective, but with an undertone of reservation. The versions with the intensifying very don't have this reservation.

Another problem in trying to derive very (much) from some other underlying predicate is that under some circumstances very much can mean something like certainly or really, that is, it can be used as an affirmation of truth or certainty (a shadow of its earlier history?). Compare these instances of very much:

8. a. I very much wanted to go.
   b. I wanted to go very much.
   c. I wanted to go to a great extent.
   d. The extent that I wanted to go was great.

9. a. I very much expected that you'd try that.
   b. *I expected very much that you'd try that.
      *I expected that you'd try that very much.
   c. *I expected to a great extent that you'd try that.
   d. ?The extent that I expected that you'd try that was great.

The meanings of the four versions of (8) are reasonably consistent. However, the meanings of (9.a) doesn't seem to be so much equated with great extent, as with a more apt paraphrase of truly or certainly. Thus (10) is a closer paraphrase of (9.a) than (9.d):

10. I certainly expected you'd try that.

This is probably also linked to the inability of very much to occur after the verb, e.g. (9.b). It might be noted that certainly has the same restriction, e.g.:

11. a. *I expected certainly that you try that.
    b. *I expected that you try that certainly.

With some verbs, we can see a difference in meaning between the truth affirming use of very much, and the to a great extent use. Consider the meaning differences between the (a) and (b) of the following:

12. a. I very much loved that old wreck of a car.
    b. I loved that old wreck of a car very much.

13. a. I very much hated the thought of being alone.
    b. I hated the thought of being alone very much.

For me, the (a) versions both indicate an affirmation of truth, while the (b) versions indicate simple intensification.

One might argue that the two different meanings of very much should be derived from two different sources. However, when we get to a discussion of the truth affirming intensifiers we'll see that there are other problems there which would interact with such an analysis.

The point made here is simply that even with the most lexicalized of EXTENT markers, very (much), there are collocational problems affecting the interpretation of meaning and the distribution of grammaticality, all of which would make a unitary derivation from some other lexical category impossible, and a multi-source derivation highly problematic if not impossible.

Let us now turn our attention to a type of EXTENT marker which does have an appropriate adjectival form which might serve as a source for a derivation, and which looks initially very productive, namely extremely. Consider these sentences:

14. a. He is extremely tall.
    b. He is tall to an extreme extent.
    c. The extent to which he is tall is extreme.

Here, the lexical meaning of the adjective and the intensive meaning of the intensifier are consistent. However, now consider these sentences, where the modified adjective is evaluative:

15. a. She is extremely pious.
    b. She is pious to an extreme extent.
    c. The extent to which she is pious is extreme.

16. a. He is extremely cautious.
    b. He is cautious to an extreme extent.
    c. The extent to which he is cautious is extreme.

17. a. She is extremely sophisticated.
    b. She is sophisticated to an extreme extent.
    c. The extent to which she is sophisticated is extreme.

18. a. His argument is extremely subtle.
    b. His argument is subtle to an extreme extent.
    c. The extent to which his argument is subtle is extreme.

In each of these (a) versions extremely means approximately very and is either approving or neutral in tone. However, the (b) and (c) versions become increasingly more disapproving as the extremity meaning of

extreme is brought out, and comes to mean overly, with a disapproving tone. What's operating seems to be that as long as extremely is serving the intensive function and occurs in the usual intensive position then the intensive meaning of extreme serves the modificational function. But when the adjective appears elsewhere in modificational structure, the potentiality of the extremity meaning comes into play and will interact accordingly with the item it is modifying, sometimes allowing the meaning to shift as well. Thus, intensive extremely would be difficult to derive from its predicate counterpart.

There are several degree modifiers, all intensifiers, which have adjective counterparts which have no relationship to the meaning of the intensifiers at all, including: awfully, terribly, frightfully, dreadfully and badly. Obviously, to say the (a) version below is not the same thing as the (b) version; nor is it improved any by substituting manner for extent, as indicated by (c), e.g.:

19. a. She is $\left\{\begin{array}{l}\text{awfully}\\ \text{terribly}\\ \text{frightfully}\end{array}\right\}$ nice.

b. The extent to which she is nice is $\left\{\begin{array}{l}\text{awful}\\ \text{terrible}\\ \text{frightful}\end{array}\right\}$.

c. The manner in which she was nice was $\left\{\begin{array}{l}\text{awful}\\ \text{terrible}\\ \text{frightful}\end{array}\right\}$.

Practically the only frame all of these can appear in simultaneously is a negatively-tinged one, e.g.:

20. She hated him $\left\{\begin{array}{l}\text{?badly}\\ \text{terribly}\\ \text{awfully}\\ \text{frightfully}\\ \text{dreadfully}\end{array}\right\}$.

Otherwise their occurrences are idiosyncratic, with badly and terribly tending to pattern together, e.g.:

21. I { badly / ?terribly / *awfully / *frightfully / *dreadfully } need a fix.

22. I need a fix { badly / terribly / *awfully / *frightfully / ?dreadfully } . (OK...awfully badly)

Since there are no obvious predicates to derive them from, it is problematic to think of some way of deriving them from some other lexical category. The use of a generalized predicate with some sort of negative-tinge to it to derive those which pattern most alike is not possible because of their highly idiosyncratic distributions. Thus it seems necessary to assume that they must be provided for directly.

Intensifier quite presents some interesting problems. A number of grammarians have labored over its meaning(s). Apparently quite came into English from French in the M.E. period and until 18th century consistently had a meaning approximately equivalent to completely,[3] a meaning of quite we discussed at some length in Section 2.12.1 under negation. Today its meaning varies greatly, and I don't think my own usage reflects the full range of meanings. For example, I think I have only two meanings: one approximately equivalent to very (much) and the other completely, illustrated respectively by (23) and (24):

23. a. He was quite tall.
    b. She's quite pretty.
    c. He's quite a golfer.

24. a. The old church was quite ruined.
b. My mind is quite made up.
c. That's quite enough noise out of you two boys.

However, apparently there is at least one other fairly clear cut sense of quite. Celce-Murcia (personal communication) has pointed out to me that very often quite may have a compromising or downtoning effect when used rather than very or a stronger intensifier. For example, the following, uttered at the end of a home-cooked meal was taken insultingly by the hostess:

25. That roast beef was quite good.

where quite had approximately the effect of sort of. This sense may be more likely in British usage, and apparently it has a fairly long history. Stoffel (47) gives the following quotation from Trollope:

26. 'I do hear that she has been quite admired'... It was too hard, to be told that [after being the belle of the Season] her daughter had been 'quite admired'.

Stoffel also claims that part of this usage develops from a tone of unexpectedness which quite carries. Thus for him quite in the sentence:

27. Come in, you're {quite / very} wet, I declare. (46)

contrasts with very; quite would indicate unexpectedness. With this use he says that the quite must be unstressed, the major accent falling on wet.

Given all of this diversity with one intensifier, it seems clear to me that the prospect of deriving quite from one or more predicative sources faces insurmountable odds.

When we look at the 'attitudinal' degree types like surprisingly, remarkably, astoundingly, we find a similar pattern of idiosyncratic

behavior from one functional type to another. It is possible to find paraphrase relationships which seem to hold an attitude expressed about a proposition and a similar attitude expressed via <u>degree</u>, e.g.:

28. a. $\left\{\begin{array}{l}\text{I was } \left\{\begin{array}{l}\text{astounded}\\ \text{surprised}\end{array}\right\} \text{ at} \\ \\ \text{It was remarkable}\end{array}\right\}$ how $\left\{\begin{array}{l}\text{tall}\\ \text{tired}\\ \text{angry}\\ \text{hungry}\end{array}\right\}$ he was.

b. He was $\left\{\begin{array}{l}\text{astoundingly}\\ \text{surprising}\\ \text{remarkably}\end{array}\right\}$ $\left\{\begin{array}{l}\text{tall}\\ \text{tired}\\ \text{angry}\\ \text{hungry}\end{array}\right\}$.

Here the degree versions in (b) are as good as the paraphrases given in (a). However, with stronger version of the same kinds of words this paraphrasic relationship will not hold, e.g.:[4]

29. a. $\begin{array}{l}\text{I was astounded at} \\ \\ \text{It was remarkable}\end{array}$ how $\left\{\begin{array}{l}\text{exhausted}\\ \text{furious}\\ \text{famished}\end{array}\right\}$ he was.

b. *He was $\left\{\begin{array}{l}\text{astoundingly}\\ \text{surprisingly}\\ \text{remarkably}\end{array}\right\}$ $\left\{\begin{array}{l}\text{exhausted}\\ \text{furious}\\ \text{famished}\end{array}\right\}$.

While there may be some variation, all of the types in (b) with the degree adverb are less acceptable than the adjectival counterparts in the (a) version. The reason for this skew is far from clear, but nonetheless real.

Degree modifiers which assert truthfulness or certainty show some very interesting qualities. We will examine only <u>truly</u>, <u>certainly</u> and <u>really</u>. We can see the relationship between their sentence modification origins and their degree functions. Consider the (a) and (b) versions

of these sentences:

30. a. $\left\{\begin{array}{l}\text{Truly}\\ \text{Certainly}\\ \text{Really}\end{array}\right\}$, she is beautiful.

b. She is $\left\{\begin{array}{l}\text{truly}\\ \text{certainly}\\ \text{really}\end{array}\right\}$ beautiful.

However, they reveal a good bit of diversity in their distributions and their intensive function. <u>Really</u> shows the widest distribution as an intensifier, being able to occur with almost as wide a distribution as <u>very</u>. <u>Certainly</u> and <u>truly</u> vary in distribution, with <u>certainly</u> showing more restrictions. Consider these sentences:

31. Harry, stand up $\left\{\begin{array}{l}\text{really}\\ \text{?truly}\\ \text{*certainly}\end{array}\right\}$ straight!

32. Please, sand this down $\left\{\begin{array}{l}\text{really}\\ \text{*truly}\\ \text{*certainly}\end{array}\right\}$ thin!

33. Can you make this piece of Bach's sound $\left\{\begin{array}{l}\text{really}\\ \text{truly}\\ \text{*certainly}\end{array}\right\}$.

18th Century-like?

34. If it's $\left\{\begin{array}{l}\text{really}\\ \text{?truly}\\ \text{*certainly}\end{array}\right\}$ good, I'll buy it.

35. He isn't $\left\{\begin{array}{l}\text{really}\\ \text{?truly}\\ \text{*certainly}\end{array}\right\}$ intelligent, so he may get a D.

36. a. He $\left\{\begin{array}{l}\text{really}\\ \text{truly}\\ \text{certainly}\end{array}\right\}$ is a strange man.

b. He is $\left\{\begin{array}{l}\text{really}\\ \text{truly}\\ \text{certainly}\end{array}\right\}$ a strange man.

c. He is a $\left\{\begin{array}{l}\text{really}\\ \text{truly}\\ \text{*certainly}\end{array}\right\}$ strange man.

Normally sentence modifiers can't occur in the INC type environment. Certainly seems to exhibit this quality consistently in intensive use as well, as shown in (31-35); really consistently behaves like a fully lexicalized intensifier except in (33) where it seems to be truth asserting; and truly seems to waver depending on what it is modifying; so, for example, it is bad in a command in (32) but fine in the request question in (33) where its truth asserting qualities come into play to emphasize 18th Century-like. As shown in (36), both really and truly can even move inside the NP to modify an adjective, but certainly cannot. It is worth noting that really is on the way to losing its adverbial marking; in most of the intensifier uses above, colloquial usage would probably be real instead of really (DW, 95). The exceptions are the obvious adverbial usage in (30.a) and the pre-NP uses of (36. a,b). This loss of adverbial marking is perfectly consistent with its functional identification as an intensifier.

What does all of this have to do with productivity? It seems clear, given the distributions cited above, that really and truly cannot consistently be predicted from their possible sentence adverb counterparts, whatever the analysis of sentence adverbs might be. Certainly, because it is constant in its environmental restrictions might be amenable to such a treatment. However, a semantic objection to deriving certainly as a degree modifier from a sentence adverb source can be made. Given the right head item modified and a position immediately before that head item, I don't think that certainly means

the same thing as its sentence adverb cousin; so, for example, certainly in the (a) version of the following does not seem to me to mean what the (b) and (c) versions mean:

37. a. Your room is certainly a mess.
    b. Your room certainly is a mess.
    c. Certainly, your room is a mess.

For me, certainly in (a) is nothing more than an intensifier with none of the certainty asserting qualities of (c); in (b) it seems less intensive, but not completely and in (c) of course it is only certainty-asserting. This is true with many other predicates it modifies. Despite its more idiosyncratic distribution, truly seems to be more consistently truth-asserting than certainly for me.

Thus far we have been considering the cases of degree modifiers which have become relatively lexicalized, i.e. that they have been used as degree modifiers because of what may have been originally other properties--extremity, truth-asserting, strong attitudinal, etc. And as these have been used as degree modifiers, many of them have lost--at least in certain occurrences--the meanings with which they were originally associated; in some cases little, if any, of the original meaning remains, e.g., very, terribly, rather, really, etc. In other cases much of the original meaning is still apparent, e.g.: remarkably, completely, extremely, etc. And there are cases which fall between these extremes.

However, thus far we have seen little if any evidence that it is possible to consider deriving the degree modifiers from some other, more primitive source. The very fact that they have been used in the degree function has tended to give them special and limited meanings

which are at odds either semantically or distributionally (or both) with any more primitive source which we might have postulated for them. This is of course not unexpected, especially since in many cases the degree modifiers have been functioning as such for quite long periods of time.

But what of non-lexicalized degree modifiers, those degree modifiers which are newly-coined or nearly so, and are used as degree modifiers because there is something in their meanings which lends itself to use for modification for degree, especially words which connote extremes and are thus good candidates for use as intensifiers? Consider this case:

38. a. The surface of the stove was searingly hot.
    b. The surface of the stove was hot to a searing extent.
    c. ?The extent to which the surface of the stove was hot was searing.

Here we have a descriptive, deverbal adjective which has a meaning which of necessity connotes extreme. Its literal meaning also has to do with the connection between heat and its effect; i.e., if something is described as searing, it means being burned by heat. Thus the uses in (38) are all appropriate; and the use of searingly is both descriptively accurate and gives an intensive meaning to hot, equivalent to, but more imaginative than very. It is precisely this extremity feature combined with the notion of heat which makes the following sentence using searingly as an intensifier singularly appropriate:

39. Plutonium is searingly radioactive.

Very used here would be logically equivalent but much less striking. However, note that now searingly is not being used literally. Plutonium,

while it may be <u>searingly</u> radioactive, does not in fact <u>sear</u>; you couldn't cook a steak over a chunk of plutonium, and people who work around plutonium and come into contact with it aren't even aware of it until they become sick, or until they receive a radiation check. Thus, while (39) is a singularly appropriate description of how radioactive plutonium is, its strength comes from the extremity function of <u>searing</u> rather than its literalness. We are here well into the realm of metaphoric usage. Obviously, we would not want to derive (39) from sources like:

40. a. Plutonium is radioactive <u>to a searing extent</u>.
    b. *<u>The extent</u> to which plutonium is radioactive is <u>searing</u>.

Still less would we want to derive the (a) version of (41) from either (b) or (c):

41. a. The Prime Minister's retort was <u>searingly</u> sharp.
    b. *The Prime Minister's retort was sharp <u>to a searing extent</u>.
    c. *<u>The extent</u> to which the Prime Minister's retort we sharp was <u>searing</u>.

Here the effectiveness of <u>searingly</u> is that the extremity feature can intensify the adjective sharp--his retort was very sharp--while the <u>heat</u> association can connote something of the speaker's temper and/or the listeners' reactions when the Prime Minister made the retort. When the adverb appears outside of the usual intensive, degree modifier position, its meaning reverts to its lexical origins and is no longer appropriate.

How then do we provide for such non-lexicalized degree modifiers? It seems inescapable to me that we must provide for them directly in phrase structure and not by syntactic derivation. How we provide an

account of their meaning is another, even more interesting question, but one which I will not pursue here.

4.11.2. Quantity

Thus far we have confined ourselves to the degree aspect of EXTENT. However, the lack of regular correspondence from one grammatical category to another is equally true with quantification, although probably not nearly so idiomatic in distribution. The major obstacle to productive derivation of quantifiers from a predicate source is lack of appropriate predicates to account for the rich variety of quantifiers. The early treatments of quantification[5] as being derived from predicates tended to limit themselves to an extremely narrow range of quantifiers, especially those which had at least some claim to having a potential adjectival source, e.g.:

42.	a.	The number of boys is two.	two boys
	b.	?The number of boys is few.	few boys
	c.	?The number of boys is many.	many boys
	d.	The number of boys are numerous.	numerous boys
	e.	?The amount of bread is much.	much bread
	f.	?The amount of bread is little.	little bread

But there are far more quantifiers which do not have obvious adjectival sources, e.g.:

43.	a.	*The number of boys is some.	some boys
	b.	*The number of boys is all.	all boys
	c.	*The number of boys is lots.	lots of boys
	d.	*The amount of beer is a bit.	a bit of beer
	e.	*The boy(s) is/are each.	each boy
	f.	*The boys is/are every.	every boy
	g.	*The boys are most.	most boys
	h.	*The boys are both.	both boys

This is equally true when we look at the adverbial quantifiers of verbs and verb phrases. A few of them do have possible adjectival sources,

but most do not, e.g.:

44. a. He visited frequently.
    b. The number of times he visited was frequent.

45. a. He has lived there continuously.
    b. ?The amount of time he has lived there is continuous.

46. a. He always sings that song.
    b. *The number of times he sings that song is always.

47. a. He usually comes on Saturdays.
    b. *The number of times he comes on Saturdays is usual.

48. a. He scarcely bets at all.
    b. *The number of times he bets is scarce.

49. a. He seldom drinks Vat 69.
    b. ?The number of times he drinks Vat 69 is seldom.

Some solutions have been suggested for this problem of a lack of appropriate adjectival sources. For example, Celce-Murcia (1972)--as we will be discussing more at length in the next section--has suggested deriving _few_ from _a small number_, _many_ from _a great number_, and _much_ from _a great amount_. Even if we suppose that such solutions are available for all of the quantifiers--and I do not suppose this--there would still be a problem. For example, there is a difference between _few_ and _a few_, as illustrated by:

50. a. Few small boys like housework.
    b. I received few responses to my questionnaire.

51. a. A few small boys like housework.
    b. I received a few responses to my questionnaire.

There is a difference in perspective, _few_ emphasizing the smallness like _not many_, and _a few_ indicating _while small_, _some_. Yet both of these could be paraphrased by _a small number_, but that provides no way of differentiating them.

The quantifiers don't seem to show nearly the same amount of distributional idiosyncrasy as the degree modifiers; however, it is still the case that there are a number of rather unpredictable cooccurrences. I would like to call attention to the behavior of some of these restrictions. I don't propose here to go into great detail in trying to account for the distributions. This discussion is intended solely to show that some quantifiers also show considerable unpredictable patterning, if not as much as the degree modifiers.

Consider the following set of quantifiers: a bit (of), a good bit (of), a good deal (of), a lot (of), lots (of), and plenty (of). I assume that there is no question that they are quantifiers rather than nominals. They all share one characteristic: They can modify non-count, mass nouns, e.g.:

52. He's had $\left\{\begin{array}{l}\text{a bit}\\ \text{a good bit}\\ \text{a good deal}\\ \text{a lot}\\ \text{lots}\\ \text{plenty}\end{array}\right\}$ of luck.

Otherwise the first three cannot occur with count nouns, while the last three can. Distinctions based on count/non-count, of course, pose no problems of analysis since such cooccurrences are systematic. However, beyond this we begin to find problematic patterns. First of all, consider these quantifiers modifying a measure adjective:

53. That dress is $\left\{\begin{array}{l}\text{a bit}\\ \text{?a good bit}\\ \text{*a good deal}\\ \text{*a lot}\\ \text{*lots}\\ \text{plenty}\end{array}\right\}$ short.

54. Jack is $\left\{\begin{array}{l}\text{a bit}\\ \text{*a good bit}\\ \text{*a good deal}\\ \text{*a lot}\\ \text{*lots}\\ \text{plenty}\end{array}\right\}$ tall.

Used with comparative and comparative-like structures, we find a different distribution yet:

55. He preferred $\left\{\begin{array}{l}\text{?a bit}\\ \text{*a good bit}\\ \text{*a good deal}\\ \text{a lot}\\ \text{lots}\\ \text{plenty}\end{array}\right\}$ of steak and no potatoes.

56. This news was different from $\left\{\begin{array}{l}\text{*a bit}\\ \text{a good bit}\\ \text{a good deal}\\ \text{a lot}\\ \text{lots}\\ \text{?plenty}\end{array}\right\}$ of gossip you hear.

57. The new center is $\left\{\begin{array}{l}\text{a bit}\\ \text{a good bit}\\ \text{a good deal}\\ \text{a lot}\\ \text{lots}\\ \text{*plenty}\end{array}\right\}$ shorter than he should be.

These quantifiers modifying gerunds show distribution by varying verb type and by pre- or post-NP position, e.g.:

58. $\left\{\begin{array}{l}\text{A bit}\\ \text{A good bit}\\ \text{A good deal}\\ \text{A lot}\\ \text{Lots}\\ \text{?Plenty}\end{array}\right\}$ of jogging is good for you.

59. Jogging $\left\{\begin{array}{l}\text{a bit}\\ \text{a good bit}\\ \text{a good deal}\\ \text{a lot}\\ \text{lots}\\ \text{*plenty}\end{array}\right\}$ is good for you.

