Some Notes on Comparative Syntax, with Special Reference to English and French*

Richard S. Kayne
New York University
September, 2003

1. Generalities
1.1 Parameters

    Comparative syntax necessarily involves work on more than one language, but it is not simply that. On the one hand, it attempts to characterize and delineate the parameters that ultimately underlie cross-linguistic differences in syntax. On the other, it attempts to exploit those differences as a new and often exciting source of evidence bearing on the characterization and delineation of the principles of UG, of the properties that, by virtue of holding of the (syntactic component of the) human language faculty, will be found to hold of every human language.

    The term 'parameter' has itself been used in more than one way. That is in turn related to the ways in which the terms 'lexical' and 'lexicon' are used. In one sense, 'lexical' is opposed to 'functional', as when one distinguishes lexical categories like N and V from functional categories like C, D and Asp. One correspondingly speaks of nouns like *cat* and *table* and verbs like *die* and *break* as lexical morphemes as opposed to the functional morphemes *for, the* and *-ing*. At the same time, it is often said that *for, the* and *-ing* belong to the lexicon of English, where one takes the lexicon to include both 'lexical' and 'functional' elements.

    As long as one has these distinctions clearly in mind, I see no objection to this usage of 'lexical' and 'lexicon', and I will consequently speak of the lexicon (of a given language) as containing both lexical and functional elements. Now a widespread idea about syntactic parameters is that they are limited to being features/properties of functional elements,[1] as opposed to ever being features of lexical elements. But since functional elements are part of the lexicon, then this limitation means that syntactic parameters are nonetheless necessarily features/properties of elements of the lexicon. This seems like a perfectly reasonable way of speaking, given the above mentioned way of using the word 'lexicon'.

    Limiting syntactic parameters to features of functional heads is also intended to exclude the possibility that there could be a syntactic parameter that is a feature of no element of the lexicon at all, e.g. there could presumably not be

a parameter of the sort 'language L_i has or does not have bottom-to-top derivations'. This is similar to (though more obvious than) Chomsky's (1995, 160) proposal that there cannot be a parameter attributing Case chains to some languages but not to others (as had been suggested by Koopman (1992)).[2]

The restriction that parameters are invariably features of functional elements needs to be sharpened, however. One would presumably not want to allow English *the* and Dutch *de* ('the') to differ in that *the* 'can be part of a Case chain' while *de* cannot be? A parameter of that sort ('can or cannot be part of a Case chain') could be formulated as a feature of a functional element (instead of being formulated as a property of a language), but clearly that would go strongly against the spirit of Chomsky's proposed restriction.

What this brings out is something that I think has always been implicit in the proposal that parameters are restricted to features of functional elements, namely that the features in question must be simple and limited in type, in some sense to be made precise. Being (or not) part of a Case chain would not count as an appropriate feature. Reaching an adequate characterization of what it means to be an appropriate feature in this sense is one of the primary challenges faced by (comparative) syntax.

What form syntactic parameters take is itself a question that is, I think, quite separate from another that has occasionally led to some confusion in the literature. This other question has to do with the effects of different parameter settings, and, more specifically, with the 'size' of those effects. For example, the 'pro-drop' parameter, as discussed in the late seventies and early eighties, had multiple effects. In addition to differing with respect to the expression or non-expression of unstressed pronominal subjects, non-pro-drop and pro-drop languages also differed with respect to the possibility of having postverbal subjects and in whether or not they allowed 'that'-trace violations. The range of effects traceable back to that one parameter was notable.[3]

It has occasionally been thought that the term 'parameter' itself should only be used when there is such a notable or 'dramatic' range of effects. I will not, however, pursue that way of thinking here. In part that is because what seems 'dramatic' depends on expectations that may themselves be somewhat arbitrary.[4]

For example, French and English differ in that in restrictive relatives English *who* is possible as a direct object, whereas in French the corresponding word *qui* is not (though it is possible as the object of a preposition). Let us set aside the (important) question of what exactly the parameter is that underlies this French/English difference and ask whether that difference carries over to non-restrictive relatives. The answer is that it does, i.e. restrictives and non-restrictives act alike in the relevant respect.[5] Assuming the same parametric difference to be at work in restrictives and non-restrictives, is this then an example of a parameter with a notable/dramatic/impressive range of effects or not? I'm not sure that the answer to this last question is clear (it depends on expectations about (and on one's theory of) how similar the two types of relatives should be); and I'm not sure how important the answer is.