60. $\left\{\begin{array}{l}\text{A bit}\\ \text{A good bit}\\ \text{A good deal}\\ \text{A lot}\\ \text{Lots}\\ \text{Plenty}\end{array}\right\}$ of planning is necessary for a good job.

61. Planning $\left\{\begin{array}{l}\text{a bit}\\ \text{?a good bit}\\ \text{?a good deal}\\ \text{?a lot}\\ \text{?lots}\\ \text{*plenty}\end{array}\right\}$ is necessary for a good job.

There is also variation with gerundives if the <u>quantity</u> is taken as part of the object of the gerund, e.g.:

62. By jogging $\left\{\begin{array}{l}\text{a bit}\\ \text{a good bit}\\ \text{a good deal}\\ \text{a lot}\\ \text{lots}\\ \text{*plenty}\end{array}\right\}$, he lost 10 lbs. in 10 days.

63. By planning $\left\{\begin{array}{l}\text{a bit}\\ \text{?a good bit}\\ \text{?a good deal}\\ \text{a lot}\\ \text{*lots}\\ \text{*plenty}\end{array}\right\}$ now, we can easily improve our image.

Taken as the quantifier of a non-event, relatively emotionless verb, we get one distribution:

64. I like corn fritters $\left\{\begin{array}{l}\text{?a bit}\\ \text{*a good bit}\\ \text{a good deal}\\ \text{a lot}\\ \text{lots}\\ \text{*plenty}\end{array}\right\}$.

However, if the verb is strongly-tinged we get a different distribution:

65. $\left\{\begin{array}{l}\text{He appreciates what you did for him}\\ \text{He hates what you did to him}\end{array}\right\}$ $\left\{\begin{array}{l}\text{*a bit}\\ \text{*a good bit}\\ \text{*a good deal}\\ \text{a lot}\\ \text{lots}\\ \text{*plenty}\end{array}\right\}$.

Used duratively, we find still another distribution, e.g.:

66. Hang around him $\left\{\begin{array}{l} \text{a bit} \\ \text{*a good bit} \\ \text{*a good deal} \\ \text{a lot} \\ \text{*lots} \\ \text{*plenty} \end{array}\right\}$ and see what you can find out.

Under negation, there is a limited distribution, but under the conditional they can all occur:

67. He hasn't had $\left\{\begin{array}{l} \text{a bit} \\ \text{*a good bit} \\ \text{a good deal} \\ \text{a lot} \\ \text{lots} \\ \text{*plenty} \end{array}\right\}$ of luck.

68. If I hadn't had $\left\{\begin{array}{l} \text{a bit} \\ \text{a good bit} \\ \text{a good deal} \\ \text{a lot} \\ \text{lots} \\ \text{plenty} \end{array}\right\}$ of luck, I'd never have found this place.

I am fairly certain that I could go on <u>ad nauseum</u>. I am not denying that there may be an analysis for all of this diverse behavior; it <u>may</u> be entirely selectional and collocational; however, even if these occurrences could be shown to be selectional, I am willing to bet that it is impossible to provide an adjectival source for each the quantifiers which will account for its distributions. I don't expect to find <u>many</u>/ <u>a lot of</u>/ <u>*a good bit of</u>/ <u>*a good deal of</u>/ takers. My point is ultimately simple. I do not think a single source predicate can be found for each of these quantifiers. If it cannot, then I conclude--just as for degree EXTENT--that simple quantity EXTENT for such quantifiers must be provided for directly in the base. It cannot be derived.

If we must provide for simple EXTENT in the base for some cases, are there any good arguments for why some of the simple EXTENT modifiers should be derived from higher predicates while others are provided for directly? I do not know of any compelling reason why this should be so.

The quantifiers discussed thus far are only those which serve consistently as quantifiers, either of nominal or verbal EXTENT. There are great numbers of adjectives and adverbs which, because of their extremity features, can be used as quantifiers, just as similar adjectives and adverbs served as degree modifiers. Just to give a few examples, consider the following:

69.	a.	We dined amply	(= We ate a lot.)
	b.	He ate heartily.	(= He ate a lot.)
	c.	He drank prodigiously.	(= He drank a lot.)
	d.	The crowd cheered thunderously.	(= It cheered a lot.)
	e.	He was enormously relieved.	(= He was relieved a lot.)
	f.	They were starkly provided for.	(= They were provided very little in the way of food and shelter.)

Similar combinations can be given with nominal modification, but almost always with a head of <u>number</u> or <u>amount</u>.

Just as we saw with degree modification, words with strong or extreme meanings may be used either just as quantifiers, or perhaps in more than one way at the same time; for example, in (69.c) <u>prodigiously</u> serves to indicate both <u>manner</u> and <u>quantity</u> simultaneously. The point being made here is that it is not a straightforward task to provide derivations for <u>quantity</u>, even when there are appropriate possible derivational sources for them.

Again, I am forced to conclude with respect to quantity as well as to degree, that deriving quantifiers from other sources is not possible. And I have not even touched on the kinds of issues which dominated the arguments between the proponents of derivational sources versus non-derivational sources. I will bring some further arguments forward with respect to syntactic problems of trying to derive quantifiers from predicate sources in my discussion of Celce-Murcia's analysis of complex EXTENT in the next section. But viewed solely from the standpoint of trying to decide what the possible sources of many of the quantifiers might be, I conclude that there must be a lexical category of EXTENT for quantity as well as for degree. Given our earlier discussion, this is not surprising. Indeed, it would be surprising only if it were otherwise.

4.12. EXTENT in the Lexicon

The behavior of various EXTENT modifiers, particularly the degree modifiers, exhibit such a wide variety of syntactic and collocational peculiarities that one despairs of ever making much sense of it all. The reason for this we have discussed at some length in Chapter 2 and in the preceding section. Here we will discuss very briefly what some of the problems might be in providing for lexical descriptions to account for EXTENT. No solutions will be proposed to these problems because that seems a much larger task than can be undertaken here. Furthermore, it seems likely that EXTENT is so complicated in its cooccurrences and collocations that EXTENT itself might well be the test case for any lexical theory.

Our exploration into the occurrences of simple EXTENT, especially degree, has made clear a number of reasonably straight-forward tasks involved in giving an adequate lexical description of the various cocccurrences involves in EXTENT modification. It seems quite clear that the main task involves extracting out of the various lexical items subject to EXTENT modification those inherent characterisitics which will show extension in the presence of EXTENT modifiers. With adjectives and adverbs this is a relatively straightforward task. It consists mostly of identifying which items are subject to EXTENT modification and then further classifying them with respect to such characteristics as completive, absolutive, relative, etc., which are relevant as to which degree modifiers can cooccur with them. We discussed this in some detail in Chapter 2 (2.11.31) and nothing of importance can be added here.

With nouns and verbs, however, analysis for EXTENT modification becomes more complex. This is because, as Bolinger (DW, 269 ff.) notes, degree nouns and verbs may contain at least one semantic feature which is factored out by a specifying intensifier; that is to say, degree nouns and verbs are often complex in lexical composition, and this has to be provided for in the lexicon. In some cases, there will be only one feature which is necessary, and it can be stated as an adjective or adverb and shows up most easily in a how question, e.g.:

70. a. He scrutinized the letter so! (= looked at carefully)
    b. How carefully did he scrutinize the letter?
    c. *How carelessly did he scrutinize the letter?

71. a. He is such a quack! (= a bad doctor)
    b. How bad a quack is he?
    c. *How good a quack is he?

And in some cases, in particular with verbs, the meaning of a complex head may be ambiguous between more than one intensifiable feature, e.g.:

72. a. He asserted it so! (DW, 268)
    b. How {positively / strongly} did he assert it?

In cases such as these, however, there are no particular problems of lexical analysis. Ultimately, these features could be analyzed and given in explicit form.

With predicate nominals there are a number of complicating factors in analysis. First of all, degree nouns have necessarily associated attributes, that is, those things which form part of the underlying definition of the word, e.g.:

73. a. What a shyster he is! (= dishonest lawyer)
    b. She is such a beauty! (= a beautiful girl)

Shyster can only be used with lawyers; it has no other associations. Beauty is necessarily associated with the adjective beautiful. However, with cases like beauty, we have to operate on a case-by-case basis. It will not be necessarily true that all de-adjectival nouns will retain the underlying adjective's meaning, e.g.:

74. a. Did you see the shiner she gave him? God, what a beaut that was! (= extraordinarily noticeable [black eye])
    b. Did you see his new girl? Isn't she a fright? (= quite unattractive)

Here both beaut and fright have come to mean something different from the original adjectives they derive from, beautiful and frightful (or frightening).

This kind of usage blends into another type, the associations which a referential noun picks up either because of its primary use or simply by accretions, e.g.:

75. a. He is such a Lothario. (= very promiscuous)
    b. What a bomb that movie was! (= very bad)

The choices of the meanings are often totally arbitrary; so, for example, notice the two opposite meanings of two semantically related nouns here:

76. a. How was your date? It was an absolute bomb!
       (= very bad)
    b. How was your date? Wow, she was a bombshell!
       (= very good)

While this type of usage is perhaps infinite in magnitude and subject to all kinds of complexities of metaphorical usage, ultimately it is a fairly straightforward matter to deal with in the lexicon. The possible associations probably can be listed. It remains to be seen if it is possible to make any further structural sense out of such associational patterns, and the answer may hold as much interest for the psychologist or the literary critic as for the linguist.

However, the area of EXTENT which holds the greatest interest and poses the most serious questions for the linguist has to do with the collocational restrictions which bind certain modificational groups together. Here we may be able to see parts of an underlying paradigmatic or syntactic pattern and feel we can predict some of the occurrences. However, as we have seen over and over, both in Chapter 2 and in the preceding section, very often this apparent pattern remains illusory when we pursue it very vigorously. Here, we are not talking about strictly idiomatic constructions which cannot be interpreted by

summing the parts in combination; rather, we are talking about constructions which do not exist, but which should exist according to all combinatory principles of linguistic structure. Furthermore, there is a good chance that they will never exist. That is, they are not 'holes in the pattern' in the sense that blick is a possible English word and its failure to occur is accidental. Such results of 'hole in the pattern' are genuine 'holes' just in the case that they could be mistaken for real entities. Presumably, it would not take very much evidence to convince a naive English speaker that blick did exist. 'A blick is a blemish in a Schick razor blade.' 'A blick is the electronic noise emanating from a quark.' 'The robot blicked his eyelids.' However, collocational restrictions are felt to violate acceptability in a way that a 'hole in the pattern' item does not.

This can be illustrated fairly simply by cases like terribly and dreadfully used as intensifiers. Consider these sentences:

77. She is $\left\{\begin{matrix}\text{terribly}\\ \text{dreadfully}\end{matrix}\right\}$ disfigured.

78. She is $\left\{\begin{matrix}\text{terribly}\\ \text{dreadfully}\end{matrix}\right\}$ pretty.

Presumably, the impetus behind uses like those of (78) was to take the extremity feature of terrible and dreadful in combination with their lexical meanings and use them in modification of something which wasn't terrible or dreadful, e.g., pretty, thereby creating a new, attention-getting means of intensifying. Of course, the lexical meanings associated with terrible and dreadful in this new use was soon washed out, leaving behind only the shell of the original. Similarly with the truth-affirming very when it was first introduced. This is all

understandable from the viewpoint of the need to create new lexical combinations which allow us to intensify through unlikely juxtapositions; if this were all there were to it, we would find no particular problems as linguists. But no. Language conspires to confound us. If terribly and dreadfully should act this way, logically we would predict that horribly should also. But consider:

79. a. She is horribly disfigured.
    b. *She is horribly pretty.

Why did horribly get left out of this semantic sea-change? Is there anything particularly different about horrible that distinguishes it from terribly and dreadfully to allow us to explain this difference. I suspect not. We don't use horribly this way because when this use of terribly and dreadfully came into vogue, horribly, for whatever reason, simply wasn't used and thus soon got left behind, retaining all of the elements of its horrible history while terrible and dreadful were able to escape from their prisons of meaning. But did they? Consider these:

80. a. She is $\left\{\begin{array}{l}\text{very much}\\ \text{terribly}\\ \text{dreadfully}\end{array}\right\}$ in love with him.

81. a. He is $\left\{\begin{array}{l}\text{very much}\\ \text{*terribly}\\ \text{*dreadfully}\end{array}\right\}$ on his guard now.

(80) illustrates that terribly and dreadfully can be used as intensifiers. (81) illustrates that there are constructions in which they are restricted. They are not restricted on semantic ground. We've already seen that they don't seem to carry much of their original meanings with them. They are in fact restricted on collocational

grounds. They don't occur because they weren't used like that. Their original value was the contrast between their meaning and its application to an unlikely context, e.g. terribly pretty, dreadfully nice. There was no need for them to be used in circumstances which didn't allow them to make currency of this contrast. Our syntax will generate sentences like (81 b and c). There is nothing in the meaning of terribly and dreadfully to prevent them from occurring in such a syntactic frame. But they are not English. Nor should we expect them to become English.

What does this all mean for linguistic description? Here we've taken only a very small sample of degree modification and encountered problem for how the interaction between syntax and lexicon works. We saw many more in the preceding section. I think what it means is that we have got to give much more credit to the role memory plays in language than most of us have been willing to admit. We have seen time after time in looking at cooccurrence restrictions between degree modifiers and the things they modify that we can analyze down to a point, but beyond that point we are faced with problems like those illustrated in the sentences of (81). What does seem clear is that simple combinatory principles covering individual lexical items and their cooccurrences is not enough, no matter how extensive or refined our classification system is. Many, many syntactically structured combinations are stored whole in the mental lexicon. Our analysis of the structure is post-facto and not generative. This is of course a point Bolinger himself has returned to many times, beginning with Bolinger (1967) and re-iterated most recently to the best of my

knowledge in (1976):

> ...Even when a linguist can analyze, it does not necessarily follow that he ought to. If grammars merely aimed at descriptive adequacy, this argument could not be advanced; but when grammarians begin to claim psychological reality for their models, they are presuming an explanatory adequacy of a deeper sort than they had bargained for. (12).

No doubt there are rules for some apparent irregularities in collocational patterning. Bolinger's own analysis of the behavior of well, much and all, discussed extensively in Chapter 2, illustrates very well how far the search can be taken. However, equally true, there are apparent regularities which disguise a great deal of underlying arbitrariness. Discovering this is as important to a discussion of lexicon and syntactic interaction as its opposite.

I do not propose to attempt an explanation of how to handle collocational facts. I have, I hope, pointed out where some of the areas of investigation lie. However, I do think that anyone who proposes a lexical system or theory should make sure he has examined a reasonably large range of degree modification before putting his theory to the public.

4.20. An Examination of Two Previous Analyses of EXTENT

There have been two major transformational analyses of the structures I have labelled EXTENT: Celce-Murcia (1972) and Bresnan (1973). To the best of my knowledge, these are the only other analyses which have explicitly attempted to bring degree and quantity under the same analysis.[6] They are also the only other analyses which have

attempted to cover a reasonably wide range of structures, including both simple and complex cases.

These two analyses are complementary for the purposes of analysis. Celce-Murcia's is a relatively abstract analysis, utilizing higher predicates and lowering rules to eliminate the abstract structures on the way to deriving surface structures. Bresnan's analysis is relatively concrete and operates within the lexicalist hypothesis (see Chomsky 1968) and the $\overline{X}$ convention. Thus the two analyses illustrate the problems that each writer is attempting to solve and also the problems confronting each type of analysis.

4.21. Celce-Murcia's Analysis

Celce-Murcia's (1972) analysis approaches complex EXTENT from the starting point of an analysis of the comparative, which she then extends to the other forms of complex EXTENT. She concentrates on the comparison of degree, but she also extends her analysis to include quantity.

In order to understand Celce-Murcia's analysis it is necessary to understand some of the prior analyses which form the background of some of her own arguments. She carefully explores several 'two sentence' analyses of the comparative including Lees (1961), Smith (1961), Hale (1970), Chomsky (1965) and Bresnan (1971). It is unnecessary to recapitulate all of these analyses and her arguments against them. However, it is important to describe at least a couple of them in order to understand the problems which Celce-Murcia is attempting to solve. I have chosen to discuss Lees' (1961) analysis in some detail because

it raises issues which are important for Celce-Murcia's analysis. I will also briefly sketch Chomsky's (1965) position. I don't discuss Bresnan's article, because I will discuss a later version of her position --Bresnan (1973)--in much greater detail in the following section.

Lees was writing in the Syntactic Structures (Chomsky, 1957). framework at the time he published Lees (1961), but it isn't difficult to extrapolate what it would look like in the Aspects framework of Chomsky (1965). Lees proposes to account for the comparative construction by providing a matrix sentence with a pro-element which the comparative construction could substitute for. For example, he would derive the sentences John is as tall as Mary and John is taller than Mary from an underlying matrix sentence like (82) and the substitution of the discontinuous sequences (a) and (b) respectively for the that pro-form provided in the matrix:

82. John is that tall

a. as...as Mary is that tall.
b. more...than Mary is that tall.

Lees could provide the that in (82) by the same rules he would use for introducing other degree modifiers such as very, quite, rather, etc. (309).

The that in the subordinate clauses of (a) and (b) is provided by the same rules and is necessary according to Lees to provide an apparent requirement in comparatives that they must have matching adverbial elements before reduction can take place in the complements, e.g.:

83. a. He sings as badly as she plays badly →
b. He sings as badly as she plays.

c. He sings as badly as she plays well $\not\rightarrow$
*He sings as badly as she plays.

Apparently in order to capture parallelism in the reduction processes across adjectives and adverbs, Lees proposes the that in the lower clause of predicate adjective constructions as well. It probably was not necessary, if the rule were stated in the most general way, but it had one fortuitous outcome for Lees' analysis which Celce-Murcia rightly points out: by positing an adverbial that in both clauses, Lees' analysis does not commit him to asserting that either John or Mary is absolutely tall in the comparative John is taller than Mary, as all the other two sentence analyses do.

One other important thing about Lees' analysis is that he explicitly links the adverbial that to the questioning process. He notes that if instead of that one has the interrogative and the wh-transformation, we get the appropriate question forms, e.g.:

84. How tall is John?

85. How badly does he sing?

Celce-Murcia's major criticism of Lees' analysis, aside from the more general criticism of two sentence analyses, is that he treats:

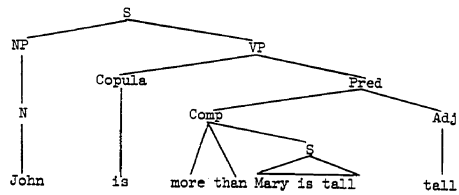
> -er...than, more...than, as...as etc. as discontinuous constituents...it fails to capture the fact that than and as are closely associated with the embedded sentences whereas -er, more, as, etc. are closely associated with the noun, adjective, verb or adverb they modify in the matrix sentence (C-M, 18).

However when Lees' own arguments are examined, it is far from clear that this criticism is warranted. It is entirely possible to argue that Lees' own position was in fact in line with Celce-Murcia's objections, and that he did think of the more and as as closely

associated with the head item modified and the than and as of the subordinate clause as constituents of the subordinate clause rather than as constituents of the first of the correlative elements. (For a more detailed discussion of this, see footnote 7.)

Chomsky's (1965) analysis for the comparative is much like Lees' after Lees' is put into the Aspects type framework, except that Chomsky posits an underlying John is tall for the matrix rather than John is that tall, e.g.:

86.



We will see later that Bresnan's analysis is somewhat comparable to this one, but with the $\overline{X}$ convention of Chomsky (1968) added.

Again Celce-Murcia's arguments against such a structure are against the postulating of the absolute John is tall and Mary is tall for the comparative and her more general criticism of the two sentence analysis of the comparative. Her criticism of Less for failing to indicate that the more was associated more closely with the head item tall in the matrix and the than with the complement clause would be a more appropriate criticism of Chomsky's analysis.

With this background, we can now turn to Celce-Murcia's own analysis. Her analysis is based on two premises: (1) a three sentence analysis of the comparative is superior both syntactically and

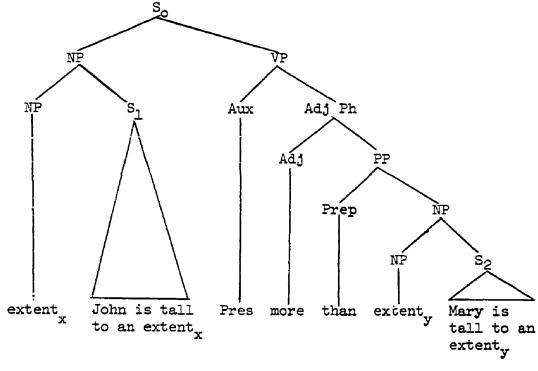
semantically to a two sentence analysis, and (2) concomitantly an analysis of the comparative should capture the structural parallels of the comparative with other comparative-like structures such as:

87. John is different $\left\{\begin{matrix}\text{than}\\ \text{from}\end{matrix}\right\}$ Mary

88. Harry is similar to Frank.

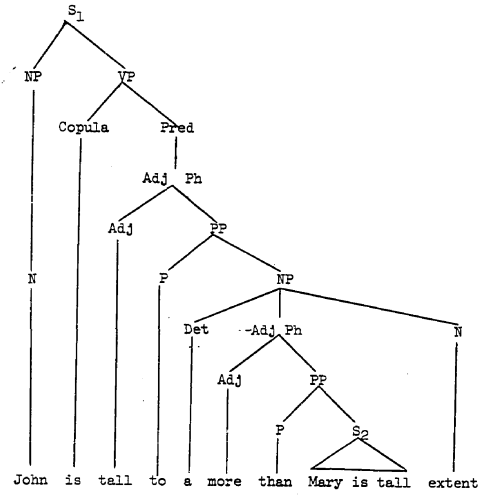
The main point she makes here is that <u>more than</u> should be analyzed as a combination of <u>adjective + preposition</u> parallel in structure to (87) and (88). Part of her argument for the three-sentence analysis is that it is the only one which allows this underlying 'intuitively correct analysis' to be captured. For purposes of expository clarity it is necessary to show a sample derivation of <u>John is taller than Mary</u> and then to discuss it. Her underlying structure of the sentence would be:

89.



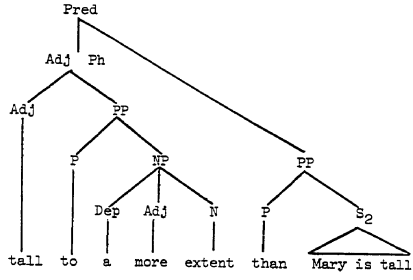
Her first rule is a rule which lowers the VP of S_0 into the NP object of the preposition of S_1; this is controlled by the 'classifier' $extent_x$ subject of S_0; the VP is effectively made a modifier of the $extent_x$ in S_1 which serves as the matrix of the derived sentence. This VP lowering is equated with the Lakoff (1970)--Carden (1968) rule for lowering predicative quantifiers like <u>few</u> and <u>many</u>; she in fact goes on to suggest some necessary revisions in their rule(s). The VP lowering applied to (89) produces, after a number of prunings which it is not necessary to describe in detail here, the first derived structure (90):

90.



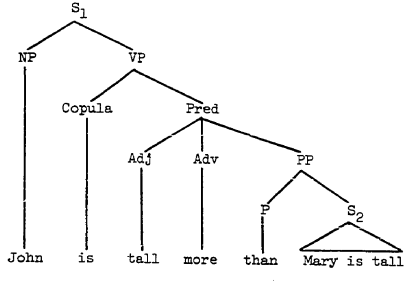
The next rule is one which raises the prepositional phrase <u>than Mary is tall</u> out of the extent phrase, attaching it as a constitutent of the Predicate, giving another derived sentence (91):

91. - - - -



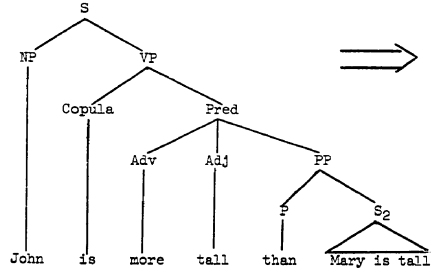
Celce-Murcia calls this rule <u>extraposition</u>. This rule does not apply if the object of the prepositional phrase is a cardinal number or a measure phrase such as two feet, ten pounds, etc. Next there is a lexical rule which changes to <u>a</u> $\left\{\begin{matrix}\underline{\text{more}}\\ \underline{\text{greater}}\end{matrix}\right\}$ <u>extent</u> in (59) to the adverb <u>more</u> producing the derived structure of (92):

92.

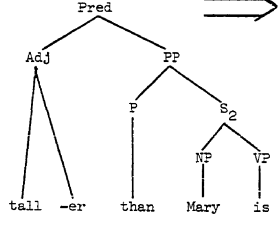


The provision here for to a greater extent is to allow greater to become more when more doesn't occur naturally with the head of the prepositional phrase, e.g. to a greater degree but not *to a more degree. After this lexicalization of the extent phrase, there are rules which move the more into its appropriate position and lexicalize it as -er and which prune the than clause to one of two or three ultimate forms, e.g.:

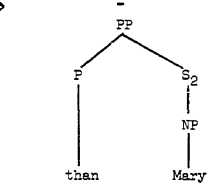
93.



94.



95.



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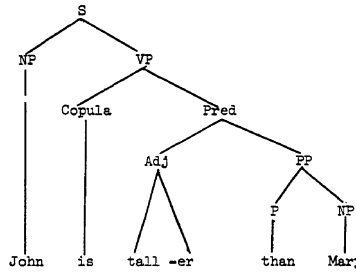


Thus Celce-Murcia ends up with a surface structure almost exactly parallel syntactically to John is different from Mary, which was one of her initial goals. According to her analysis, she has captured the underlying 'intuitively correct' analysis that more is an underlying adjective and than is an underlying preposition. Part of her argument for all the syntactic mechanics involved in deriving (97) from the much more abstract (98) is that it is necessary to capture this fact about more than. Semantically she argues that there is no alternative way to account for the synonymy of:

97. John is taller than Mary.

98. The extent to which John is tall is $\left\{\begin{matrix}\text{more}\\ \text{greater}\end{matrix}\right\}$ than the extent to which Mary is tall.

By postulating the abstract structure underlying (98) and then deriving (97) from it, she has been able to capture this synonymy.

Another syntactic argument she gives for such an abstract analysis is that the use of the 'classifier' nouns like extent, degree, amount,

etc. allows her to capture in a natural way why a sentence like:

99. *John is taller than Mary has books.

is ungrammatical. They would have different 'classifier' nouns, i.e., extent for tall and number for books. Such mixed classifiers would not be allowed.

From this initial derivation and set of rules she goes on to show how a number of obviously related structures should be derived. She uses essentially the same set of predicate lowering rules for all cases. Thus the (a) versions below represent the surface structures which would obtain before the lowering of the predicate and the (b) versions after the lowering and the other movement and pruning rules discussed had operated:

100. a. The extent to which Barney runs fast is as great as the extent to which Greg runs fast.
b. Barney runs as fast as Greg.

101. a. The amount of work Randy has to do is too great for Randy to do the work.
b. Randy has too much work to do.

102. a. The degree to which the cats were noisy is so great that we woke up.
b. The cats were so noisy that we woke up.

103. a. The extent that Barbara is old is enough for Barbara to vote.
b. Barbara is old enough to vote.

There are several comments which need to be made here. First of all only the equative of comparison of (100) is syntactically parallel to the more comparative as far as the structure of the complement goes. As great is treated as a phrasal adjective consisting of an adverb + adjective, where more was simple in construction; the second as is treated as a preposition exactly as than was in the more comparative.

However, the other three complex types are differentiated from the comparatives by the fact that they take complementizers as the heads of the complement clause rather than prepositions; thus too and enough take for-(NP)-to complementizers and so takes a that complementizer. These deep structure differences allow the rules for eliding the comparative forms to be distinguished from the various other rules which govern matter under complementizers, such as Equi-NP deletion.[8] Then she needs lexicalization rules such as these to give the appropriate surface forms:

104. a. fast to an as great extent --> fast to an as much extent --> fast as much --> as much fast --> as fast.

b. work to a too great amount --> work to a too much amount --> work too much --> too much work

c. noisy to a so great degree --> noisy to a so much degree --> noisy so much --> so much noisy --> so noisy.

d. old to an enough extent --> old enough.

The change represented in (a), (b) and (c) of great to much is to capture the fact that with as, too and so, much occurs in certain well-defined environments such as that illustrated by (b) too much work; otherwise the much is deleted by a fairly late rule which is sensitive to the grammatical category of the head item.

She doesn't discuss the analysis of such, but I assume that she would derive it from similar sources using either such itself or so great as the higher adjective which gets lowered, thus a derivation

along these lines, e.g.:

105. a. The degree to which Harry is an idiot is $\left\{\begin{matrix}\text{such}\\ \text{so great}\end{matrix}\right\}$ that he bought the Golden Gate Bridge as gold speculation.

b. Harry is such an idiot that he bought the Golden Gate Bridge as gold speculation.

Her analysis of quantifiers is very similar; as a matter of fact we can see one example in (101). With the simple quantifiers, she follows Lakoff-Carden in a higher predicate analysis, although she adds the mechanism of the 'classifying' nominal. Thus she would derive (107) from a deep structure which would also underly (106):

106. The number of students who passed the test is small.

107. Few students passed the test.

She chooses the adjective <u>small</u> as the underlying higher predicate and the lexical rule <u>a small number</u> --> <u>few</u> because of the ungrammaticality of positing <u>few</u> as a predicate adjective, e.g.:

108. ?The number of students who passed the test is few.

She similarly derives <u>many</u> from <u>a great number</u> and quantifier <u>much</u> from <u>a great amount</u>.

Celce-Murcia's analysis is an attractive one and is worked out in more detail with more attention paid to syntactic niceties than any other abstract analysis of comparison and quantification with which I am familiar. In her analysis she rightly ignores the host of arguments which had been raised about syntactic--as opposed to semantic--justification for an abstract analysis of the simple quantifiers. Those arguments centered around a very few cases and mostly were concerned with questions having to do with the scope of a limited number of

quantifiers under transformations which changed their linear order in surface structure. Celce-Murcia's major concern was with the comparative and its proper analysis, and by confining her arguments largely to the structure of the comparative she is able to muster considerable evidence about the overall patterning of the comparative structures and the very specific ways it is similar to and different from the resultative types of construction. I will have some remarks below about some problems for an abstract analysis of such constructions including her own.

Not only does Celce-Murcia use a higher predicate analysis for the comparative and other complex EXTENT markers, she also uses the same type of analysis for deriving simple degree and quantity. In Section 4.11. I presented a number of arguments against trying to derive simple EXTENT markers from other predicative sources. All of those arguments would apply to Celce-Murcia's derivation of simple EXTENT. It was the contention there that simple EXTENT modification could not be so derived because almost all, if not all, such structures had acquired collocational relationships which often over-rode their relationships with potential derivational sources. It was also argued that it was impossible to provide an adequate predicative source for those EXTENT markers which did not have adjectival or verbal lexical counterparts. Further, it was shown that in many instances--e.g. terribly, awfully, etc.--that the predicative counterparts bore no relationship to the EXTENT usage, and that it was impossible to find suitable substitutes to serve as predicates which would accurately reflect the meaning and distributional characteristics of such modifiers. Again, inasmuch as

those arguments are accepted they constitute arguments against a higher predicate analysis of simple EXTENT--although not against complex EXTENT. One might well ask then, how do we explain the paraphrase relationships which do exist between EXTENT used attributively and EXTENT used predicatively? To this I would answer with one of Celce-Murcia's arguments in a similar case. At the end of her Chapter 4, Celce-Murcia has a fairly long excursus on why more than and as great as should not be derived themselves from even higher predicates such as exceed and equal, respectively. She presents several arguments showing that there are a number of syntactic and semantic differences between the adjectives and the verbs. She concludes that:

> ...one should not attempt to derive [such paraphrastic] sentences from the same syntactic deep structure even though they appear to be semantically equivalent (i.e., partial overlap does not justify an analysis that presupposes full identity.) (123)

This is precisely the answer I would give concerning paraphrases with simple EXTENT.

Now let us turn to Celce-Murcia's analysis of complex EXTENT, which is really her main concern, and which can be separated from her extension of the analysis to simple EXTENT. First of all, let us consider her analysis of than as a preposition. One can certainly agree that it seems logical to call it a preposition in such sentences as:

109. John is different $\left\{\begin{matrix}\text{than}\\ \text{from}\end{matrix}\right\}$ Mary.

if for no other reason than that otherwise we don't know what else to call it. However, we might note that it is a preposition with a number of special characteristics. Like most prepositions it can take an NP object as illustrated in (109). However, as shown throughout, than and

as can also take finite sentential objects, which most prepositions cannot, e.g.:

110. a. John looked different today than he looked yesterday.
b. *John looked different today from he looked yesterday.
c. *I was surprised at she said that.
(cf I was surprised that she said that.)

Than and as can take infinitival objects, while most prepositions cannot, e.g.:

111. a. Mary was smarter than to try to fool me.
b. John was more dignified than to allow them to put a 10 gallon hat on him.
c. Harry was so dumb as to take confederate money.

112. a. *John was surprised at for her to fool him.
b. *Usually Mary was fond of for Harry to rub her back.

Prepositions usually take complex objects which are either gerundive or a type of relative clause, while than and as cannot, e.g.:

113. a. John was surprised at her fooling him.
b. He was also amazed at what she told him.

114. a. I understood from what you said that we weren't alone.
b. I understood from her nodding her head that she agreed.

115. a. John is different {from / *than} how you described him.
b. Mary is smarter than {to try to fool me / *trying to fool me}.

116. a. *Harry was as dumb as taking confederate money.
b. I was {amazed at what you told me / *as amazed as what I had ever been}.

And finally than and as both have the requirement of having some item which can be compared in the complement clause. No other prepositions to the best of my knowledge have this requirement.

Thus, to argue that than and as must be analyzed as prepositions because of their similarity in surface structure to prepositions in

sentences like John is different from Mary is to stretch a surface similarity to cover what is a much more complex set of factors.

Now recall that Celce-Murcia distinguishes than and as from the for-to complementizer. Than and as she treats as prepositions, but for-to she treats simply as a complementizer, without any further analysis. However, the for-to complementizer can be analyzed as a preposition as well. In fact, Celce-Murcia takes note of this herself.[9] Consider these sentences:

117. a. Mary is too tall for John.
     b. John is wealthy enough for Mary.

We might well want to analyze the for here as a surface preposition parallel in usage to examples like these:

118. a. John bought a rose for Mary
     b. John called at 8:00 for Mary.

This being the case, there is no large problem in analyzing than, as, and for as prepositions which take complex objects of a variety of kinds and serve both prepositional and complementizing functions. They would be differentiated by the set of specifications of just exactly what types of complex objects each takes. And all three of these prepositional complementizers could be clearly differentiated from the that complementizer which takes only full sentential objects. As we have discussed at some length in Chapter 3, there are a number of reasons for grouping the complementizers which allow various de-sentential complements together, including their relationships with their governing heads, i.e. more/as; too/enough, the presuppositional properties of their governing heads, and finally the types of constraints which occur on movement rules and a number of other

phenomena, all of which they have in common, as opposed to so/such and their that complements.

Turning now to syntactic problems, one argument which might be raised against such an abstract analysis as Celce-Murcia's is that it will produce several intermediate structures which have no surface manifestations. So for example in deriving John is taller than Mary there are a number of ungrammatical intermediate sentences produced, ignoring the morphological more/-er alternation, e.g.:

119. The extent to which John is tall is more than the extent to which Mary is tall.

120. *John is tall to a more than Mary is tall extent.

121. *John is tall to a more extent than Mary is tall.

122. *John is tall more than Mary is tall.
(NB: (122) is ungrammatical because of the parallel ungrammaticality of *John is sophisticated more than Mary is, not because of the failure of the -er alternation.)

How damaging such an argument is depends on one's criteria for judging grammatical arguments. Personally, I don't have much faith in the reality of syntactic structures which don't have some surface manifestation. However, I am willing to suspend disbelief and examine the arguments within the logic of their own system.

Another problem arises for Celce-Murcia's analysis when certain types of multiple modification occur. If more is used as the quantifier in the subject of the sentence, and more in turn is modified by one of the other complex EXTENT markers such as so or too (or for that matter, even another simple quantifier such as many[10]), then the underlying structure gets quite complicated due to center embedding. It also fails

to produce <u>any</u> grammatical string until all of the lowering and pruning operations have taken place; that is, unlike earlier examples where the initial string was a grammatical sentence before the various lowering and pruning operation, in these cases there is no acceptable initial string. For example, consider the reasonably simple surface structure form (123) with either of two optional positions for the <u>than</u> clause:

123. a. So many more people came to the party than we invited that we ran out of canapes.
b. So many more people than we invited came to the party that we ran out of canapes.

The surface form comparable to (119) which would emerge from the underlying structure after the rules of relativization have applied would be:

124. *The number of people who of the number of people who came to the party was more than we invited was so great that we ran out of canapes.

It is difficult to sort out the source out the source of ungrammaticality here; it may be partially the problem of center embedding which leads to processing problems.

However, continuing with the derivation of (123) we would find the following possible sequences as the two predicates are lowered from lowest to highest, respectively:

125. a. *The number of people of more people came to the party than we invited was so great that we ran out of canapes.

b. *So great a number of more people came to the party than we invited that we ran out of canapes.

c. So many more people came to the party than we invited that we ran out of canapes.

The (b) version of (123), with the <u>than</u> clause not extraposed, could be

provided for by either of two means: (a) extraposition could be made optional, or the than clause could be moved by a later rule back into construction with more people. I suspect that making extraposition optional under a certain number of conditions (not described here) would be the most economical and justifiable analysis. As we will see shortly, there are a number of cases where such an extraposition should be blocked, or made optional, depending on a number of factors, some of which are illustrated in the next argument.

As a general rule the complement of complex EXTENT extraposes to the end of the S which dominates it, as provided for by Celce-Murcia's extraposition rule. Often if the complement is not post-posed to the very end of the sentence, the sentence will be ungrammatical. If, for instance, a nominal element follows the item modified by the EXTENT marker, the complement must follow it, e.g.:

126. a. *John jumped up so quickly that he kicked over the chair from the chair.
b. John jumped up so quickly from the chair that he kicked over the chair.

This requirement for extraposition is more stringent for so/such than for the other complex types, so we will illustrate using only so examples until we reach the point to be made.

This fact about extraposition is true even if the head element is in a subject NP, e.g.:

127. a. *So many people that there weren't enough canapes came to the party.
b. So many people came to the party that there weren't enough canapes.

It is also true if the head element is a passivized subject, e.g.:

128. a. *So many people that we couldn't dance were crowded into the room.
b. So many people were crowded into the room that we couldn't dance.

However, even with so/such, it appears to be the case that extraposition is not always obligatory, i.e., that the complement may either remain a constituent of the head item or be extraposed to the end of the sentence, e.g.:

129. a. So many people that I couldn't count them all showed up for the dance.
b. So many people showed up for the dance that I couldn't count them all.

130. a. Enough beer to keep the Captain happy was loaded on board.
b. Enough beer was loaded on board to keep the Captain happy.

131. a. More people than we had invited showed up for the party.
b. More people showed up for the party than we had invited.

I don't propose to explain just what is happening here, but it appears to involve the scope of the modification. So, for exemple, in (127) the result--there weren't enough canapes--was a product, not of the number of people per se, but of the number of people who came to the party; therefore the complement stating the result of the modification so many people has to follow the complete predication of the main sentence for the result to make logical sense. On the other hand, in (129) the result given in the that complement--I couldn't count all the people--is a result of the number of the people rather than of their showing up for the party; therefore the scope of the modification is limited to the subject NP with the modifier, and the complement is

not required to be extraposed, since the predication of the main verb is not required for the complement's meaning to be stated. Something similar seems to be the case with (130) and (131). And in all of them, presumably, the complement can be optionally extraposed to produce the (b) versions of the sentences.

Thus far there are no unsolvable problems for the Celce-Murcia analysis. It is not exactly clear how such constraints would be handled but presumably there is some way to provide this sort of scope information so that a sentence like (127.a) or (128.a) could be marked ungrammatical for failure to extrapose.

However, there are sentences where extraposition must <u>not</u> occur, or either ungrammaticality (or perhaps anomaly) results or there is a change of meaning. Consider this example:

132. a. So many ducks that the sky is black with them are just beginning to land on the pond.
b. *So many ducks are just beginning to land on the pond that the sky is black with them.

Here extraposition must not occur or we will get an anomalous sentence--it is the number of ducks which is causing the result--<u>that the sky was black with the ducks</u>--and not their landing on the pond; once they have landed on the pond the sky will no longer be black. Such a sentence as this poses a perhaps insurmountable problem for Celce-Murcia's analysis. Given her rules for deriving the <u>so many</u> construction, with <u>so many</u> deriving from a higher predicate with the whole sentence within its scope, there doesn't seem to be any way for the relevant predication restriction to be stated. Her analysis would give the following

sentence before the predicate lowering had taken place:

133. The number of ducks which are just beginning to land on the pond is so great that the sky is black with them.

In other words, her only possible deep structure gives exactly the anomalous meaning.[11]

This is not confined to the so...that construction. Consider this sentence:

134. a. Enough gold to please the Queen had finally arrived at the treasury.
b. Enough gold had finally arrived at the treasury to please the Queen.

There is a meaning difference in these two sentences. For example, (a) might be used if the Queen were very avaricious. However, (b) is ambiguous between a meaning like that of (a) and another possible meaning linked with the arrival of the gold at the treasury, for example, if she needed the gold to wage a war.

Under some circumstance an anomalous sentence will be produced with enough parallel to that given in (132) with so, e.g.:

135. a. Enough water to fill the lake to overflowing destroyed the dam.
b. *Enough water destroyed the dam to fill the lake to overflowing.

Celce-Murcia's analysis cannot predict the ambiguity of (134.b) since she has only one underlying source possibility, e.g.:

136. The amount of gold which had finally arrived at the treasury was enough to please the Queen.

And her analysis will predict that both versions of (135) should be anomalous because of the ungrammaticality of her underlying structure,

e.g.:

137. *The amount of water which destroyed the dam was enough to fill the lake to overflowing.

Therefore, her analysis fails to account for the distribution of grammaticality for sentences in which the complement of enough may need to be able to indicate scope differences. This is exactly parallel to the cases with so...that.

However, it must be pointed out that her analysis fares better in cases with more and too used quantitatively. The fact that more and too pattern together in this respect is perhaps not very surprising, because as we have seen in Chapter 3, they have many semantic and syntactic similarities. This seems to provide evidence of yet another. Consider these sentences:

138. a. Too much poison for the nervous system to handle it killed the patient.
b. *Too much poison killed the patient for the nervous system to handle it.

139. a. More water than the spillway could handle finally undermined the dam.
b. *More water finally undermined the dam than the spillway could handle.

In these cases the underlying form is exactly the meaning given in the acceptable (a) versions, viz.:

140. a.' The amount of poison which killed the patient was too great for the nervous system to handle it.
b.' The amount of water which finally undermined the dam was more than the spillway could handle.