For syntactic theory (and linguistic theory more generally) to merit being thought of as a theoretical field in the most ambitious sense of the term, syntactic theory must provide some results of non-trivial deductive depth (the more the better, of course, all other things being equal). In the subarea of syntax that we call comparative syntax, these results can in some cases indeed take the form of a single parametric difference having a multiplicity of effects. (A different type of non-trivial result would be a successful restrictive (and deep[6]) characterization (in terms of possible parameters) of the range of human languages, in the area of syntax.)

But from that it does not follow that every parameter, understood as a (simple) feature of some functional element, need have an equally wide range of effects.[7] Take, for example, the well-known French/English difference concerning the position of *assez/enough* relative to an associated adjective. In English, *enough* differs from related words like *too, so* and *how* in following, rather than preceding, the adjective (*rich enough* vs. *too rich*, etc.). In French, *assez* does not differ from the corresponding set of related degree elements - they all precede the adjective (*assez riche, trop riche*, etc.). English *enough* plausibly has some feature that induces movement of the adjective to its left; French *assez* plausibly lacks that feature.

This seems like a reasonable enough parameter, which might (or might not) turn out to have other, unexpected effects (in other areas of syntax). If it turned out to have no other effects, it would be an example of a relatively less 'dramatic' parameter than, say, the pro-drop parameter, although even then it might still be of substantial interest for the construction of a general theory of parameters.

A partially similar point was made several years ago by Holmberg and Sandström (1996), in their discussion of prenominal and postnominal possessors in northern Swedish dialects. There is significant parametric variation in those dialects, in that area of syntax. Holmberg and Sandström speak of 'minor' vs. 'major' parameters. For example, a parametric property of the functional element that hosts possessors in its specifier might not have effects that go beyond sentences containing an overt possessor, and in that sense might be 'minor' (compared to a parametric property of the 'agreement' morpheme found with finite verbs, which is likely to have a much more pervasive set of visible effects). Again, 'minor' in this sense is perfectly compatible with 'theoretically important',

if, for example, the parameter(s) in question should turn out to tell us something important about the general status of parameters in UG, and/or (as in the case of *enough*) about the general question of how exactly movement is triggered.

I will consequently freely use the term 'parameter' to characterize all cross-linguistic syntactic differences, independently of the degree of 'drama' or range of effects associated with any particular parameter.

1.2 Micro-comparative syntax and micro-parameters

Another dimension of interest in the universe of parameters has to do with a potential distinction between 'micro-parameters' and 'macro-parameters'. Let me approach this via the partially related distinction between 'micro-comparative syntax'[8] and 'macro-comparative syntax'. Micro-comparative syntax can be thought of as comparative syntax work done on a set of very closely related languages/dialects. However, since 'very closely related' is an informal characterization, let me recast this in more relative terms: Some comparative syntax work is more micro-comparative (less macro-comparative) than other comparative syntax work. Work on a more closely related set of languages/dialects is more micro-comparative than work on a less closely related set. In some cases, the distinction is quite clear (in others, two sets of languages/dialects might not be readily comparable). Thus, work on a set of North Italian dialects would be more micro-comparative than work on a set of Indo-European languages including Italian, Greek and English. (As a first approximation, we can take degree of historical relatedness as an informal guideline for degree of syntactic 'closeness'.[9]) Work on a set of Indo-European languages would in turn be more micro-comparative/less macro-comparative than work on a set including some Indo-European and some Afro-Asiatic.