What seems to be happening is that so and enough used quantitatively can have limited scope, i.e. limited to that of the head item. Therefore, when there is a conflict between the asserted result and the remainder of the predication in the sentence as when the result complement is

moved outside of the scope of the modifier, then anomaly results. However, more and too seem to have only wide scope which always includes the main predication of the surface main clause; this wide scope is captured by the higher predicate analysis which puts all of the surface main clause within its scope domain. This was the same kind of arguments about quantifier scope which motivated the Lakoff-Carden higher predicate analysis of quantifiers.

What then are we to conclude about all of this with respect to Celce-Murcia's analysis of complex EXTENT? It seems to me that her analysis is most attractive for the comparative itself alone for the reasons she gives about its structural analysis. This analysis of scope provides additional support for her analysis of the comparative, and provides some support for such an analysis of too, although her analysis of too is not as structurally compelling as it is for more.

However, I have argued that the argument from structure is not totally compelling because it is possible to think of than as being both prepositional and complementizing, exactly as it is possible to think of for in the for-to complementizer as being both prepositional and complementizing.

We saw further that assuming a higher predicate analysis made for very torturous underlying structures when more than one EXTENT marker served to modify the subject of a sentence. Furthermore, we saw that a higher predicate analysis posits several intermediate structures which never show up as surface forms. While this alone was not considered destructive of the argument, it was an undesirable outcome, if it could be avoided. Finally, it has been shown that a higher

predicate analysis has serious shortcomings with respect to the analysis of so and enough used quantitatively.

If we agree that both quantity and degree should be incorporated into the same analysis--and Celce-Murcia clearly does--then all of the complex forms should have the same analysis if it is at all possible. If one wants to capture the many parallels in function and distribution that the complex EXTENT modifiers have, then they should have the same analysis. And finally, if one agrees with my previous argument that an abstract analysis of simple EXTENT is totally untenable, then there seems to be only one conclusion possible. We must reject the higher predicate analysis of EXTENT, both in its simple and complex forms.

4.22. Bresnan's (1973) Analysis

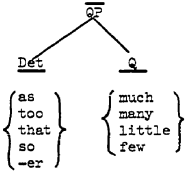
Bresnan (1973) proposes an anlysis which is similar in many ways to the one which I tentatively sketched at the end of Chapter 3, namely that the complex EXTENT consists of a combination of EXTENT + EXTENT + HEAD. However, the arguments which she uses for her analysis are quite different from the arguments which I gave in Chapter 3; they are also different in many respects from the additional arguments I will make for my own analysis in the next section of this chapter.

Most of Bresnan's arguments hinge on a much too limited set of data. I will give a reasonably lengthy discussion of her analysis and argumentation because it represents the other extreme of the abstract position just analyzed, and because it does try to deal with the full range of modification types which we have been analyzing under the rubric of complex EXTENT.

Historically, Bresnan's analysis derives from Bowers (1968),[12] who was the first to my knowledge to bring so, too, enough and more under the same analysis. He restricted his analysis to degree cases, not noting the quantity parallels,[13] which Bresnan, like Celce-Murcia, does note. Bowers was also working in the $\overline{X}$ convention of Chomsky (1968), as we will see Bresnan is. I am restricting my discussion to Bresnan's analysis because she goes beyond Bowers and avoids some of the problems which were present in Bowers' earlier analysis. Certainly, both Bowers' and Bresnan's analyses are in the same spirit.

As noted, working in the $\overline{X}$ convention of Chomsky (1968), Bresnan postulates an underlying structure like A for both the degree and quantifier constructions, along with the further morphological derivations given in B:

A:



B:

more < -er {much, many}

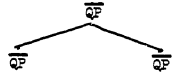
less < -er little

fewer < -er few

The $\overline{QP}$ is a 'temporary convenience' awaiting further research on quantifiers, partitives and adverbs for further specification. The Det in (A) Bresnan uses as a replacement for what Bowers, following Chomsky, called a specifier, which in nominal constructions was the determiner. Bresnan provides for multiple modification, e.g.,

as much too much, etc. by a possible base configuration like:

C:



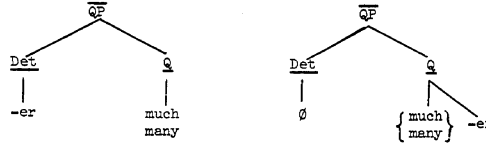
The fact that -er is a determiner in the $\overline{QP}$ construction and is co-equal with as, too, that, so, (abbreviated hereafter as a class by SO) explains the impossibility of *as more, *too more, *that less, *so less, etc. She postulates a much deletion rule which will delete much in the environment immediately preceding adjectives and adverbs dominated by the node AP (Adjective/Adverb phrase). This rule accounts for ungrammatical cases like (141) while allowing cases like (142):

141. *as much tall --> as tall
*so much happy --> so happy
etc.

142. as much bread
so little bread
too many people
etc.

She postulates a second rule I will call -er attachment which moves the -er from the determiner and attaches it as a clitic to a quantifier, i.e.:

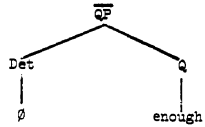
143.



After this much + -er and many + -er become more by suppletive lexical rules.

For reasons she never fully explains or justifies, she chooses to treat enough as different in underlying structure from more. Enough is treated as a quantifier itself with a Ø determiner, i.e.:

144.



Since enough for her is subcategorized for a Ø determiner, this automatically accounts for the inadmissability of *enougher, *more enough, *as enough, etc., since -er, as, etc. would never be allowed selectionally as the determiner for enough. This is the only evidence she gives which might be construed as an argument for postulating an underlying difference between more and enough.

By ordering the much deletion rule after -er attachment, she proposes to capture a number of facts: it will predict the contrast between much and the following adjective, i.e. the configuration after attachment will be much + -er intelligent and the environment of an immediately following adjective for much deletion will not be satisfied, and the rule will not operate. And in combination with a rule of of insertion which inserts an of when any Q occurs before a det N environment, and a rule of enough permutation which exchanges enough and an immediately following Ad or N (obligatorily for Ad, optionally for N) she proposes to account for several other distributions. Thus, with these two rules she proposes to account for the following

distribution of grammaticality:

145. a. *She's enough tall --> ... tall enough
(enough permutation)
b. *We ate enough the pudding --> ...enough of the pudding (of insertion)
c. *We ate the pudding enough
(permutation does not occur from the first configuration in (b) because of the intervening determiner between enough and N)
d. We ate enough pudding --> ... pudding enough.
(both forms OK because enough permutation is optional before N)

By expanding the Det N environment to include Det Ad in the enough permutation rule she proposes to account for the ungrammaticality of *too tall enough and the acceptability of enough too tall in pairs of sentences like:

146. She's just enough too tall to be disqualified -/->
*She's just too tall enough to be disqualified.

because too (of the same class as -er, so, and as) is an underlying determiner and intervenes between enough and the adjective tall preventing enough permutation just as the determiner in enough (of) the pudding in the NP prevented permutation to *the pudding enough.

Bresnan bolsters this argument by noting what she sees as parallels in the nominal modification system of $\overline{NP}$. She notes the following distributions of grammaticality:

147. a. that reliable a man
b. *a that reliable man

148. a. too reliable a man
b. *a too reliable man

149. a. as reliable a man
b. *an as reliable man

150. a. so reliable a man
b. *a so reliable man

151. a. ?more reliable a man
b. a more reliable man

152. a. ?reliable enough a man
b. a reliable enough man

and 'guesses' that it is the empty determiner node distinguishing more and enough (after -er attachment and the lexicalization of more) from

the SO cases; that is, more and enough can occur inside the NP because there is an empty determiner slot for the indefinite article to fill. She finds support for this by noting the behavior of more and enough when the determiners any and no are available in the empty dterminer slot, viz.:

153. a. John isn't any more reliable a fellow than Bill.
b. *John isn't an any more reliable fellow than Bill.

154. a. John is no more reliable a fellow than Bill.
b. *John is a no more reliable fellow than Bill.

In other words, when the determiner slot is filled by any or no, which can 'cooccupy' the determiner slot, more and enough behave precisely like the filled determiner SO items of (147) through (150) above. This then for her is corroborative evidence that more and enough, while different at some level of analysis, are alike after -er attachment in having an empty determiner node, a fact which has further syntactic consequences.

And finally Bresnan derives degree such from so (much) by the rule so --> such / ____ NP. She notes all of the alternation environments which we discussed in Section 3.11.12. Further, she claims as additional evidence the fact that not only do 'indigenous' so and such alternate, so do the 'negatively conditioned' so and such. She claims that one so is a negatively-conditioned version of an as in such sentences as:

155. a. It was $\left\{\begin{matrix}\text{as}\\ \text{*so}\end{matrix}\right\}$ awful a picture as it first seemed.
b. It wasn't $\left\{\begin{matrix}\text{as}\\ \text{so}\end{matrix}\right\}$ awful a picture...

and that such shows the same alternation, e.g.:

156. a. *It was such an awful picture as it first seemed.
b. It wasn't such an awful picture as it first seemed.

For Bresnan the degree character of such derives from the underlying much in the $\overline{QP}$. She is thus able to account for the different readings of a sentence like:

157. Hilda is such a scholar.

a. Hilda is such [so much of] a scholar (that all her work is impeccable).
b. Hilda is such [the kind of] a scholar (as you were speaking of just now).

The (b) version can have an unspecified AP, while the such in the (a) reading must derive from so much with the much being deleted under certain conditions--not the same as those of the much deletion rule discussed earlier--and then the suppletion rule of so --> such before an NP.

Bresnan's analysis is very neat and she has skillfully interwoven a number of factors together in related ways. Unfortunately, most of it doesn't work or works only in non-explanatory ways.

First of all is the fact that we noted in Section 3.32: there are adjectives and adverbs (including predicative prepositional phrases) which allow the Q elements, notable such adjectives as afraid, ablaze, etc. In some cases the Q element is even required. So Bresnan's much deletion rule, which is written to apply categorically before all AD elements, is not correct as formulated; it will have to be restricted by some sort of exception apparatus. However, despite making Bresnan's deletion rule weaker, this fact does bolster her postulation of an

underlying much--that is, there are AD environments where much does in fact surface.

Second, and considerably more important, Bresnan's treating more and enough differently in underlying representation is entirely unjustified. The one fact which she uses to justify the difference, i.e., that *as enough, *so enough, *enougher, *more enough, etc. don't occur because enough is selectionally restricted to a Ø determiner, is simply an artifact of this analysis. If we look back at Table A and the discusiion in Section 3.13. on page 212, we are reminded that there are a number of selectional restrictions holding between the various EXTENT modifiers, both simple and complex. These restrictions are indeed selectional and reflect underlying semantic restrictions on what can modify what due to a dynamic versus stative distinction, with enough being stative and thus unable to take change of state modifications. To try to explain the non-occurrence of *so enough, *too enough, *more enough, etc. as resulting from an obligatorily empty determiner node is to totally ignore a host of selectional restrictions holding between these modifiers in their relationships to each other and to other modifiers. For example, there are a number of simple degree modifiers such as rather, perfectly, utterly (all three of which she lists under adverb as what 'seems to be a set of special intensive words (292)'), a lot, lots, a bit, etc. which cannot modify enough, just as so, too, and more cannot. Do we want to attribute this to the empty determiner position? It is possible given Bresnan's $\overline{X}$ analysis, because the special intensive words occupy precisely the same position and play the same role in AD phrases as the

determiner does in the QP and NP, so she could rule these out by saying that a specifier element from one class cannot fill this determiner slot because enough is subcategorized for a Ø determiner. I think we would not want to do this, because there are some of these types of intensifiers which can modify enough, e.g., really enough afraid, certainly enough ablaze, etc. It is obvious that the distributions of intensifiers with enough has to do with selectional properties--not with a purported empty determiner slot. I think precisely the same thing is true with *so enough, *too enough, *enougher, etc., and this is supported by the very regular correspondence of modifiers which can modify enough, so, and as versus too and more illustrated in Table A in Section 3.13. on page 212. In this case Bresnan's analysis has actually obscured even more fundamental and regular correspondences.

Just how artificial her analysis of enough is shows up in her use of the determiner status of SO elements to prevent such constructions as:

158. a. She's just enough too tall to be disqualified.
b. *She's just too tall enough to be disqualified.

Recall that she accounted for the unacceptability of (b) by extending the environment for enough permutation to cover both enough NP constructions and enough AD. Thus she claimed the enough in *enough the pudding did not permute to give *the pudding enough because of the intervening determiner between enough and the noun pudding. Another rule is also required to insert an of giving the acceptable enough of the pudding. And she claims that in (158) the too in enough too tall is also a determiner, and this is also what blocks enough permutation, thus ruling out *too tall enough.

This is wrong on two counts. First, the less serious fault: according to her analysis, the comparative marker -er which surfaces either as enclitic -er or more is also a determiner in the QP, just as too is. Therefore her analysis as stated should predict enough permutation when modifying a comparative with the enclitic -er attached to the adjective, as in taller, rather than when it attaches to much giving derived more. The reason for this is that even though -er starts out in the determiner, it is moved out and attached either to the much, if much has not been deleted and much-er becomes more; or if much has been deleted, -er will become attached to the adjective. Thus, while too, remaining in the determiner is available to block permutation, -er will not be if it has been attached to the adjective. This would then predict that enough should be able to be permuted to follow -er comparatives. Consider these sentences:

159. A: You can't be much taller than 5'8" and be acceptable.

a. Well she's just enough taller to be disqualified.
b. *Well she's just taller enough to be disqualified.

(b) is clearly ungrammatical, despite the fact that the -er has been moved out of the determiner slot and is no longer available to block enough permutation.

Bresnan's obvious answer to this would be that enough permutation must be ordered before -er attachment. This would deal [illegible] the problem. But it is totally ad hoc and ignores the real explanation. The ungrammaticality of *too tall enough versus the acceptable enough too tall is due to the fact that too (and more and many other intensifiers such as very much and extremely) cannot modify enough (or so, or as or

the most), while enough and very (much), extremely, so (much), and too (much) can modify too and more. Also, in addition, *too tall enough is basically a modificational relationship of *too enough tall and is bad for exactly the same reasons such a modificational structure would be ruled out in situations where enough permutation is not required, namely before nouns, e.g.:

160. I think I've had { enough beer / too much beer / *too much enough beer / *too much beer enough } .

(cf He drank { enough too much beer / enough beer too much } { to walk home by himself. / for the cops to pick him up. }

161. Did you buy { enough bread / more bread / *more enough bread / *more bread enough } ?

(cf Did you buy { enough more bread / ?enough bread more } to make 50 sandwiches?

The reasons for these restrictions on modificational possibilities we have already discussed. Once again, Bresnan's use of the determiner to account for a distribution has led to a serious distortion of the data--i.e. claiming that enough too tall and *too tall enough represent essentially the same modificational pattern, when in fact they represent entirely modificational structures, and the distribution of grammaticality is accounted for by a much deeper meaning generalization.

Aside from the question of distribution, there is a deeper question involved here which Bresnan's analysis obscures. Enough usually follows adjectives and adverbs which it modifies. Too and more usually precede such heads. Why then does enough precede too and more in constructions

like enough too tall and enough more intelligent and enough taller? The reason for this seems clear, at least from the viewpoint of some notion of processing or perceptual strategy. As we've noted, the modification possibilities between enough (so, as, etc.) and too and more are one-way--only the enough group can modify too and more and not vice versa. Witness so much taller versus *more so tall; as much taller versus *more as tall, etc. All of the complex modifiers which can modify too and more occur before their heads, i.e., so tall, as tall, etc. Only enough normally follows. If the relationship enough too/more X were allowed to remain too/more X enough with enough in its usual post-position, there would be some possible confusion about the modificational structure. Viewed in terms of processing, it would mean that relating the two different modifiers would have to be delayed until enough had been processed before being able to establish the appropriate hierarchical relationship. This is of course not impossible nor unknown in linguistic processing: many structures require this kind of delaying of processing of units before hierarchizing them, one clear example being the respectively construction. But in this case, there is already an overwhelming pattern preponderance of left-to-right modification, e.g., so much+ too + tall. All the other cases of this pattern have the superordinate modifier before the head. If enough remains in its usual post AD position, there is great irregularity. Thus what appears to have happened is that the language has simply adopted the logical (in both of the senses) relationship for enough under these circumstances and doesn't permute it. Since enough can precede

some heads, e.g., enough afraid, enough in trouble, enough bread, there is even a surface precedent for this. Of course none of this, inasmuch as it may make sense from a perceptual point-of-view can be captured in a mechanical, formalistic way. And certainly Bresnan's account tends to obscure even the basic process involved.

We noted earlier at the examples (147) through (152) that Bresnan attempts to account for the distribution of grammaticality in such sequences as so reliable a man versus *a so reliable man and ?more reliable a man versus a more reliable man by using the empty determiner node of enough and more (after -er attachment has moved it from the determiner). Thus a more reliable man is possible because there is an empty determiner node for the article a to fill; but with so this is not true and we don't get *a so reliable man because we would have two determiners in the determiner slot: a and so. However, this ignores an enormous amount of data which bears on this issue.[14] Consider these sentences:

162. a. *He's a too tall man for this suit.
b. ?He's got a too well-known face for this film.
c. That's a too severe cut for her face.
d. That's a too severe budget cut for this year.
e. That's a too absurd proposal to even be considered.

According to Bresnan, all of these should be ungrammatical for only one reason--because both too and a are determiners, and both should not occur together. And sentences with the too phrase positioned before the NP, e.g., (c') too severe a cut will all be better.

However, I find only (a) and (b) bad, and the remainder all OK.[15] I think the reason that (a) and (b) are bad has to do with prosody--they both allow three or more main stresses to fall together, i.e.

a too tall man, a too well-known face. Actually, as I've indicated by the (?) in (b), I find it verging on acceptable, perhaps because of the break from primary to secondary stress on well. The pre-NP versions of (a) and (b) would be much better because they break up this three main stress pattern, i.e. too tall a man and too well-known a face. The others I find acceptable, although I may have a preference for the pre-NP version in some of the cases. At least one reason that (c) -(e) are better than (a) and (b) is that the stress patterns with these particular words don't give more than two main stresses together, e.g., a too severe cut and a too absurd proposal. I have little doubt that there are many other things at work here, possibly including contextual and presuppositional factors which might come into play. But what does seem absolutely clear is that the straight grammaticality assignments on which Bresnan built her argument are highly doubtful. Now consider these sentences:

163. a. She's a more odd girl than any other I've ever known.
     b. She's more odd a girl than any other I've ever known.

164. a. She got a more severe cut than I would have recommended.
     b. She got more severe a cut than I would have recommended.

165. a. She's a more serene girl than I had imagined.
     b. She's more serene a girl than I had imagined.

166. a. She's a more serene girl than I remembered her to be.
     b. She's more serene a girl than I remembered her to be.

167. a. The President got a more severe budget cut than I thought possible.
     b. The President got more severe a budget cut than I thought possible.

According to Bresnan's analysis, all of the (a) versions should be more acceptable than (b) versions because more has an empty determiner slot,

which the indefinite article can fill. However, I find (163.a) with the irregularity compared odd much worse than the (b) form,[16] the reason being due to the three successive main stresses in (163.a).[17] And I find the (b) version of (166) less acceptable than the (b) version of (165), not because of anything about determiners, but I think having to do with the meaning differences between imagine and remember. Imagine in (165) would imply that I did not know the girl and have no preconceptions, where remember in (166) would imply previous knowledge. And with remember, I find putting the indefinite a girl together somehow strange since it shouldn't be indefinite, but the version of (166.a) with the indefinite article separated from its head noun seems less restricted. With the sentences in (164) and (167), I don't find enough consistency of judgement to make clear statements of preferred grammaticality.

Now consider similar cases with enough, which according to Bresnan's analysis should make cases with the modifier inside the NP more acceptable than the ones outside the NP for the same empty determiner reason as with more:

168. a. I believe he's an odd enough man to do that.
     b. I believe he's odd enough a man to do that.

169. a. That's a severe enough cut to really make changes.
     b. That's severe enough a cut to really make changes.

170. a. Helen's a serene enough person to handle the problem.
     b. Helen's serene enough a person to handle the problem.

171. a. We just got a severe enough budget cut to cause problems.
     b. We just got severe enough a budget cut to cause problems.

Contrary to Bresnan's predictions, (168.b) seems better to me than the (a) version. I assume that the reason for this is similar to the cases with more: the (a) version allows two primary stresses to fall together, and only a single unstressed syllable separates them from the third primary stress on odd; the (b) version creates an iambic pattern on ěnóugh ě mán. With the other examples, I fail to detect enough difference in acceptability to make any strong preference assignments. Certainly, the (a) versions, which Bresnan's analysis predicts will be better, do not seem clearly better to me.

Finally Bresnan's supporting argument for her 'guess' about the empty determiner node explaining why more/enough behave differently from so/too, etc. doesn't work consistently either. Recall that we noted the following distributions:

172. a. John isn't any more reliable a fellow than Bill.
b. *John isn't an any more reliable fellow than Bill.

173. a. John is no more reliable a fellow than Bill.
b. *John is a no more reliable fellow than Bill.

and Bresnan accounted for them by noting that the (b) versions were ruled out because with any and no filling the previously empty determiner slot, more/enough acted just like too/so etc. which occupied the underlying determiner slot.

Again, there is more to it than Bresnan takes into account. First, note the stress patterns in the unacceptable versions. For reasons I don't understand at all, if the auxiliary is made more complex, in particular if a stressed auxiliary element such as participial been is placed immediately before the determiner, then the (b) versions improve

markedly,[18] e.g.:

174. a. John hasn't been <u>any more reliable</u> a fellow than Bill.
b. John hasn't been an <u>any more reliable</u> fellow than Bill.

175. a. John has been <u>no more reliable</u> a fellow than Bill.
b. John has been a <u>no more reliable</u> fellow than Bill.

I don't understand what is going on here. However, I suspect that it may well have to do with stress patterns of a much more complex nature than the ones we have looked at thus far.[19]

The important point made in all of this discussion is that Bresnan's analysis just does not work for either the <u>too</u> or the <u>more</u> types when put to the test with a wider range of data than that which she deals with. I can find almost no support for her analysis of the 'empty' determiner status of <u>more</u> and <u>enough</u> versus the 'filled' determiner status of <u>too</u> and <u>so</u>. There seem to be many things at work here, including euphony in stress; and the creation of semantic prominence caused by putting the modified adjective in front of the NP rather than in its more usual position between the article and noun. Historically, this variation of structure is a fairly recent development in the history of the language and began settling down into a regular pattern with <u>such + art + adj + noun</u> versus <u>so/too + adj + art + noun</u> as the dominant pattern only about 300 years ago, as the innovating indefinite article <u>an</u> became increasingly obligatory (for a fuller discussion of this historical development, see p. 372 of the Appendix). Given this fact, it is not surprising that there are still many factors which may be causing variations in the pattern, including relatively superficial things such as euphony.

Despite the attractiveness of Bresnan's proposal to derive such from an underlying so (much) by a regular suppletion rule, it appears that this cannot be done either, once we begin investigating cases where there is a potential conflict between the quantitative meaning of the much in the so much construction and its possible heads. Consider these sentences:

176. a. He is so much of an idiot that he doesn't even know it.
b. He is such an idiot he doesn't even know it.

Here there is no conflict; so much simply means the same thing so means before an adjective or adverb, e.g., so tall, so quickly, so much afraid: it is an intensifier for degree. Exactly the same is true with such: it intensifies the degree qualities of the degree noun. However, now consider these sentences:

177. a. ??That stream is so much of a trickle, it'll never fill the pond.
b. That stream is such a trickle, it'll never fill the pond.

Here the overt much goes against the small amount implied by trickle; such, on the other hand, brings out exactly that quality--such a trickle means a trickle so small. Now consider these sentences:

178. Carter's really in trouble,

a. he's got such a small majority of popular opinion to draw on.
b. *he's got so much of a small majority of popular opinion to draw on.

Again, with so much, there is a conflict in the quantitative much against the smallness of small. Such merely intensifies the degree of smallness.

Finally, with respect to this argument, there are a number of constructions, some perhaps collocational in nature, where <u>such</u> can be used and <u>so (much)</u> cannot, e.g.:

179. a. such an utter fool
     b. *so utter a fool

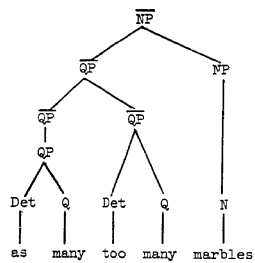
180. a. such a damned idiot
     b. *so damned an idiot

181. a. such a complete stranger
     b. *so complete a stranger

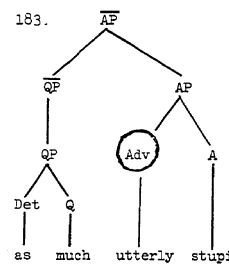
Thus according to Bresnan's analysis, there would be no way to derive the <u>such</u> forms, since their underlying forms would never be generated.

This brings us to another point about Bresnan's whole analysis of the complex EXTENT markers when they occur modifying adjectives which in turn modify noun phrases. In order to capture a number of generalizations across several different lexical categories, Bresnan is forced to posit a rather unnatural configuration for adjectives modifying nouns. Note first of all that Bresnan's analysis of multiple complex modifications involving adjectives and adverb phrases allows her to posit structures like the following, where the circled <u>Adv</u> in (183) is equal to the Det in (182):

182.

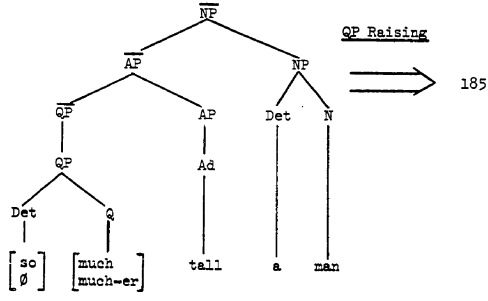


183.



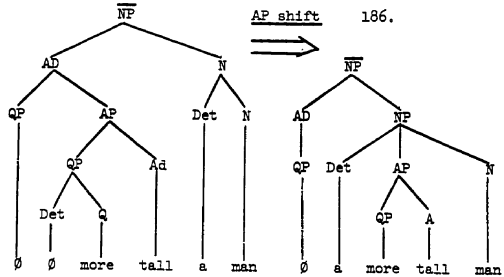
Here her basic specifier--head relationship works fine in terms of natural surface word orders--such word orders usually surface in precisely those ways. However, in order to continue with the underlying parallels for NPs she is forced to assume a very questionable order for complex modification of adjectives which in turn modify nouns. So for example so tall a man and a taller man are derived from a structure like:

184.



She notes that to derive such a tall man and a taller man will require different operations. For a taller man the whole $\overline{AP}$ must shift inside the NP, while for such a tall man, only the AP dominating tall will be shifted. To solve this problem she proposes essentially two rules: the first raises the QP out of $\overline{QP}$ just in case the determiner is empty giving the derived structure of (185), and then a second rule which she calls AP shift moves the now complex AP inside of the NP giving the derived structure of (186):

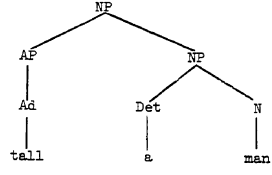
185.



To derive <u>such a tall man</u> only the <u>AP shift</u> would be necessary since <u>such</u> has an underlying <u>so much</u> source, a 'filled' determiner QP which would prevent QP raising.

The main problem with this solution, aside from the question of the 'empty' determiner part, which I think I have shown is unmotivated on other grounds, is the fact that such a solution will lead Bresnan to postulate an underlying (or perhaps recently derived, is she derives simple adjectives from relative clause sources) position of all attributive adjectives in nominal constructions as pre-NP in origin. Thus, for Bresnan, <u>a tall man</u> would derive from an underlying source something like:

187.



It is not clear to me why this should be so, except that such a configuration allows her to create parallels in $\overline{NP}$ with $\overline{AP}$ and $\overline{QP}$ when there is EXTENT modification of the pre-NP adjective. Aside from this, there is no reason of which I am aware--nor does she offer any evidence for it--that this should be in the configuration. Normally adjectives with or without various other modifications occur inside the the NP if there is an overt article, e.g.: a tall man, a very tall man, an absurdly tall man, a very, very obviously absurd, tall man, etc. The only time that the adjective (along with its attendant modifiers) is placed before the NP is exactly those cases of degree modification with such modifiers as so, too, as, etc. Furthermore, I have offered ample evidence that even this is not a consistent pattern, and that there are cases where an adjective modified by so, too, etc. can occur inside the NP, e.g.: a too severe cut, a so well-thought out plan, a so unexpected surprise (DW, 138) a too sensitive mouth (Georgette Heyer--Duplicate Death), etc. Bresnan could just as easily have dealt with the variations of modified adjectives, by assuming that the AP started out inside of the NP where it usually surfaces, and then used a pre-posing rule to move it outside the NP. She would not have had to have the ad hoc QP raising rule to account for a taller man, and she would have had a more natural--i.e. more consistent with surface structure--analysis. Thus, the only rationale for it is that it allows $\overline{NP}$ to generalize easily to parallel $\overline{AP}$ and $\overline{QP}$. This does not seem enough justification for such a position.

The remainder of Bresnan's arguments in this particular article hinge not really on her analysis of the complex EXTENT structures, but

on the fact that she has a deep structure source for a variety of different modificational structures--a position which I do not disagree with, as we will see in the next section.

4.30. A Syntactic Analysis of EXTENT at the Sentence Level

What follows is an attempt to provide a reasonably full account of what an underlying syntactic representation of EXTENT might consist of. This section is concerned primarily with the occurrence of EXTENT at the sentence level--that is in full self-contained sentential forms, excluding for the moment the rather rich anaphoric relationships which we have seen in operation in Chapter 3. However, in some of the examples anaphoric forms will have to be given due to the nature of their uses in the examples. These will simply be noted in passing and dealt with later.

The framework for the following syntactic analysis is a fairly ordinary transformational-generative grammar in the spirit of Chomsky (1965) but with the theoretical restrictions discussed below. Since I have rejected an abstract analysis for EXTENT in the earlier part of this chapter, it is obvious that I will be providing a more concrete underlying representation. While I will not be providing a very elaborate or formal set of rules for EXTENT, nor attempting to discuss their interactions, I would like to state what I consider are appropriate descriptive devices for syntactic analysis.

First of all I will operate with a syntactic <u>naturalness condition</u> in the sense that Postal (1968) and Kiparsky (1968) use it in phonology. I will adopt insofar as possible--ignoring morphology--the principle

that no abstract structure will be provided which does not have a surface manifestation in some environment. Also as far as possible I will avoid transformations. If I nominate a transformation, it will be because I am unable to find <u>any</u> difference in meaning, or I think it may be possible to state fairly clearly what the effects of the transformation are in term of presupposition, emphasis, etc. I will operate on the principle that transformational rules are not extrinisically ordered; that is, I will not attempt to resort to rule ordering to solve any problems of analysis. The reasons for these strictures have been debated widely in the literature of transformational grammar.[20] I choose them because, as I have continued to work with the complex behavior of EXTENT modification, I have become increasingly convinced that relationships which <u>might</u> be captured via the use of transformations, have become to some degree lexicalized; that is, it seems to me that an enormous body of EXTENT modification is collocational in nature. Therefore, I approach any transformational solution to an apparent regularity with a great deal of caution. Thus I have tried to restrict the descriptive power of the grammar which I am working with to the minimum. If there are <u>true</u> regularities which this limitation of the power of the grammar causes me to miss or overlook, I will be delighted to learn of them. However, as I tried to show in my critique of Bresnan, I think it possible to become a prisoner of one's own formalism and find regularities within a limited data, which a broader look would have shown to be only special cases--albeit perhaps important special cases.

Furthermore, I will not necessarily attempt to use or justify the $\overline{X}$ concention Bresnan uses, although I think there may be parallels which might make it viable. Inasmuch as I propose an analysis which is compatible with the $\overline{X}$ analysis, I will have offered support for it and will try to take note of it. Inasmuch as the analysis I offer fails to support such an analysis, it should constitute an argument, or at least provide a counter-argument, against it, and again I will take note of it. However, it is not my purpose to either justify or discredit the convention; I am concerned with attempting to account for the regularities and peculiarities of EXTENT modification. Extension of this to other areas of the grammar is another, no less worthy, project.

Turning now to the question of how we represent EXTENT in the syntactic component of the grammar, it seems clear that in terms of base rules, EXTENT must be introduced as an optional expansion of nominals and predicates; that is, that we will need PS rules something like:

A. NP $\longrightarrow$ $\left\{\begin{matrix}\text{(EXTENT)} & \text{NP} \\ \ldots\end{matrix}\right\}$

B. VP $\longrightarrow$ $\left\{\begin{matrix}\text{(EXTENT) PREDICATE...} \\ \ldots\end{matrix}\right\}$

The optionality of the EXTENT marker with nominals is to allow for the selectional fact that personal nouns in English do not take quantifiers, e.g. *<u>some John</u>, *<u>all Anwar El Sadat</u>, etc.; otherwise all nouns are quantified; if they are not quantified overtly in surface structure then there is an understood universal quantifier, e.g.:

188. The President picked his men carefully.
(<u>his men</u> = <u>all his men</u>.)

Rule (A), providing for EXTENT in nominals, does not reflect a great deal of internal structure that will have to be accounted for, in particular all of the partitive structures. I assume such structures and have little to say here about them.

The rule introducing EXTENT into the predicate is intended to account for all instances - both of quantity and degree - of EXTENT modification of the complete predicate, including predicative adjectives, predicate nominals, predicate adverbs, and various other verb phrase configurations, e.g.:

189. a. John is very happy.
     b. John is 6 feet tall.

190. a. My doctor is really a psychologist.
     b. My doctor is such a quack the AMA threw him out.

191. a. Our house is six miles down the road.
     b. Our house is far down the road.

192. a. The present so pleased Mary she sreamed with joy.
     b. Romeo rode his Honda more than he paid attention to Juliet.

Rule (B) shows EXTENT introduced in pre-predicate position. This is only a notational convenience; it of course usually does premodify predicate adjective/adverbs and nominals, but with full verb phrases the EXTENT marker more often follows the predicate as in (192.b). To be fully adequate Rule (B) would have to be able to provide for EXTENT in the verb phrase in all of the places and configurations described in Chapter 1 (1.30). That would be a fairly extensive study in its own right. And since I am mainly concerned with exposing the parallels shown in EXTENT modification, I will give only the very rough version shown in Rule (B), recognizing that it is substantially inadequate to

to account for the full distribution of EXTENT in the full verb phrase.

I assume attributive adjectives do not derive from predicative adjectives due to a number of well-documented problems of such derivations,[21] and that adverbs do not derive ultimately from adjectives, although both share many obvious characteristics. Therefore, it is necessary to introduce EXTENT modification with both adjective and adverbial phrases via a rule something like:

C. AdP --> (EXTENT) $\left\{ \begin{matrix} \text{Ad} \\ \ldots \end{matrix} \right\}$

where Ad serves as shorthand for both adjective and adverb. These then are the rules which introduce EXTENT into the base as optional modifications of all other lexical classes.

What then is the composition of EXTENT itself? First of all we have seen that EXTENT can modify EXTENT, so we must provide for recursion, e.g.:

D. EXTENT --> (EXTENT) EXTENT

This is intended to account for cases of genuine modification as in as much too tall or very nearly dead and not for iteration as in very, very tall, or many, many people, which I take to be a fairly low level process perhaps as much connected with phonology as syntax, as evidenced by the phonological constraints on iteration noted in Section 2.11.31.

Turning now to the introduction of simple quantity and degree modifiers. Quantity poses no special problems. However, degree does. Recall that we concluded in Chapter 3 that complex degree cases such as so tall that..., too much afraid to..., etc., should consist

underlyingly of two EXTENT markers--the intensive so, too, etc. and the unmarked, quantifier-like much, which would be deleted in appropriate environments, in particular before most adjectives, e.g., *so much tall --→ so tall, but so much afraid (optionally) --→ so afraid. However, when we examine many instances of simple degree modification, we find that even some of simple degree modifiers take the quantifier-like, much in some environments, e.g.:

193. a. She is very afraid of her husband.
     b. She is very much afraid of her husband.

194. a. *She is now pretty on her own.
     b. She is now pretty much on her own.

Furthermore, there are several degree modifiers such as a bit, a little, a lot, lots, etc. which are migrants to the degree camp from the quantifier camp, and which exhibit distributional parallels somewhat similar to much--that is they occur before the a adjectives, before prepositional phrases, and before comparative constructions, e.g.:

195. a. She is {a bit / a little} afraid of her husband.
     b. He has been {a bit / a little} under the weather lately.
     c. The new script is {a bit / a little / a lot / lots} better now than before.

What this suggests is that one component of EXTENT used for degree modification is quantifier-like--note, this does not say is a quantifier. Like Bresnan, I propose to identify this with an arbitrary name called simply Q when it is used for degree. When it occurs with quantifiable nouns and in measure phrases, this Q is in fact a real quantity marker. Thus the element Q would account for the quantifier-like much, a bit,

etc. elements in (193)--(195) and the true quantifier elements in such sentences as:

196. a. Carter has <u>ten</u> little liver pills.
b. Soloman had <u>many</u> wives.
c. <u>A little</u> gold is better than <u>much</u> wisdom.
d. I'd like <u>a bit</u> of that cheese.
e. <u>Lots of</u> people thought I was crazy when I decided to write about quantifiers.
f. <u>Few</u> Californians have too much gas.

197. Sam is <u>6' 6"</u> tall.

When Q occurs in degree modification there are selectional restrictions holding between it and the head item, as we have seen. However, there are also selectional restrictions holding between Q and what can in turn modify it. Thus we find distributional restrictions like these between the modifier preceding Q and the Q element:

198. a. <u>very</u> { much / *a bit / *a little / little } nicer than before

b. <u>quite</u> { *much / a bit / a lot / lots } under the weather

c. <u>rather</u> { ?much / a bit / a little / a lot / lots } nicer than before

We might note that this is similar to the kind of cooccurrence restrictions we noted in Section 3.13. holding between the complex modifiers like <u>more</u>, <u>so</u>, <u>too</u>, etc. in their varying abilities to take pre-modifications.

Thus far then we have established the need for Q as one constituent of EXTENT. How do we introduce the modifiers--both simple

and complex--like very, quite, really, almost, completely, rather, so..., such..., too..., enough..., more..., as..., that..., etc., and the EXTENT interrogative, how? I propose to introduce them through an optional expansion of EXTENT. It is not clear what to call this element. It would be misleading to label it degree because with quantifiers like so many, the so is not degree but a marker of extent of quantity. It is inaccurate to call it an intensifier because several such markers, e.g., rather, as, almost, and how are not strictly speaking intensifiers. I do not like Bresnan's use of determiner, because determiners have a very specific relationship to nominals and I think it is misleading to try to transfer it to the cases of EXTENT. I will follow Chomsky (1968) and Bowers (1968) and refer to these EXTENT markers as specifiers of EXTENT. This seems a reasonable choice in that they can be said to specify intensively, completively, comparatively, compromisingly, interrogatively (for how), etc.

Thus Rule (D) defining EXTENT should be further expanded as:

D. (revised) EXTENT $\longrightarrow \left\{ \begin{matrix} \text{(EXTENT)} & \text{EXTENT} \\ \text{(specifier)} & \text{Q} \end{matrix} \right\}$

In order to account for the differences between simple and complex cases the specifier would be defined as taking an optional complement, e.g.:

E. specifier $\longrightarrow$ specifier (complement)

and the complements would be the usual ones that are well attested elsewhere in the grammar, e.g.: that..., for-to..., than..., as..., etc., with for-to, than and as reflecting both their complement and

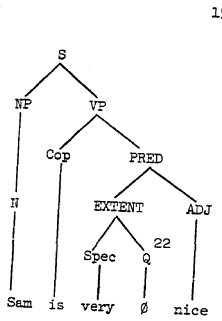
prepositional natures. Then the complex specifiers <u>such</u>, <u>so</u>, <u>too</u>, <u>enough</u>, <u>as</u>, <u>more</u>, etc., would be sub-categorized according to the complement types which they take.

It might be useful at this point to give some representative examples of underlying constituent structure of a variety of types of EXTENT modification as generated by these rules. The following sentences are illustrated in tree form below, with (199) serving to illustrate <u>degree</u> and (200) <u>quantity</u>:

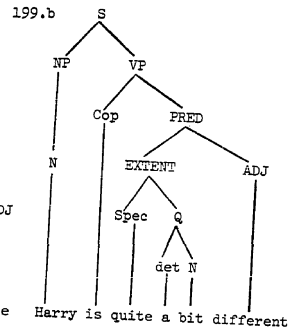
199. a. Sam is very nice.
b. Harry is quite a bit different.
c. Max was so mad that he bit his tongue.
d. Mary talked as much too much as Sam did.

200. a. We invited a few people.
b. We invited so many people nobody could dance.
c. More people came to the party than we invited.

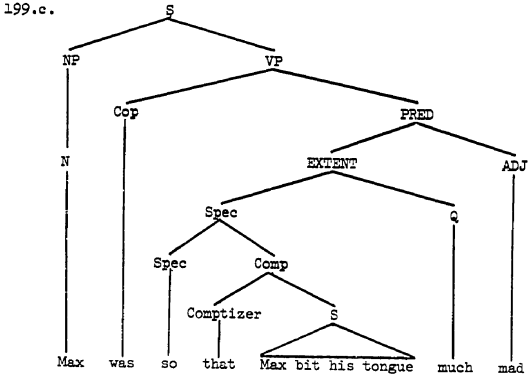
199.a.



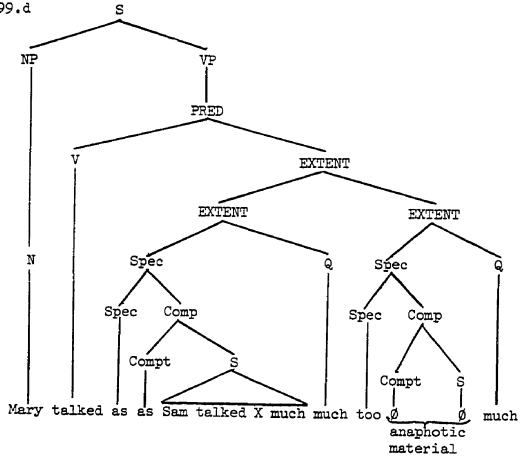
199.b



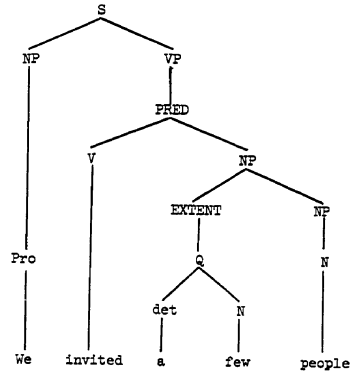
199.c.