It might be that one can distinguish in a similar vein micro-parameters and macro-parameters. Different settings of micro-parameters would characterize differences between very closely related languages/dialects such as American English and British English. One example would involve *do*-support and in particular the fact that British English, but not American English, has what looks like non-finite *do*-support, in sentences like *He may do, He may have done*.

On the other hand, it is not clear a priori that the parameter(s) underlying this difference (however best formulated) have effects only within English.[10] More generally put, although there will certainly be syntactic parameters distinguishing pairs of very closely related languages, the same parameter(s) might be active in unrelated families, with effects that might look superficially rather different (due to interactions with other properties of that other family).

We can thus use the term micro-parameter to pick out those parameters that at least in some cases differentiate two very closely related languages. Whether micro-parameters in this sense (or minor parameters as above) differ in any systematically interesting way from other parameters should be taken as an open question at this (early) stage of comparative syntax work.

A similar degree of caution would be appropriate for the notion of macro-parameter as in Baker (1996, 8). Baker might be correct in thinking that there are some (macro-)parameters that compactly characterize a significant group of (historically not necessarily related) languages such as the so-called polysynthetic ones.[11]

On the other hand, one of the key properties of polysynthetic languages, namely the obligatory appearance of a pronominal agreement element in addition to the (non-incorporated) lexical argument (if there is one), is also found within languages of an apparently rather different sort. For example, the Italian CLLD construction (clitic left-dislocation - Cinque (1990)) requires the presence of a pronominal clitic in addition to the dislocated direct object argument. In Italian this does not carry over to indirect prepositional (dative) arguments, but in Spanish it does. In Spanish, dative arguments (preceded by a preposition) must to a large extent be accompanied by a pronominal clitic even when not 'dislocated'. In many North Italian dialects, this is an absolute requirement. Some North Italian dialects impose the presence of a pronominal subject clitic in addition to a lexical subject.

Although these varying requirements found in language families like Romance that are not polysynthetic in any general way might turn out to be unrelated to Baker's polysynthesis parameter, it could alternatively be the case that the systematic obligatoriness of pronominal agreement morphemes in Mohawk is just an extreme example of what is found to a lesser extent in (some) Romance.[12] (A theoretical reason for remaining cautious about the polysynthesis parameter is that, as Baker (1996, 505) notes, it leads to an expansion of the universe of possible parameters (which would have to be allowed to contain some parameters of a certain 'visibility condition' sort).)

Uncertainty concerning the importance of a micro- vs. macro-parametric distinction does not affect the special status of micro-comparative syntax, which I think has a certain special importance. (Macro-comparative syntax work is essential, too, of course). This special status of micro-comparative syntax resides in the fact that it is the closest we can come, at the present time, to a controlled experiment in comparative syntax.[13]

In a universe (very substantially) unlike the one we live in, we could imagine experimenting on individual languages. We could take a particular language, say Italian (in which pronominal clitics follow infinitives), and alter it minimally, e.g. by giving it a 'twist' in such a way as to change the position of its clitics relative to infinitives. We would then look carefully at this new language (variant of Italian) to see if any other syntactic properties have changed as an automatic result of our experimental 'twist'. If some have, then we can conclude that there must be some parameter(s) that link these other properties to the position of clitics relative to infinitives.

By performing many such experiments (on many languages), we would develop a substantial body of evidence concerning which syntactic properties are parametrically linked to which others. These experiments would dramatically increase our knowledge of what clusters of syntactic properties are linguistically significant, and dramatically facilitate our discovering the correct theory of syntax. Not only would our increased knowledge facilitate delineating the primitive parameters of the syntactic component of the language faculty; a deeper understanding of the working of syntactic parameters could not but facilitate our making progress toward understanding the universal principles that these syntactic parameters are so tightly connected to.

We cannot do such experiments. But by examining sets of very closely related languages, languages that differ from one another in only a relatively small number of syntactic ways, we can hope to achieve something of the same effect. We can take one language/dialect, then look for another very similar one that differs with respect to a property we are interested in. The closeness of the languages/dialects in question will make it relatively more likely that any other syntactic property that we discover to vary between the two will be parametrically related to the first.