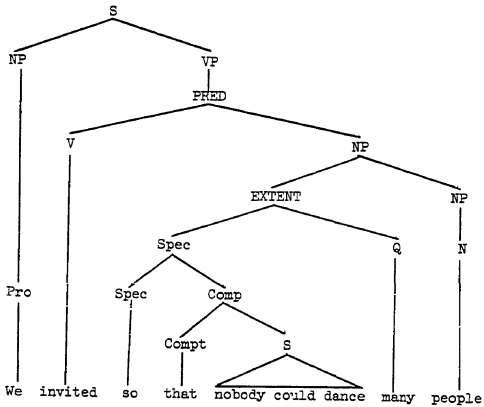
199.d



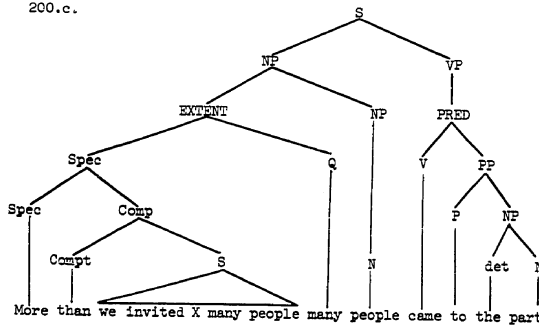
200.a.



200.b.



200.c.



With underlying forms such as these the only rule needed is Extraposition, which will extrapose complements to the end of their domains, either NP or S, as briefly discussed in Section 4.21. Associating the complement in deep structure as a constituent of the specifier and then extraposing it is nothing more than the transformational equivalent of saying these are correlative elements which have dependency and selectional restrictions with each other, even though they are usually discontinuous in surface structure.

An analysis such as the one described above gives us a very simple, symmetrical analysis of EXTENT as it is manifested in both degree and quantity usage. However, despite the symmetry and simplicity, there are a number of questions which might be raised for which the answers are not as clear as we might wish. One important question is: what criteria can we use to decide if a degree modifier is a specifier or a Q element? For example, in determining Q elements above we informally used the criterion of the ability to occur in environments parallel

to much (our Q element sine qua non), i.e., before a adjectives, prepositional phrases and comparatives. That seems to have worked with much, a bit, a little, lots, and a lot, all of which are obviously full quantifiers when used with nominals. However, what about two other modifiers which are quantifiers with nominals--some and all? Consider these examples for some:

201. a. He's some better this year than last, but not much.
b. *He's some {afraid of his wife. / in trouble with the police.}
c. He's {afraid of his wife / in trouble with the police} some.

The sentences in (201) would tend to support some as a Q element, except it would have to take into account that with prepositional phrases and a adjectives, some is better following the predicate than preceding it. This is of course true of the quantifiers which occur as attributed quantity of verbs and verb phrases, e.g.:

202. a. *They a lot talked.
b. They talked a lot.

203. a. *Max a lot visits his mom.
b. *Max visits a lot his mom.
c. Max visits his mom a lot.

This may well be an indication that some is still in transition from quantifier to degree modifier status, or perhaps is suffering from arrested development due to other some type alternatives--somewhat and something, e.g.:

204. a. He is somewhat {afraid of his wife. / in trouble with the police.}
b. He is {somewhat / something / *some} of an idiot.

All, however, clearly seems more like a specifier than a Q element, e.g.:

205. a. He's all worried now.
b. He's all afraid to say anything.
c. His eyes got all { big / *bigger } .
(But cf, He's all better now.)
d. He's all up in the air over this new development.

It can pre-modify adjectives other than just the a adjectives; and while it can modify comparatives, it shows restrictions having to do with what we noted as an accident/essence distinction in Chapter 2. Furthermore, all doesn't 'feel' quantifier-like in sentences like those in (205); it must be treated as a completely different lexical item from quantifier all.

Unfortunately, the question of criteria for distinguishing specifier from Q elements brings us back to the problem Bresnan's analysis raised about the status of more and enough. She analyzed them as different (at least at some level) from so, such, too, and as, basically as being more Q-like than specifier-like (determiner, for Bresnan). I argued in section 4.22. that most of her structurally related arguments were invalid. But what about the distributional arguments raised by our attempts to find a diagnostic for Q versus specifier? Consider these:

206. a. *I'm enough worried to stop smoking.
(cf OK...worried enough...)
b. I'm enough afraid of snakes to give them wide berth.
c. Max is enough in trouble now without any help from you.
d. Max is enough taller than Mary to marry her.

Here enough fulfills all of the distributional criteria for Q status.

Now consider examples with more:

207. a. I'm more worried now than I was before.
(cf also OK...worried more...)
b. She was more afraid yesterday than she seems today.
c. He's more in trouble now than before.
d. ?Max is more, more intrigued today than yesterday.

Except for the repetitiveness problem in (d), more also meets the distributional criteria for Q.

However, when we turn to other distributional criteria, we find more and enough patterning with the other complex specifiers--so, too, etc. Consider these patterns of pre-modification of elements which are fairly clearly assigned to Q status:

208. $\left\{\begin{matrix}\text{so}\\ \text{too}\end{matrix}\right\}$ $\left\{\begin{matrix}\text{much}\\ \text{little}\\ * \left\{\begin{matrix}\text{a bit}\\ \text{a little}\\ \text{a lot}\\ \text{lots}\end{matrix}\right\}\end{matrix}\right\}$

209. $\left\{\begin{matrix}\text{more}\\ \text{enough}\end{matrix}\right\}$ $\left\{\begin{matrix}* \text{ much}\\ \text{little (e.g. littler or more little; little enough)}\\ * \left\{\begin{matrix}\text{a bit}\\ \text{a little}\\ \text{a lot}\\ \text{lots}\end{matrix}\right\}\end{matrix}\right\}$

Here, with the exception of their failure to pre-modify the unmarked Q marker much, more and enough pattern exactly like the other complex specifier types.

What then should we conclude about the grammatical status of more and enough? Given the overall patterning, and the fact that more and enough both take complements parallel to so/too/as, and as we have seen, share many other syntactic, semantic and functional characteristics, it seems desirable if not absolutely compelling to consider them specifiers.

These occurrences before the Q environments could be accounted for by a postulated much filling the Q slot, e.g.:

210. $\left\{\begin{array}{l}\text{so}\\ \text{too}\\ \text{as}\\ \text{more}\\ \text{enough}\end{array}\right\}$ much $\left\{\begin{array}{l}\text{afraid}\\ \text{in trouble}\\ \text{taller}\end{array}\right\}$

and the obligatory deletion of much with more and enough. In fact, this may be no more than a notational equivalent of saying that more and enough are both specifying and quantifying.

Finally in this discussion of the Q elements, there is one thing which needs to be especially noted. We have commented repeatedly that with degree modification of adjectives, adverbs, predicate nominals, and verbs, the Q element will always be much, unless it is otherwise specified. Much is the unmarked Q form for degree modification of predicates. This is of course paralleled by the well-recognized unmarked value of much/many in quantity.

How can we account for this? At least one way of indicating this predictable nature of much/many with EXTENT would be to have a lexical convention that will always fill an empty Q node--a Q where another lexical Q element has not been provided--with much/many. That is, if a marked--i.e. lexically meaningful--Q form is not provided, the much/many would be inserted by lexical convention, thus offering at least a notational way of explaining the predictable nature of the unmarked Q forms. Thus so much afraid and so many people would have the respective forms so Q afraid and so Q people before the much/many was inserted by the convention. This would reflect that the Q is an obligatory element when it is in the presence of specifiers of EXTENT.

This way the unmarked Q element would be seen as arising from its occurrence in environments which demanded a surface Q element, and not from some lexical necessity which determined meaning. Of course, then it could still be necessary to have deletion rules which would delete this unmarked Q element in the appropriate environments, thus giving us, for example, very much afraid and very much nicer, but very nice and very tall.

Assuming now that we have provided for EXTENT in phrase structure by the rules (A--E), what other rules are necessary to give us appropriate surface forms, and what restrictions are there on these rules?

The most obvious rule needed to produce appropriate surface forms is a rule of Extraposition, which will move the complements out of their underlying positions as constituents of the various complex specifiers so, too, more, etc. So, for example, Extraposition is needed to change the underlying (a) form to the surface form given in (b):

211. a. Max was so--that his face turned red--mad.
     b. Max was so mad that his face turned red.

It might be noted that it could be argued that positing an underlying form approximating (211.a) violates the syntactic naturalness condition established in the first part of this section (4.41); this condition specifies that no underlying forms will be posited which don't have surface manifestations. However, with the possible exception of the so...that construction, all of the other specifier-complement combinations do show up in some surface structures in direct proximity

to each other, e.g.:

212. a. Romeo likes Juliet too much for his own good.
b. Max is tall enough to marry Gertrude.
c. Louise wanted to catch a fish as much as she wanted to catch Harry.
d. Sam likes ice cream more than he likes tapioca.
e. Harriet's scream scared me the most that I have ever been scared.

Such can also occur in direct proximity to its complement, but this use seems to be confined to identificational uses,[23] e.g.:

213. If I had a calculator such as the one advertized, I could do these problems in minutes.

And even so can occur in direct surface proximity with a that clause when it is modifying a verb phrase, but there will be a comma pause in intonation to indicate its usual discontinuous nature, e.g.:

214. She angered him so, that I thought he was going to hit her.

The comma pause in (214) is almost certainly used to prevent confusion with the conjunctive so that as in, for example:

215. She talked to him so that he wouldn't get mad.

This analysis is bolstered by the fact that if so much is used rather than the bare so, the comma pause is not needed for the complex degree construction, e.g.:

216. She lied so much that you couldn't believe a word she said.

Thus, positing an underlying position for the complements as constituents of the specifier and then moving the complements to the end of some domain by a rule of Extraposition has some surface structure validity in that the complements do show up in some surface structure configurations as proximate constituents with the specifying modifiers. However, it is worth recalling from the discussion in Section 4.21. that even describing the domain for Extraposition is itself no simple

task. I do not intend to discuss the problem here. Let it be noted only that, if we assume a rule of Extraposition, there is still much to be said about where the complement in the complex EXTENT construction will end up. We have only scratched the surface of this problem.

The rule that Bresnan called enough permutation, I assume more or less in the form she gave it, but with the noted proviso (Section 4.22) that it can occur before some adjectives and adverbs (e.g. enough in trouble). Bolinger notes a difference with quantifying enough used with nominals depending on whether enough is pre-modifying or post-modifying. He claims that sentences like (a) and (b) differ in presuppositions, (DW, 49), e.g.:

217. a. Are you sure you have enough money?
(the matter is raised for consideration)
b. Are you sure you have money enough?
(the matter is raised for re-consideration)

While I wouldn't be surprised if we do find differences in pre-modifying and post-modifying enough, I don't get the differences in readings that Bolinger gets--or at least with enough consistency to feel I know what is going on. I therefore assume a rule of enough permutation which moves enough from a pre-modifying position to a post-position under the grammatical considerations already discussed at length in Section 4.22.

There is one particularity intriquing problem involved in a transformational analysis of EXTENT. This problem has to do with EXTENT modification of predicate nominals whic also contain an attributive adjective. Recall that if an adjective is modified by certain of the EXTENT specifiers and that adjective in turn is an attributive adjective modifying a noun, the attributive may occur

either inside the NP or in a pre-NP position, e.g.:

218. a. *He is a so tall guy he'll easily make the team.
b. He is so tall a guy he'll easily make the team.

219. a. The Chevy is a more powerful car than the Ford.
b. The Chevy is more powerful a car than the Ford.

220. a. *How a tall man is your father.
b. How tall a man is your father.

We saw earlier in Section 4.22. that specifying exactly what the conditions are which govern this distribution is no simple task, and that it may be partly a matter of acceptable stress patterns, and possibly there may also be semantic factors involved as well. Since I have assumed that attributive adjectives modifying nouns are generated in their usual surface position, i.e. between the article and the noun, e.g., a tall guy versus *tall a guy; a powerful car versus *powerful a car, I am forced to allow for a rule of attributive fronting which will, under certain circumstances not given here in any detail, move specified attributives from inside the NP to a position directly in front of the NP, as in the (b) examples above.

Unfortunately, this approach poses a very severe problem of analysis, and it is a problem which I have been unable to find a suitable solution to. Here I simply outline the problem.

As noted above, adjectives can be modified for EXTENT by Rule (C), which a-lows adjective phrases to be optionally modified by EXTENT. Presumably, the (a) sentences of (218-220) represent the approximate post-lexical underlying sentences with the specified attributives arising from Rule (C). Our rules also allow for a predicate nominal to be modified for EXTENT. This is provided for by Rule (B), and we get

such sentences as:

221. He is so much of a fool he'll believe anything.

222. He is more of a quack than anything else.

223. How much of an idiot do you take me for?

Given this, consider sentences like these:

224. a. He's so much (of) a crafty politician they'll never catch him.
b. He is so crafty a politician they'll never catch him.

225. a. Max is more (of) a tricky politician than I imagined.
b. Max is more tricky a politician than I imagined.

Presumably the (a) and (b) versions of (224) and (225) have different underlying forms, with the (a) versions originating as degree modifiers of predicate nominals and the(b) versions as degree modifiers of attributive adjectives with the attributive fronting rule having applied. The problem, of course, is that under the usual assumptions of a transformational grammar, if surface forms have different underlying structures, they should have different meanings. Here, however, any meaning difference is extremely difficult to detect. There may well be some slight difference in emphasis or scope but they are extremely difficult to pin-point; they are on the order of magnitude usually associated with supposedly 'stylistic' transformations. There is one further thing to be noted; with the comparative, it is possible to find slight differences in meaning or even in grammatical distribution. Consider these:

226. a. Nixon is more of a tricky politician than Agnew.
b. Nixon is a more tricky politician than Agnew.
c. Nixon is more tricky a politician than Agnew.

227. a. Max is more (of) an accomplished pianist than a flautist.
b. Max is a more accomplished pianist than a flautist.
c. Max is more accomplished a pianist than a flautist.

228. a. This is more (of) a powerful car than an economical one.
b. This is a more powerful car than an economical one.
c. *This is more powerful a car than an economical one.

The interesting thing here is that the (a) and (b) versions, which supposedly derive from different underlying forms, seem to have more in common both in meaning and in grammatical distribution than the (b) and (c) versions, one of which is presumebly a transform of the other. Part of the reason for this is no doubt involved with the possible scope of the more comparative form. In these cases, as long as the adjectives are inside of the NP, it is more or less irrelevant whether more is inside or outside of the NP. However, if the adjective is fronted to the pre-modifying position, then we have slight differences in meaning and perhaps differences in grammatical acceptability because of the position of the adjective itself, rather than the position of the specifier.

I have spent more time than I care to think about trying to make sense of the whole set of problems involved in accounting for the distributions and meanings of these two specifier/attributive constructions (including the stress-related problems discussed in 4.22). I cannot say that I am much closer to an answer now than I was when I began. I hope that I have at least pointed out the major problems involved in the syntax. However, they are still problems in search of solutions.

We noted earlier that questions about EXTENT were unique among adverbial question types in that they obligatorily moved all of the matter in the modified atructure to the front of the construction for the question, e.g.:

229. a. John is how tall?
b. How tall is John?
c. *How is John tall?

230. a. He drank how many beers?
b. How many beers did he drink?
c. *How did he drink many beers?
(* = in the appropriate sense)
d. *How many did he drink beers?

Thus the question rule for both quantity and degree can be stated fairly simply by referencing the EXTENT specifier and all of the items of the node dominating it.[24] At this point we should note that there is a question structure in the nominal system which shows this same behavior --the which question, e.g.:

231. a. You have the tickets to which man?
b. Which man did you give the tickets to?
c. *Which did you give the tickets to man?

Here it seems clear that the which arises in the determiner system of the NP and that it is specifying in a manner parallel to the specification of how in the EXTENT construction. This is one place where the $\overline{X}$ convention might well reveal a true structural parallel between the role of the determiner in the NP and the specifier in the EXTENT construction.

One final construction which needs some discussion had to do with the rule (rules?) that are needed for what I have referred to by the covering term modified constituent pre-posing (Section 3.31.). This process moves specified EXTENT elements and the specifiers to the

front of the sentence and triggers subject/aux inversion, e.g.:[25]

232. a. The news was so shocking that he almost fainted.
b. So shocking was the news that he almost fainted.

233. a. They had had such a battle that the room was a shambles.
b. Such a battle had they had that the room was a shambles.

234. a. This decision was more risky than any they had made before.
b. More risky was this decision than any they had made before.

The semantic effects and the conditions governing this pre-posing process and the structural and functional constraints governing its use are far from clear. Most grammarians have assumed that it serves some sort of 'emphatic' function.[26] While several investigators have examined this type of construction (along with several other types) within the context of sentence grammars, in particular their occurrence in embedded sentences, to the best of my knowledge no one has identified discourse constraints on their use--except perhaps that they would be used only in an environment where emphasis would be appropriate. In Gary (1976) I suggested that since such constructions were already emphatic in some sense, perhaps we would never find discourse environments which the pre-posed versions would not occur in. Essentially what I was suggesting at that time was they served a stylistically emphatic function rather than some more discourse sensitive function. However, it now appears that this is not true--at least for one of the types of construction. A pre-posed comparative appears to have more extensive semantic functions than previously noted. Compare the following sentences (the # used means unacceptable

in this discourse context):

235. Among the 742 patients on the placebo, 44 cardiac deaths occured, while among 733 on Anturane, only 24 died from coronaries.

a. More significant was the reduction among the Anturane group in sudden coronaries.
b. #The reduction in sudden coronaries in the Anturane group was more significant.
c. The reduction in sudden coronaries in the Anturane group was even more significant.

What seems to be happening is that if the meaning in the compared item is contrastively emphasized, equivalent to the meaning of the emphatic even in (c), then the pre-posed version is required, as indicated in the unacceptability of the non-pre-posed (b) version versus the acceptability of the (a) pre-posed version. If the meaning of the even is not present, or is contraindicated, then the pre-posed version will be unacceptable, e.g.:

236. That book wasn't very interesting.

a. This one is more interesting.
b. #This one is even more interesting.
c. #More interesting is this one.

If the context is neutral with respect to the meaning of the emphatic even; that is, if even itself can be used or not, then the pre-posed comparative may be used also, e.g.:

237. That mission was important.

a. This one is more important.
b. More important is this one.
c. This one is even more important.

In a relatively blank or presuppositionless context, the pre-posed version creates the heightened emphasis which otherwise would be captured by the use of emphatic even.[27]

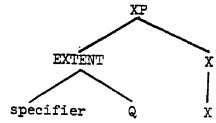
I have been unable to discover anything as clear as this with the other types of pre-posed modified constituents; however, almost certainly something similar is going on with them, depending on the set of presuppositions which attend the individual items.

Te recapitulate briefly, I have proposed a set of rules for introducing degree and quantity modification into phrase structure. Both degree and quantity are introduced with the grammatical category EXTENT which can modify either nominals or predicates. The rules for providing for the cases of complex modifications, in particular resultatives and comparatives, have been proposed as special cases of the same rules as for simple EXTENT. I have argued that EXTENT itself consists of two possible elements: a specifier and a Q element. The Q element is a necessary component of all EXTENT modification, although it can be deleted under certain environmental conditions. Providing for an obligatory Q element in EXTENT allows us to capture in a natural way that the much which appears in many degree constructions is exactly parallel to the well-recognized many/much unmarked quantifiers which occur in quantity constructions, and that furthermore, their occurrences are governed by almost exactly the same conditions. This means that superfically different constructions involving degree and quantity are structurally much more unitary than might be supposed, i.e. that constructions such as those underlined here:

238. a. I am very happy.
b. She is quite tall.
c. Max caused very many complaints.

239. a. He talks such nonsense!
b. The boss is so mad that he'll never recover.
c. He's actually crazy enough to wear that shirt.
d. You've bought too many calculators.
e. More people came than we had planned for.

have the same underlying syntactic structure, namely:



And the analysis which I have offered for EXTENT provides for these facts in an economical and symmetrical way.

This analysis also allows questions and exclamations concerning both degree and quantity to be captured in the most general way and we noted at least one parallel in the determiner system with nominals--namely the which question--where there may be very close parallels between specifiers in EXTENT and determiners in NPs. No doubt there are more. And finally I have discussed very briefly some other structures which might be related to the posited underlying structures by transformations. In one case--modified constituent pre-posing--I suggested that the transformation had a discourse sensitive function.

4.40. A Final Word

To recapitulate very briefly, I hope to have shown convincingly that degree and quantity are highly unitary in meaning, distribution, function, and syntax. Further, I hope to have shown that they should both be treated as aspects of the same grammatical category--EXTENT. And I have tried to provide an economical and symmetrical syntactic

analysis for EXTENT, and I have suggested some of the relationships which hold between different surface manifestations.

There still remains much work to be done before we have anything like an adequate understanding of EXTENT in English, not to mention exploring whether or not such an analysis is viable for other languages. We have only noted the many lexical problems to be solved. We have given quite short shrift to the numbers, concentrating more on the quantifiers. We have largely skirted the issue of the relationship between ordinal numbers and the superlative, surely a fertile field of investigation. While we have been able to see some of the restrictions governing various aspects of EXTENT in discourse, in particular the anaphoric relations between so and such and their referents, and some of the restrictions which govern what kinds of clauses various types of EXTENT may occur in, we have only scratched the surface in accounting for the discourse functions of EXTENT, and its syntactic mate, the identifying structures which so closely parallel the EXTENT structures.

I can only hope that this rather far-ranging approach to a wide variety of structures may have provided some insights which allow us to ask more fundamental questions about such structures, and that these will in turn give us some small understanding of that elusive and demanding subject we study--language.

FOOTNOTES FOR CHAPTER FOUR

[1] For example, Lakoff (1965), (1969), Carden (1968), Partee (1970), Jackendoff (1972). I take it that the issue is still not a dead one, even though it has not been much discussed recently. Bach (1974) indicates that he thinks the issue is ultimately undecidable because of the state of grammatical theory. Katz (1977) indicates that some linguists continue to believe that applied predicate calculus is presumed adequate for describing logical forms over the entire range of nouns, adjectives, verbs, etc. in natural languages (583). Stockwell (personal communication, 1977) indicated that he thought degree should be accounted for by a predicate analysis in a predicate calculus.

My position ultimately is that the degree constructions are so calcified into various collocational distributions and in shades of meaning that, even if a predicate calculus could be made to work syntactically, it would not begin to be able to handle the complexity of the meanings--and ultimately this complexity has to be a matter of the lexicon.

[2] For a fuller treatment of this range of cooccurrence and collocation, the reader is referred to Bolinger (1973). Greenbaum (1969) also gives collocational tendencies and preferences based on informant work with a questionnaire but dealing with a limited set of degree modifiers. Bäcklund (1973) is probably the most complete catalog of degree collocations available; it is an excellent reference work, although it is a bit short on analysis. I am endebted to Bäcklund's work for many of the examples given in this section.

[3] Stoffel (38-39).

[4] I am endebted to Huang (1971, 15-18) for these discriminations, although he uses them to distinguish between uses of absolutely and surprisingly. Huang attributes these distinctions to selectional restrictions. However, the restrictions observed in (29.b), e.g., *He was astoundingly exhausted seem to be more collocational than selectional. The language just doesn't like to get strong attitudinal degree modifiers so close to already strongly tinged adjectives. But even this restriction is not inviolate. If a verb of perception rather than a predicate adjective construction is used, the sentences are much better, e.g.:

$$\text{He looked} \begin{Bmatrix} \text{astoundingly} \\ \text{surprisingly} \\ \text{remarkably} \end{Bmatrix} \begin{Bmatrix} \text{exhausted} \\ \text{furious} \\ \text{famished} \end{Bmatrix} .$$

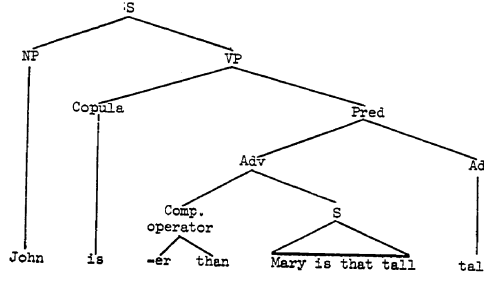
Where the predicate adjective is used, there is a certain amount of speaker assertiveness involved, but with verbs like looked, seemed,

appeared, etc., there is the possibility of hedging, and allowing for one to be surprised, astounded, etc. by the appearance rather than the reality.

5 See for example, Lakoff (1965), (1970); Carden (1968).

6 Bolinger (DW) clearly notes that quantity and degree are related, but explicitly avoids a full discussion of quantity, although he does provide many insights by contrasting degree and quantity where necessary for distinguishing them.

7 Celce-Murcia gives Lees' analysis a branching tree form in an Aspects type analysis rather than in the earlier framework Lees was using thus:



However, if we look at Lees' actual rule, it seems arguable to me that this is not how he would have branched the discontinuous items. Lees' rule is stated thus as a generalized transformation (Lees, 312):

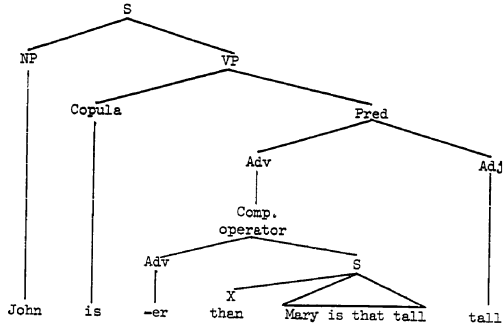
$$\text{i.}\quad \left\{\begin{matrix} X + \text{that} + A + Y \\ Z + B + W \end{matrix}\right\} \longrightarrow X + \left\{\begin{matrix} \text{as} + A + Y + \text{as} \\ \text{more} + A + Y + \text{than} \end{matrix}\right\} Z + B + W$$

It seems quite clear to me by this formulation that Lees intended that the as and more should be associated with the head item in the matrix and the as and than with the subordinate compared clause. He explicitly states this with respect to the function of as and more:

> 'The that of John is that tall on the other hand appears to be a kind of pre-adverbial or pre-adjectival adverbial modifier...' (309).

From this and from his transformational rule it is clear that he intended the matrix as and more to fill this slot and the discontinuous

as and than to be associated structurally with the subordinate clause. If this is so, then a more accurate rendering of Lees' analysis would be something more like this, with the as and than shown as constituents of the following clause rather than as constituents with the pre-adverbial:



Where what I've given as X stands for whatever Lees might have wanted to call it, perhaps a complementizer or perhaps a preposition.

8 There is one parallel concerning the for-to complementizer types of complements which C-M doesn't note, but which she might well have. If a complement with for-to is reduced to a minimum as in

i. This shirt is too big for me.
ii. Harry is wealthy enough for her.

the surface structure resembles the surface structure of the comparatives in that the complement is reduced to a prepositional phrase. As I have tried to note several times in Chapter 3, the reduced complements--whether comparative or resultative--share a number of properties, of which this is one more example.

9 Celce-Murcia (fn. 2, 78) notes that than derives historically from an Old English dative of that. As she says, 'In other words, than appears to have the stem of a complementizer or relativizer but an inflectional ending indicating a prepositional function. Thus than-and by analogy...as- can be viewed as derived prepositions rather than true prepositions such as from, to, on, etc. ...Since these morphemes obviously present the analyst with a mixed bag, he must make a choice from among the possibilities available, realizing that another solution may ultimately prove more felecitous.'

[10] It is worth noting that under Celce-Murcia's analysis a fairly well-worn example sentence like:

i. Few students passed many tests.

would have a fairly intimidating underlying form, giving an initial surface form something like:

ii. The number of students who the number of tests which passed was great was small.

It is also worth noting in passing, that lowering the predicate which gives few, without also lowering the many predicate gives

iii. The number of tests which few students passed was great.

a sentence with a meaning not contained in (i), due to the much debated problems involved with quantifier scope. However, since this is a problem for everyone who has tried to deal with such sentences, they pose no more serious problem for Celce-Murcia than anyone else. However, since she uses the head nouns in underlying structure as 'classifiers' for where the predicates are lowered, she cannot use Lakoff's out--the proposed global derivational constraint described in Lakoff (1970).

[11] Celce-Murcia (personal communication) finds my grammatically acceptable example in (133) unacceptable; she thinks it represents a syntactic blend of something like There were so many ducks that the sky was black with them and the ducks are just beginning to land on the pond. However, she accepts the next example (134) illustrating the same kind of problem but with enough as the EXTENT marker; presumably then the argument would still stand as stated, but without the so...that example as evidence.

[12] Cited as Bowers (1970) in her article.

[13] I extended his analysis to quantifiers in Gary (1970), an unpublished UCLA manuscript.

[14] Bolinger (DW, 138-139) has a fairly long discussion of some of this data.

[15] I have checked both the versions with too inside the NP and the versions with too preceding the NP with several other native speakers. By and large, they agree with me on this acceptability. In several cases, some of the native speakers preferred the versions with the too inside the NP, the versions that Bresnan's analysis predicts will always be ungrammatical.

[16] This example is due to Bolinger (DW, 138).

[17] Sandra Thompson (personal communication) has objected to this stress argument as a possible explanation for what is going on here, pointing out that very often three primary stresses fall together, e.g.:

lárge, squáre fáce

This is, of course, true. However, it does not really stand as a counter-example to this argument. First of all, there is a good bit of evidence that when primary stresses (two or more) fall together, there is often some internal stress adjustment. Liberman and Prince (1977) have a quite long discussion of some of the stress adjustments which are made to prevent what they call 'stress clashes'. These clashes may occur either from too many weak syllables falling together or too many strong syllables falling together. One example they cite is that of the number thirteen, which has primary stress on the second syllable in citation form, but if it occurs before an immediately following primary stress, may adjust its stress so that the second syllable weakens, and the first syllable strengthens, e.g.:

thirteen thirteen men

Thus, even when primary stresses do fall together, there will be various kinds of adjustments made to maintain certain rhythms and to prevent stress clashes.

Given this fact, then the explanation offered about the preferred order of:

móre ódd ă gírl versus ă móre ódd gírl

makes very good sense. In this case, the syntax allows an alternative word order, and the word order which creates the fewest 'stress clashes' will be preferred. I would like to thank Robert P. Stockwell (personal communication) for calling the Liberman and Prince reference to my attention.

[18] I have checked these sentences and others like them with native speakers and find enough agreement on them to feel somewhat confident in my own grammaticality assignments.

[19] It is possible that a rigorous analysis along the lines suggested in Liberman and Prince (see Footnote 17 above for further discussion), dealing with both 'stress clashes' and internal structure, might prove revealing of what is going on.

[20] For example, Koutsoudas (1972), Koutsoudas, Sanders, and Noll (1974), Ringen (1972).

[21] Especially Bolinger (1967).

[22] The null Q shown in this example could be either underlying null, or result from a deletion rule. This will be discussed a bit later in this discussion.

[23] This was drawn to my attention by Marianne Celce-Murcia (personal communication).

[24] In fact this generalization still needs considerable amount of work to be made completely true, in particular in sentences with true verbs (rather than predicative adjectives, adverbs and nominals) which are modified for EXTENT.

[25] Previously, we have treated sentences like these as if they occur only with the complex EXTENT constructions. However, while this is perhaps the most usual type of structure where they occur, there are several types of simple EXTENT specifiers which can also occur in such constructions, e.g.:

i. Vastly different did the range look after that rain.
ii. Particularly did I notice it when he left the room.
iii. Very much surprised would she be if I did such a thing.

Almost certainly negative pre-posing is a sub-case or at least a parallel case to these uses, e.g.:

iv. Never had I seen her look lovelier.

[26] See for example Hooper and Thompson (1973) and Green (1976).

[27] For a longer discussion of the meaning of certain other pre-posing transformations in discourse and in particular the effects of blank context use, see Gary (1976).

APPENDIX

The following is an un-edited and un-revised paper which I wrote for a seminar in historical syntax with Professor Robert P. Stockwell in 1973. The paper is included here because it may contain some historical information which is unavailable elsewhere.

There is a discussion of the history of the modified attributive fronting construction discussed in the last section of Chapter Four which may be of some interest given the number of problems of analysis that particular construction poses.

There is also a discussion of the so...that construction which traces the construction back much further in time than might otherwise be obvious. Modern so...that can be traced directly back to the Old English swa...þæt construction without interruption to about 900 AD, the time of Alfred. Before that time there do not appear to be any cases with swa as the first element of the correlative construction. In this paper I link the correlative swa...þæt with the earlier tō þæs...þæt. To the best of my knowledge, this connection has gone unnoticed. The importance of the connection is to show that this particular construction is as old as anything we might want to call English, and has remained relative unchanged over a very long period of time.

The reader should not take the syntactic analysis of modern so...that given at the beginning of the paper very seriously. It is now evident how inadequate an account it was. However, it does provide a framework for an examination of the construction through time and as such serves its purpose.

A DESCRIPTIVE HISTORY OF THE SO...THAT CONSTRUCTION IN ENGLISH

0. Introduction

The research for this paper was undertaken in order to provide me with some notion of the historical antecedents of the correlative so...that construction in Modern English. This research will eventually be a part (whether a chapter, an appendix or a footnote is not clear yet) of a synchronic description of this construction and some of its structural mates. Thus the research for the paper was conducted with descriptive ends, not theoretical ones, in sight with the hope that a knowledge of the past might be useful for the present. If it should turn out that this bit of information should have something to say about theoretical questions in historical syntax, so much the better. But that was not the goal of the research.

As we shall see below, the so...that construction has much in common with several other structures. It is a type of degree adverb. Additionally, it has many structural parallels with the comparative construction, which can also be analyzed as a type of degree adverb. However, a fully comprehensive account of the history of all the structures that the so...that might be related to would be clearly beyond the scope of this paper. Thus I deal only with the so...that construction except where it is necessary to compare it with other structures.

For purposes of expository clarity I will start with a discussion of the so...that construction in Modern English. The analysis presented then will form a framework for looking at the history of the construction through time, from Earliest Old English to the present.

I would like to make one small caveat before going back to the dim regions of Beowulf and Grendel. The literature concerning this type of structure is reasonably complete for Late Old English (post-Alfredian in my terms) and later. However, for Early Old English little has been written or compiled on this type of construction, partially at least because it changes character, at least superficially, around the time of Alfred. Thus studies which have relied on lexical rather than structural criteria, could have traced the so...that back only about to the time of Alfred.[1] What this meant for this paper was that I had to scan original documents for the particular structure in Early Old English rather than simply go to the Oxford English Dictionary, Visser (1963-1969) or Erickson (1932) for examples. I cannot pretend to have examined all of the documents which might have shed light on the use of this particular construction in Pre-Alfredian English. Therefore, in some cases analyses will have to be made on extremely scanty evidence and sometimes speculations will have to be simple guesses. I will try to note where these places are.

1. Degree Adverbs in Modern English

Very little attention has been paid to degree adverbs in current linguistic work.[2] Yet there are reasons to think that it is necessary to deal with degree adverbs in the process of providing analyses for a

wide variety of structures in English. In fact the degree adverbs are intimately tied up with problems having to do with such controversial areas as quantification, negation, adverbial representation and so forth. The reason degree adverbs are so closely related to these other problems has to do with their wide distribution as modifiers. The paradigm case of degree modification is with adjectives and adverbs, e.g.:

1. John is $\left\{\begin{matrix}\text{very}\\ \text{extremely}\end{matrix}\right\}$ tall.

2. John ran $\left\{\begin{matrix}\text{very}\\ \text{extremely}\end{matrix}\right\}$ fast.

Additionally, they may modify quantifiers, e.g.:

3. John bought $\left\{\begin{matrix}\text{very}\\ \text{extremely}\end{matrix}\right\}$ $\left\{\begin{matrix}\text{many}\\ \text{few}\end{matrix}\right\}$ records.

Some degree adverbs may modify verbs:

4. The bomb almost killed Harry.

5. Nixon completely skunked McGovern.

6. Watergate very much delights the Democrats.[3]
   or Watergate delights the Democrates very much.

And they may modify certain types of nouns, e.g.:

7. The car is $\left\{\begin{matrix}\text{almost}\\ \text{completely}\\ \text{sure}\\ \text{quite}\\ \text{very much (of)}\end{matrix}\right\}$ a wreck

Although it is not completely clear, it appears that this modification of nouns may be limited to predicate nouns inasmuch as nouns modified in such a way don't appear to be nearly as good when in

subject or object positions, e.g.:

8. * {Almost / Sure / ? quite / very much (of)} a wreck drove into the garage.

9. My brother bought * {almost / sure / ? quite / very much} a wreck

The degree adverbs are alone among the various types of adverbs in having anaphoric, pro-adverbial forms. The underlined that in the following sentences illustrate this pro-adverbialization:

10. Mary's mother said that John was very talkative, but Mary didn't find him that talkative.

11. Everybody was sure that John could run extremely fast, however, I never thought he was that fast.

12. I heard that John bought a carload of rock records, but it turns out that he didn't really buy that many records.

13. We all thought that Watergate would completely destroy Nixon, but so far it hasn't hurt him that much.

14. We had thought that the car would be a total wreck, but apparently it wasn't that much of a wreck.

It might be pointed out that the differences between such anaphoric uses of that as a pro-adverb and the use of that as a full-fledged, though nonspecific, adverb of degree itself is not altogether clear. For instance, the that in the following overheard conversation might be taken to be anaphoric to an understood, though unstated, context:

15. I wish we had spent more time studying for this exam. Actually, if we had, it wouldn't be that bad.

However, it seems to me that one could just as easily argue that the that in (15) serves an emphatic adverbial function all of its own. For the purpose of this paper we will assume that such uses of that are

basically anaphoric, although it is entirely possible to also treat them as independent adverbs of degree, a treatment which may well have strong historical antecedents.

For the purposes of this paper we can talk about two types of degree adverbs: intensifiers and others.[4] The main criterion, beyond the obvious semantic one, for distinguishing intensifiers from other types has to do with the types of head items they may modify. Items which we might call absolute cannot occur with the intensifiers. For instance, in a sentence like:

16. The door is closed.

the state indicated by closed is absolute; it is not subject to further intensification. Thus we cannot intensify the state of closedness by saying something like:

17. *The door is $\left\{\begin{matrix}\text{very}\\ \text{extremely}\end{matrix}\right\}$ closed.

On the other hand the non-intensifying degree adverbs can occur with absolute heads, e.g.:

18. The door is $\left\{\begin{matrix}\text{almost}\\ \text{completely}\\ \text{quite}\end{matrix}\right\}$ closed.

Thus we will speak of intensifiers as being [-absolute], meaning that they can modify only non-absolute head items.

Among the intensifiers, there is a particular group which is of special interest in this paper; these include so, too, enough and the comparative, represented by more/-er. All of these adverbs, except the comparative, can occur alone as simple degree adverbs, e.g.:

19. a. My mother thinks that Harry Belafonte is so handsome!

b. Secretariat just proved to be too fast.

c. Nobody thinks that Nixon has been candid enough.

or they may occur with sentential (including infinitival) complements:[5]

20. a. Harry Belafonte is so handsome that my mother swoons whenever she sees him.

b. Secretariat proved to be too fast for the other horses to catch.

c. Nobody thinks that Nixon has been candid enough to allay the criticism surrounding his administration.

d. My mother thinks that Harry Belafonte is more handsome than her son.

It is clear that the sentential elements are necessarily connected to the degree adverbs so, too, etc., inasmuch as the sentences would be ungrammatical with the degree adverbs left out, e.g., using only (20.a) as an illustration:

20. a'. *Harry Belafonte is handsome that my mother swoons whenever she sees him.

And it is clear that these types of constructions function like complex adverbs of degree. They show the same distribution of modification possibilities as the simple degree adverbs, e.g., using the so...that for illustration:

21. a. adjectives--Harry is so tall that he'll make the team easily.

b. adverbs--John jumped up so quickly that he bumped his head.

c. quantifiers--Larry invited so many people that there wasn't room to dance.

d. verbs--Pat so captivated Richard that he gave up a promising career as a used car salesman.

e. predicate nouns--The car is so much a wreck that it won't run.[6] or--The car is such a wreck that it won't run.

Furthermore, like the simple degree adverbs, the complex ones also allow the anaphoric pro-adverb that, e.g.:

22. I thought that John was so mad that he'd kill Harry, but apparently he wasn't that mad.

where the underlined that takes the place of an underlying so...that he'd kill Harry.

Thus we appear to have that we might call a degree complement, i.e., a sentential complement on intensive degree adverbs like so, too, enough, more/er, etc. Presumably then we will need a phrase structure rule in our grammar something like (ignoring other instances of degree adverbs):

23. degree ⟶ intensifier (S)

the optional S is provided to capture the intensifiers like so, too, etc. which appear to be able to occur either with or without the complement S, as in (19) and (20) above. Clearly provisions will have to be made to take care of the comparatives, which appear to require the complement.

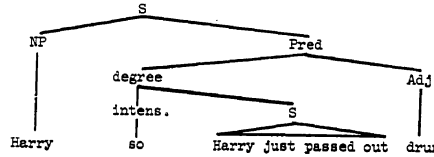
The degree node itself will have to appear in the grammar in some way which will allow it to eventually end up in the appropriate modificational relationships to at least adjectives, adverbs, quantifiers, verbs, and nouns. I do not wish to make any specific proposals at this point as to how it should be generated. Let us just assume for the present that it appears at some point in the derivations in the appropriate place. Thus a sentence like

24. Harry is so drunk that he just passed out.

would be represented by a tree like (25) in the early stages of its

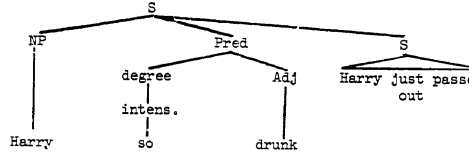
derivation:

25.



Obviously the first rule which would be needed would be an obligatory complement extraposition rule which would move the complement S to the end of the dominant S, creating (26) from (25):

26.



This extraposition rule is the transformational equivalent of the traditional explanation that these are correlative constructions -- nothing more. Clearly there will have to be various other adjustments made to account for such modificational structures with other types of head items, but this is the essential rule for all of them.

Beyond this there are several rules which relate various forms of sentences with degree complements with other forms of the same sentences. Some of the following rules apply to most of, if not all of the types of degree complements and some are specific to only one type. I will for the remainder of this paper deal only with the so...that construction simply for reasons of time and space economy. The comparatives are like the so...that in many ways and different from them in many ways. Those

similarities and differences are a complete paper in themselves. Similarly, there is some reason to think that the too...to construction might be derived from the so...that with a negative in the complement. This too is a separate topic. As we shall see, the so and the too have much in common historically. However, I will for the most part deal specifically with the so...that construction, except where it is clearly necessary to note parallels.