It is not that micro-comparative syntax is easy to do, nor that one is guaranteed of success, nor that there is a black and white distinction between micro- and macro-comparative syntax. It is rather, I think, that the probability of correctly figuring out what syntactic property is parametrically linked to what other one (and consequently the probability of discovering what the relevant parameter(s) may be) is higher when the 'experiment' approches to a greater extent the ideal of a controlled one, with fewer variables to be taken into account. Intra-Romance comparisons can at least sometimes be pursued without one being forced (in a crucial way) to look further afield than Romance. Whereas comparative work taking, for example, English and Japanese as a starting point might lead almost anywhere, at the risk of making the comparative work not impossibly difficult but certainly more difficult.[14]

Putting things another way, we might say that micro-comparative syntax work provides us with a new kind of microscope with which to look into the workings of syntax.[15] That it is syntax in general that is at issue, and not just comparative syntax proper, is a point worth emphasizing - study of the principles of syntax is not and cannot be a separate enterprise from study of the parameters.

Let me illustrate this with one example. English allows embedded infinitival interrogatives such as:
(1) We don't know where to go.
(2) We don't know whether to leave.
But it does not allow:
(3) *We don't know if to leave.
Romance languages very often allow infinitival interrogatives in the way that English does. They typically have no word corresponding directly to *whether*. They do, on the other hand, have in general a counterpart to *if*. Some Romance languages are just like English in disallowing a controlled infinitive with (their counterpart of) *if*, e.g. French:
(4) *Jean ne sait pas si partir. ('J neg know not if leave$_{infin}$')
What is surprising is that some Romance languages do allow it, e.g. Italian:
(5) Gianni non sa se partire. ('G neg knows if leave$_{infin}$')
A standard comparative syntax question would be to ask what this intra-Romance (French/Italian) difference might correlate/cluster with (and then to bring in English and other languages). Although it is of course logically possible that the answer to this sort of question might in a given case be 'nothing' (i.e. that we are looking at an isolated differential property),[16] the best working strategy at the present stage of development of the field is to assume, I think, that there exists some positive answer (i.e. some clustering of properties), and then to look hard for it.

In the particular case at hand, there is a very good candidate, since those Romance languages which like French disallow 'if'+infinitive appear to differ systematically in another way from those which like Italian allow it. This other way has to do with the relative placement of pronominal clitic and infinitive. The Romance languages that are French-like (with respect to (4)) have the order clitic-infinitive, while the Italian-like ones have the order infinitive-clitic.

This correlation within Romance between control with 'if' and the order infinitive-clitic is of obvious importance to any attempt to delineate the parameter(s) underlying the syntactic differences at issue. At least as important,

however, is the fact that this correlation within Romance promises to provide an invaluable clue to a general understanding of the theory of control. Put another way, it is entirely reasonable to impose on any proposed theory of control the requirement that it lend itself to a natural account of this correlation. (This kind of cross-Romance correlation could by definition come to the fore only as the result of comparative syntax work.)

Since, in the spirit of Emonds (1978) and Pollock (1989), the difference between clitic-infinitive order and infinitive-clitic order almost certainly involves a difference (or differences) in verb movement, it is plausible that verb movement is in part what underlies the French/Italian difference with respect to control with 'if' seen in (4) vs. (5). If so, then the correct theory of control must be sensitive to verb movement.

In Kayne (1991) it was suggested that a theory of control embedded in the version of the government-based binding theory put forth in Chomsky (1986, 170ff.) meets this criterion in the desired way. On the other hand, Chomsky's more recent minimalist work has attempted to move away from the use of government. If that evolution is on the right track, then the correct theory of control cannot depend on government, yet must continue to meet the unyielding requirement that it be able to express the Romance correlation at issue.[17]

The study of (what underlies) (1)-(5) is also relevant to the earlier discussion of micro- vs. macro-parameters, and in particular to the idea that apparently macroparametric differences might all turn out to dissolve into arrays of microparametric ones (i.e. into differences produced by the additive effects of some number of microparameters). This idea could be elevated to a general conjecture:

  (6) Every parameter is a micro-parameter.

What this would mean is that every syntactic parameter is such that each of its (two) values yield (when all other factors are held constant) a pair of UG-admissible grammars that characterize two languages that we would all (informally) agree are very closely related.

The importance of (1)-(5) lies in showing that micro-parameters (e.g. the (relatively micro-parametric) one(s) responsible for clitic-infinitive vs. infinitive-clitic order) are perfectly capable of participating in an explanation of a 'cluster of properties', in this case of the correlation with control in interrogative 'if'-clauses. It may be that (some of) the clusters of syntactic properties that were under prominent discussion twenty-five years ago were too coarsely characterized. It may be that as research progresses a much finer-grained picture of syntax will substantially displace the one current twenty-five years ago (not to mention even earlier ones). Yet it may, and very likely will, also turn out that the type of parametric explanation put forth twenty-five years ago in the early stages of comparative syntax will have long-term validity and long-term importance.

2. How many parameters? How many languages?
2.1 How many functional elements?

The hypothesis that syntactic parameters are invariably features of functional elements does not imply that every functional element is associated with some parameter, but that additional hypothesis is a plausible one that I would like to entertain:

  (7) Every functional element made available by UG is associated with some syntactic parameter.

If (7) is correct, then we have a minimum number of parameters. There must be at least as many syntactic parameters as there are functional elements in the syntax.

How many functional elements are there, then? Before hazarding a guess, let me separate this question from the question of the proper analysis of such elements. Consider, for example, the English suffix -ish (meaning approximately 'more or less'), as in:

  (8) We're ready-ish.
  (9) John looks thirty-five-ish.
  (10) It must be a quarter after five-ish.

The last example (in which -ish has scope over *a quarter after five*) surely suggests a strongly syntactic approach.[18] In which case the absence of a direct counterpart of -ish in French is of immediate interest to (comparative) syntax.

But even suffixes that cannot follow phrases can readily have syntactic import, e.g. the agentive -er or the nominalizing -ion which interact with the expression of arguments, not to mention (inflectional) tense suffixes, going back to Chomsky (1957). Let us therefore take such 'derivational' suffixes as -er and -ion (as well as standard inflectional suffixes) to be part of the syntax, broadly construed. More specifically, let us assume that such suffixes are subject to parameterization that affects the syntax, whether or not they are to be analyzed as functional heads, or as elements triggering movement to a higher functional head. (An informal conjecture would be that, as more and more comparative work is done on derivational suffixes, they will come to be seen more and more clearly as part of syntax.)

Thinking of Cinque (1999), we of course want to take into account, in building up our inventory of functional elements, as many languages as possible and to count as relevant functional elements even those elements that occur

overtly only in some languages. A list of functional elements relevant to syntax would now plausibly include (in no particular order):