There are several transformations which relate various so...that constructions to each other. We will deal in particular with four of these. I will assume that these transformations operate on a more or less basic form which has the intensifier so in its essentially surface position as indicated by sentences like those found in (21), i.e. with the so/such in a pre-head position before adjectives, adverbs, quantifiers, verbs and predicate nominals. And I will assume that the obligatory complement extraposition rule has moved the complement S to its post-head position, wherever that might turn out to be. Given these assumptions, the first rule we might note is one we might call the Complement Pre-posing rule, which moves the complement S to the front of the sentence. This rule relates the (a) versions of the following sentences to the (b) versions.

27. a. Harry is so tall that he bumped his head.
    b. Harry bumped his head, he is so tall.

28. a. Secretariat broke from the gate so fast that none of the other horses had a chance.
    b. None of the other horses had a chance, Secretariat broke from the gate so fast.

29. a. God so loved the world that he gave his only begotten son.

b. God gave his only begotten son, he so loved the world.

30. a. Peter invited so many people that there wasn't room to dance.
    b. There wasn't room to dance, Peter invited so many people.

31. a. Max is such an idiot that he bought the Golden Gate Bridge.
    b. Max bought the Golden Gate Bridge, he is such an idiot.

It is of course possible that this preposing rule is simply an alternative to the extraposition rule, either one applying, as long as one of them does. For our purposes, either assumption would be adequate.

The second rule to consider is what we might call the Intensifier Post-posing rule. This rule operates only with the so modifying a verb. It moves the so from before the verb to a place at the end of the verb phrase and makes provision for a comma intonation immediately after the post-posed so. This rule would produce the (b) versions from the (a) versions below.

32. a. Ali so dominated boxing that no one else had a chance.
    b. Ali dominated boxing so, that no one else had a chance.

33. a. The child so misbehaved that its mother spanked it.
    b. The child misbehaved so, that its mother spanked it.

This rule obviously does not work with the other types of heads, e.g.:

34. *John is tall so, that he bumped his head.

35. *Harry ran fast so, that everyone else was left behind.

The third rule to be considered is what we might call the Modified Constituent Pre-posing rule. This rule allows a constituent which is modified by so/such to be pre-posed to the front of the sentence. This

rule is illustrated by the (b) versions of the following sentences.

36. a. Wilt is so tall that he intimidates the opposition.
    b. So tall is Wilt that he intimidates the opposition.

37. a. Warren changed the subject so fast the press got suspicious.
    b. So fast did Warren change the subject that the press got suspicious.

38. a. He told so many lies that one one believed him.
    b. So many lies did he tell that no one believed him.

39. a. My car is such a wreck that I'm selling it for junk.
    b. Such a wreck is my car that I'm selling it for Junk.

This rule is different from other pre-posing rules like adverb pre-posing in that it obligatorily causes subject/auxiliary inversion, while a rule like simple adverb pre-posing cannot cause sub/aux inversion, e.g.:

40. *So quickly Warren changed the subject that we were suspicious.

41. a. Quickly, Warren changed the subject.
    b. *Quickly did Warren change the subject.

The last rule to be considered is what we might call Modified Attributive Pre-posing. Normally an attributive adjective modifying a noun occurs between the article and the noun, as for example good in:

42. Harry is a good player.

However, if the attributive is modified by so, the attributive must appear before the article as illustrated by:

43. a. *Harry is a so good player that he'll make the team easily.
    b. Harry is so good a player that he'll make the team easily.

2.0. So and so...that in earlier stages of English

The historical antecedent for the Modern English lexical item so is swa and it can be found in the earliest records of what we might with any justification call English. swa became so by normal phonological changes of rounding and raising. In Old English swa had (perhaps) as many varied uses as so does today. Some of the earlier uses of swa are more or less intact down to the present so, while others have changed by various processes.[7] In the very earliest stages of the language swa is used as an indefinite intensifier just as so without the complement S is used today. So we find it used with an adjective:

44. ne hȳrde ic snotorlīcor on swā geogum feore guman þingian

(I never heard a man of so young age speak more wisely)

--Beowulf, 1842

with an adverb:

45. þeah þe hie swa grome nydde in faeþm byres lige.

(yet he forced them so fiercely into the heart of the fire)

--Daniel, 233
from the Caedmonic School

with a quantifier:

46. seege ich þē tō sooþe, suna Ecglāfes, þaet nāefre Grendel swā fela gryra gefremede...

(I say to you, in truth, son of Ecglāfes, that never would Grendel have performed so many terrors...)

--Beowulf, 591

I have been unable to find swa used as an intensifier with a verb and swilch (the OE version of such) used intensively with a noun in my own

brief searches of pre-Alfredian documents. However, I am reasonably certain that such examples can be found. There are certainly plenty of examples in the later OE period, as we shall see below.

Thus we seem to find swa with uses and distributions in EOE parallel to NE intensive so. However, when we begin to look for EOE examples of parallels to so...that, presumably swa...þaet, we do not find any before about the time of Alfred (c.900). What we do find is examples of tō þaes...þaet, tō þon...þaet, and þaes...þaet, e.g.:

47. for þon nis þaes modwlonc mon ofer eorþan, ne his gilfena
þaes god, ne in geoguþe tō þaes hwaet, ne in his daedum
tō þaes
deor, ne him his dryhten tō þaes bold, þaet he a his
saefore
naebbe to hwon hine dryhten gedōn wīlle.

(For there is no man on earth so stout-hearted, or so
free with
his gifts, or so valiant in his youth, or so daring
in his deeds,
nor his lord be so gracious to him, that he should be
spared all anxiety, in regards to his last voyage.)

—Wanderer, 39ff.

48. waes him se man tō þon leof þaet he þone breostwylm
forberan ne mehte.

(The man was so dear to him that he could not hold back
his breastswelling)

—Beowulf, 1876

What we appear to have operating as the intensifier in these complex degree adverbs is either þaes (one of the forms of the article/demonstrative se) or a compound form of tō plus one of the forms of se, e.g., þaes, þaem, þon. This tō is the ancestor of the excessive intensifier too in Modern English. It is not of course clear from this distance

in time if any of the lexical properties of tō in the compound were still present; presumably they were not and the compound translates more or less accurately as so today.[8]

These examples with to þæs as the intensifier are taken from literature dating somewhere perhaps in the middle of the 8th Century A.D. By around 900 A.D. we find swa...þæt being used, as for example in Alfred:

49. ...se hearpere weorþan swa sarig þæt he ne meahte ongemong oþrum bion...

...the harper became so sorrowful that he could not remain among other men.

--Cons. of Boethius, Orpheus and Eurdice, 13.

50. ...swa stille...þæt hi hi na ne onscunedun.

the wild animals stood so still..that they feared not)

--Ibid., 8

Fortunately we can say with some precision just when the swa...þæt began to replace the tō þæs...þæt construction, at least in the Mercian dialect. We find in legal documents of the period, in particular land grants, leases and wills, a formulaic warning to potential breakers of the document saying something to the effect that, "If any man be so presumptuous that he change this deed, he will burn in hell with Judas." The following are arranged chronologically with the date in parentheses to illustrate the use of the constructions from the middle of the 9th century to the middle of the 10th.[9]

51. a. (864) Gyf þanne hwolc man tō þan geþristlaece oþþe mid doefles
searwum to þam beswicen sȳe þæt he þis on aenigum þingum

lytlum oþþe myclum þence to gebrecanne oþþe to onwendanne...

(If, however, any man (be) so presumptuous or so greatly deceived by the wiles of the devil that he contemplate breaking or changing anything, great or small...)

--Charter of King Aethbert to Serborne

b. (922) 7 gif aenges hades mon sio ure aefterfylgendra swa wemme wircaþ þaet þaes ure sylene on aengum wisan geweman oþþe gewanian wille withe...

(and if there be any man of any rank among our successors who acts so vilely that (he) impair or diminish this our grant in any way...)

--Grant of land by Wilforth, Bishop of Worcester.

c. (934) Gif þonne hwelc mann tō þaem dyrstig beo þaet he þisses hwaet breoce oþþe wende beo he scydlig...

(If, however anyone is so presumptuous that he violate or change this in any particular, he will be guilty...)

--Gift of a copy of the Gospels King Aethelstan to St. Cuthberts

d. (961) ...þaet nan man swa geþurstig ne seo, þaet hit leng of þaere cyrican do...

(and now I enjoin...that no one be so presumptuous that (he) keep it longer from the church...)

--Lease of Land by Bishop of Wincester (during reign of Edgar)

Thus we can see that the swa...þaet and the tō þaes...þaet forms of the correlative construction were in competition around the turn of the 9th century, with the swa...þaet form eventually winning out, perhaps as

early as 950 A.D. or so. While I cannot claim an exhaustive search, I have not been able to find any instances of the <u>tō þaes...þaet</u> later than that of (51.c), i.e. around 934 A.D.

In later OE documents we find <u>swa...þaet</u> occurring with the same kind of distribution which we found for <u>so...that</u> in NE. We find it modifying adjectives, as illustrated in the writings of Alfred mentioned above in (49) and (50); we find it modifying adverbs:

52. and hine efne swa ferlice deaþ fornan þaet he ungefellad for ferde.

(and death came to him so suddenly that he departed unbaptized)

--Blick. Hom, 217, 19
c. 971 A.D.

modifying quantifiers:

53. þa waes aefterre þaet froxas coman geond eall Egypta land swa fela þaet man ne hihte nan weore wyrcan.

(Afterwards so many frogs came into Egyptland that no man could do any work)

--Alfred, Orosius, 36.

modifying verbs:

54. and hine swa gegremode, þaet god cwaeþ...

(and so vexed him that God said...)

--A.S. Hom.

55. suae lufade god þone middangeard þaette sunu his ancende gesalde...

(So loved God the middleregion that he gave his only son...)

--Lindisfarne Gospel, John iii, 16, c. 971 A.D.

and modifying predicate nouns:

56. þes geares...wearþ swylc mancwealm þæt na belaf binnan Cristes cyrcan butan fif munecan.

(These years (produced?) such mankind that only five men believed in Christ's church.)

--OE Chron. c. 1100

and these distributions and uses continue uninterrupted to the present day.

The question of course is why swa...þæt should have superceded tō þæes...þæt for expressing the correlative relationship. The simplest explanation would seem to be that there was a simplification of the grammar. The language already had the swa serving as a simple intensifier. It was also used in other correlative constructions like swa...swa, which translates today as the comparison of equality as...as e.g.:

57. gif þin hige waere, sefa swa searogrim swa þu self talast...

(If your heart was as ferocious as you suppose...)

--Beowulf, 594.

Thus the tō þæes in the correlative construction was semantically redundant with the intensive swa and structurally parallel to the correlative uses of swa. Additionally, if the language was in the process of downgrading the importance of the case forms, as it seems it was, the various forms of se used in the tō þæes...þæt construction would become -- if indeed they were not already -- increasingly irrelevant. Given the choice of using a semantically equivalent form like swa which was also uninflected, or of retaining tō plus the

various forms of se or choosing one of the inflections of se to serve as the intensive, it is not surprising that the language might take the easiest road and choose swa. Indeed, it would be more surprising if the language chose to keep the morphologically more complex form under these circumstances.

2.1. History of the transformations effecting so...that

As we noted earlier, the Complement Extraposition rule which moves the complement S away from the intensifier and to the end of the dominant S is equivalent to saying that this is a correlative construction. Apparently, English has treated this modificational relationship as a correlative construction throughout its history. We might note, at this point, that this is not the only way such a relationship could be expressed. The notion expressed in the complement clause could be handled by a clause with some kind of subordinator placed in proximity to the modified item. To illustrate what is meant, we could communicate the resulative relationship of the that clause of:

58. John is so tall that he bumped his head.

by saying something like:

59. *John is tall that he bumped his head.

While English does not use this kind of subordinating relationship for this type of construction, some languages do.[10] In particular, it would seem plausible that a language with relatively free word order could use the non-correlative type of structure easily, simply by putting the modified element next to the complement clause. A language with a more fixed word order might be less likely to use such a device, and use instead some kind of marker like the intensive to indicate the

structure receiving the modification signaled by the complement clause. However, English seems to have used the correlative type of construction throughout its history, even in OE, which had a relatively free word order. Thus, the Complement Extraposition rule is constant from OE to the present.

The Complement Pre-posing rule operates in NE moving the complement to the front of the sentence, as illustrated by:

60. a. John is so tall that he bumped his head.
    b. John bumped his head, he is so tall.

This rule appears to be long-standing in the language. We can find instances of it in the earliest literature, e.g.:

61. sweord aer gemealt, forbarn brodenmael; waes þlod
    to þaes hat,

    (the sword had melted, burned-up decorated sword;
    the blood was so hot.)

    --Beowulf, 1615

62. swa he ne hihte--no he þaes modic waes-- waepna
    gewealdan, ac hine wundra þaes fela swencte
    on sunde...

    (So he could not--though he was very brave--wield his
    weapon, for so many woundrous beings harassed him
    while swimming...)

    --Beowulf, 1508

and in later language of the Middle English period, e.g.:

63. He bihalt on oþre þet he ne mei nones weis makien
    vuele iþonked, so lufful ond so reouful is hire
    heorte.

    --Ancrene Rule, 222
    c. 1225 A.D.

64. Out of witte þan bai should men flay, swa
orrible and swa foul er þai.

--Hampole, c. 1340 A.D.

The Intensifier Post-posing rule moves the intensifier from its normal place before the verb to a place following the verb phrase, e.g.:

65. a. God so loved the world that...
b. God loved the world so, that...

This type of construction is relatively rare in earlier times. The earliest example I have been able to find for the so...that construction is at the beginning of the Middle English period:

66. Wurb þin fader and moder so, þat þu hem drede and
helpe do.

(Honor your father and mother so, that...)

--Genesis and Exodus
c. 1250 A.D.

However, there are much earlier examples of this transformation with the comparative marker more, e.g.:

67. Þu Lufedes...unrehtwisnisse mae þon spreocan
rehtwisnisse.

(They loved (to speak) unrighteously more than to
speak righteously.)

--Vesp. Psalter, c. 855 A.D.

Given this fact, it seems likely that in fact there are other examples of the transformation working with the so intensifier. However, this can only be speculation at this time.

The Modified Attributive Pre-posing rule which moves an attributive adjective modified by so to a position before an indefinite

article does not appear in English until around the 13th Century. And apparently the language had a hard time making up its mind what to do with attributives when they were modified. In Modern English, as we saw, the pre-posing is obligatory, viz.:

68. a. *Harry is a so handsome man.
    b. Harry is so handsome a man.

However, the rule doesn't appear to have become completely obligatory until at least the 17th or 18th century. We find instances of all possible combinations of article, modifier and adjective from the Middle English Period until Early Modern English:

69. a. art--so -- adj--N

    i. þu eart a swa hende gome

    --Layamon, c. 1205 A.D.

    ii. ...of a so yong þing.

    --Horstman, c. 1300 A.D.

    iii. ye may set to reforme thes so wicked lawes.

    --Brinklow, 1545 A.D.

    b. so--art--adj--N

    i. The feeble definition of so an approved philosopher.

    --Arippa, 1569 A.D.

    ii. So an unnatural sin...

    --Fuller, 1657 A.D.

    c. so--adj--art-N

    i. ...ye wolde... pyne yow with so pouer a mon.

    --Gawain and the Green Knight c. 1300 A.D.

ii. yf we dye so glorious a death in so good a quarrell.

--Chron. of Richard II 1548 A.D.

iii. We are all glad, so very a known rogue he was.

--Samuel Pepys, 1664 A.D.

The confusion was not confined to the so forms. There is the same kind of confusion about what to do with the such, e.g.:

70. a. ...þat of uþere Pendragon scal arisen swilch a sune...

--Layamon, 1205 A.D.

b. ...lute wonder it was þat strange man in is owe land dude a such trespas.

--Glocester Rolls, 1297 A.D.

c. ...þere was never womman bare swyche a chylde.

--Bonadventure, 1300 A.D.

It is not at all clear why the final order of constituents was decided on. There doesn't seem to be any structural reason for having so+adj in front of the article, yet it is as obligatory a rule as there is in NE, even though it took several hundred years for the language to finally make up its mind.

The last rule which we will look at is the Modified Constituent Pre-posing rule, which allows any modified constituent but a verb to be moved to the beginning of the sentence, as illustrated by:

71. a. Sam ran so fast that he won easily.
b. So fast did Sam run that he won easily.

Apparently, this rule has been in the language for a long time. The

earliest example I have found is from Alfred:

72. swae claene hio waes oþfeallen on Angelcynne þaett swiþe feawa
waeron behionu Humber þe hiora þeninga cuþen understondan on Eglisc.

(so completely was learning fallen off in England that very few beyond Humber could understand religious services in English.)

--Alfred, Preface, c. 900 A.D.

We might note that there is no subject/aux inversion with the preposing here. Literally we have:

73. So completely it was fallen off...

We don't start getting sub/aux inversion with Modified Constituent Pre-posing until around the 16th century. The first example I have been able to find is:

74. Raymondin...hered ne saw nought, so sore was his wit troubled.

--Melusine, c. 1500 A.D.

It is not all clear, even in NE, why Modified Constituent Pre-posing triggers sub/aux inversion. However, it is no doubt tied up with the whole question of inversion, and do support in English. It is not simply a function of the rules effecting so...that.

There is one final thing about the so...that construction which needs to be mentioned. We noted earlier that degree adverbs, including the degree complements which we have been examining, have an anaphoric that as a pro-adverb. We also noted that it was not always clear that the that so used was clearly anaphoric. We noted that it could even be analyzed in some cases as an intensifier itself, as in (15) above. I have been absolutely unable to trace the history of the anaphoric use

of the that as a pro-adverb. The OED gives no instance whatsoever of any such possible use of that. None of the grammars or dictionaries I have consulted make any mention of any such use. It is of course possible that this use is of quite recent origin. However, I am extremely doubtful, even though I can offer no concrete proof at this time. There is one thing which we might note, however. We have found some very early examples of a possible forerunner of the that which might be analyzed as an intensifier. Consider the underlined items in the selection mentioned earlier from the Wanderer:

> 75. For þon nis þaes modwlonc mon ofer eorþan, ne his gifena þaes god...þaest..
>
> For there is no man so stouthearted on earth, nor one so free with his gifts...that...

Here we have þaes used alone, not in the tō þaes compound. This strikes me both in form and in usage as an early use of the demonstrative as an intensive. It could very well be that this use of the demonstrative has continued down from very early times and I just have not been able to offer documentation for it. This is of course sheer speculation. If it were so, it is not too difficult to imagine how an anaphoric usage might develop from the intensive that. I mention these only as interesting questions for further study.

3.0. Conclusion

The most striking thing about about the history of the correlative so...that construction is how little it has changed since the earliest periods of English. If we accept, as I think is reasonable, that the change from tō þaes to swa around the 10th century was essentially a

simple process of lexical substitution rather than any basic structural change, then with a few minor exceptions, the rules needed to account for the form and distribution of sentences with the correlative so...that construction are essentially the same from Early Old English to the present. The most striking difference in earlier forms from later ones is a relatively trivial one -- the fluctuations in positioning of modified attributive adjectives with respect to the innovating indefinite article. And even here the rule that was to win out apparently was present almost from the time the indefinite article began to be used, but it did not become obligatory until several centuries had elapsed.

The most obvious conclusion to be drawn from this short history of the construction is that it gives rather striking support to the notion that the underlying forms of a language change very little, at least in syntax. If anything, this particular construction shows even less change than we might expect to occur over a period of 12 or 13 centuries.

FOOTNOTES FOR APPENDIX

[1] I would like to thank Paula Yankopoulos of our seminar for drawing my attention to this. Additionally I would like to thank her for giving me a great deal of help in tracking down instances of the historical antecedent of the so...that construction in Beowulf.

[2] Just recently Bolinger (1973) has published an extensive study of degree words. Nonetheless, he does not address himself to an analysis of how all types of degree modifications might be related in a grammar.

[3] I take very much to be a lexical unit here inasmuch as neither very nor much can occur alone, e.g.

a) ??Watergate much delights the Democrats.
b) *Watergate very delights the Democrats.

[4] A fuller discussion of the distribution of different types of degree adverbs may be found in Gary (1972).

[5] While the connections of the sentential and/or infinitival complements and the adverbial elements involved have always been recognized by the traditional grammarians like Jesperson, Poutsma, etc., as far as I am aware, Bowers (1968) is the first person to note the strict co-occurence relations holding between the adverbial elements and the complements and the first to try to deal with this wide variety of structures under the same type of analysis.

[6] We noted earlier that very much was the intensifier for verbs and nouns while very was used with adjectives, adverbs and quantifiers. It is interesting to note here that so can occur alone with verbs as in (21.d) rather than so much which is also all right, but so has to be so much with predicate nouns. However, we also find such before predicate nouns, which as far as I can tell is absolutely equivalent to so much. From this point on, I will assume that such is simply a suppletive form of so when it occurs before nouns.

[7] See Ericson (1932) for a reasonably comprehensive survey of the various uses of swa in Old English.

[8] It is not clear to me whether or not the case differences in the form of se, e.g., þæs and þon, are of any importance or not. There may be functional differences that a grammarian more conversant with OE than I can detect. However, I will assume that there are not any significant differences signaled, being perhaps only agreement changes or being more or less in free variation. All of the dictionaries and grammars I have consulted translate all forms as either so or to the extent that, to the degree that, or to the point that, any differences of which are completely lost to me.

[9] All of these legal quotations were taken from Robertson (1939). And to the best of my knowledge, they are all examples of the Mercian dialect. The translations are mostly Robertson's with some alterations by me. In particular, Robertson translates the that clauses as infinitives (e.g. ...so presumptuous ... as to contemplate changing anything). Clearly, however, they were full that clauses in OE.

[10] I am indebted to Judy O. Gary for this observation from some work she did on Hausa, which apparently uses such a method of establishing the relationship.

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