11) complementizers like *that* or *for*
12) elements expressing mood; also subjunctive/indicative morphemes; imperative morphemes
13) modals of different sorts
14) tense elements
15) aspectual elements
16) negation morphemes; emphatic and affirmative morphemes
17) person morphemes - in particular first and second person
18) *se*-type reflexive morphemes (related to person) and morphemes like French *on*
19) number agreement morphemes; gender morphemes/word markers; noun class markers
20) third person pronouns; locative clitics like French *en, y*; non-clitic locatives
21) pro-'predicate' morphemes like French *le*
22) demonstratives
23) definite articles; specific articles
24) indefinite articles
25) elements like *some, any*
26) numerals and the arguably related *several*
27) universal quantifiers
28) quantity words like *many* and *few*
29) classifiers
30) degree words including comparatives and superlatives; *very*
31) *have/be*; copula vs. existential
32) possessive morphemes such as *of, 's*; suffixes as in French *mon* (=*m-+-on*), and as in Russian
33) nouns like *body, thing, place, one* that have special (functional) behavior, as in *somebody else*
34) filler nouns like *one* in *a blue one*
35) *body, self, -même* in complex reflexives
36) wh-words in interrogatives; in relatives; in free relatives; in exclamatives
37) *-ever* as in *whoever*
38) functional adpositions; perhaps all adpositions
39) Case morphemes; direct object marking morpheme sensitive to animacy and/or definiteness
40) particles like *up, down* and directionals like German *hin, her*
41) prefixes of all sorts, e.g. *re-, out-, over-*; negative *un-*; reversative *un-*
42) adverbial *-ly*
43) suffixes like *-less, -ful, -ish, -y*; also *-th* as in *two hundred and fiftieth*; also *-ity-, -ness*
44) nominalizing morphology like *-ion*, gerundive *-ing*, infinitive suffixes like Romance *-r*
45) functional verbs like causatives and *get*; also restructuring verbs a la Cinque (2001; 2002)
46) functional adjectives like *other, same, good*;
47) focussing elements like *only, just, even, also, too*
48) *as, than*
49) conjunctions like *and, or, but*
50) *(al)though, while, after, before, if, because, since*

I have certainly forgotten some, if not many, functional elements. Others I am not aware of because they are found overtly only in languages that I have never come into contact with (in most cases because the languages in question have not come into existence yet, or else have disappeared without leaving a trace). In other words, the above list is no doubt too short. That is so despite the fact that it mentions over fifty English morphemes and indirectly alludes to many more (from English and other languages - see in particular Cinque (1999)).

On the other hand, in some cases (e.g. *any*) I may have included elements that are actually bimorphemic (*an* + *-y*, thinking of *every* as possibly being *ever* + *y*). The conclusion is that the number of functional elements in syntax is not easy to estimate, but at the same time that 100 would be a low estimate.

Let us take that low estimate and let us associate each functional element with one (binary-valued) parameter, making the additional simplifying assumption that the resulting 100 parameters are all independent of one another, i.e. that each can be set independently of all the others. The number of syntactically distinct grammars characterizable even by this (in all probability artificially small) set of 100 independent parameters is large, on the order of 10^{30}, i.e. 1 followed by 30 zeros.[19]

There is no problem here (except, perhaps, for those who think that linguists must study every possible language), since neither the language learner nor the linguist is obliged to work directly with the set of possible grammars. The learner needs only to be able to manage the task of setting the 100 parameters (or whatever the number is), and the linguist needs only to figure out what they are (and what the accompanying principles are, and why they are as they are).

2.2 How many parameters per functional element?
    The number of syntactic parameters would increase (while still remaining manageable) if a given functional element could be associated with a (small) number of distinct parameters. The exent to which this is likely to hold is not entirely clear. The answer is in part dependent on a proper understanding of the extent to which syntax is 'decompositional'.
    Consider the contrast within English:
  (51) They've written few (*number) articles.
  (52) (?)They've written the fewest number of articles of anybody I know.
Although *few* cannot be immediately followed by *number*, the superlative counterpart is much more acceptable. For this and other reasons it is plausible that *few articles* is to be analyzed as *few NUMBER articles* (where the capital letters indicate non-pronunciation), with *few* taken to be an adjective similar to *little/small*, but restricted to modifying the noun *number*/NUMBER. In the same vein, *a red car* is arguably to be analyzed as *a red COLOR car*, where *red* necessarily modifies COLOR, rather than *car* (which is itself modified by *red COLOR*).[20]
    If these analyses are correct, we need to ask why the learner of English would have ended up with them. The simplest answer is that there was no choice, in the sense that these analyses are the only ones that UG makes available for such phrases. (I am setting aside the question whether *few NUMBER* and *red COLOR* are reduced relatives.) As to why these would be the only analyses made available by UG, a plausible proposal is that UG respects a 'principle of decompositionality' that can be formulated as follows:[21]
  (53) UG imposes a maximum of one interpretable syntactic feature per lexical or functional element.
The idea is, for example, that *a red car* simultaneously expresses, in addition to what is attributable to *car* and to *a*, the notion of color plus a distinct notion having to do with the particular position/interval on the color scale. What (53) says is that UG requires that those two notions correspond to two separate elements (two separate nodes).[22]
(The range of implications of (53) will depend on the correct characterization of 'interpretable syntactic feature'.)

3. Some parameters having to do with non-pronunciation
3.1 Pronunciation vs. non-pronunciation: the case of French *-aine* and English -AINE
    Returning to parameters, it seems clear that the more decompositional syntax is, the more likely it is to be true that each functional element can be associated with just one syntactic parameter. On the other hand, there is one type of parameter (that can be thought of as straddling syntax and phonoloy) that might be readily able to coexist with another (more purely syntactic) parameter. What I have in mind here is cross-linguistic variation with respect to the pronunciation vs. non-pronunciation of a given functional element.
    While it is logically possible that the absence of an overt functional element in language A corresponding to a functional element visible in language B could indicate that language A entirely lacks that functional element, there is a substantial tradition that has profitably taken the opposite position, namely that if language B visibly has some functional element, then all languages must have it, even if in some or many it fails to be pronounced at all.
    The postulation of unpronounced functional elements is familiar from the area of inflectional morphology, for example in Vergnaud's work on Case, in much work on agreement (and pro-drop) and more widely in Cinque (1999).[23] Let me mention here one potentially interesting example from what would be called derivational morphology. French has a (nominal) suffix *-aine* (feminine in gender) that can readily follow certain numerals (10, 12, 15, 20, 30, 40, 50, 60, 100), with an interpretation akin to *about*.[24] An example is:
  (54) Elle a déjà publié une vingtaine d'articles cette année ('she has already published a$_{fem.}$ twenty-*aine* of articles this year' = '...about twenty articles...').
English has no visible suffix that matches *-aine*.
    Yet there is some evidence that English does have an unpronounced counterpart of this *-aine*.[25] This is suggested by the contrast:
  (55) a hundred (*of) articles
  (56) hundreds *(of) articles
As an ordinary numeral, *hundred* cannot be followed by *of* (apart from partitives containing definites like *a hundred of these articles*), but plural *hundreds* must be followed by *of* (unless the following NP is itself left unpronounced).

Moreover, (56) has an 'approximate' rather than a precise numerical interpretation, and would be translated in French by *centaine*:

  (57) des centaines d'articles ('of-the hundred-*aine*-s of articles')

rather than with the simple numeral *cent* ('hundred').

    Now the presence of *of* in (56) vs. its absence in (55) is plausibly to be thought of as reflecting the nominal behavior of *hundreds* vs. the adjectival behavior of *hundred*. with the strong unacceptability of:

  (58) *three hundreds articles

as opposed to:

  (59) three hundred articles

then parallel to that of:

  (60) *three excellents articles

vs.:[26]

  (61) three excellent articles

    Why, though, should *hundreds* be nominal if *hundred* is adjectival? The answer must be that *hundreds* necessarily contains a nominal suffix (that I will represent as -AINE) akin to overt French -*aine*:

  (62) hundred + -AINE + -s of articles

with the nominal character of that suffix responsible for the appearance of *of*, much as in *a box of apples*, etc. The fact that this nominal *hundreds* is not compatible with a further numeral, as in:

  (63) *seven hundreds of articles

means that its nominal suffix has something in common with *oodles* and *numbers* in:

  (64) They have (*seven) oodles of money.

  (65) We've invited (*seven) large numbers of linguists to the party.

    If English has an unpronounced suffix -AINE comparable to French -*aine*,[27] we can ask whether the two of them differ in some other parametric way, beyond the phonological difference. A good candidate has to do with singular vs. plural. French has both singular:

  (66) une centaine d'articles ('a hundred-*aine* of articles' = 'about a hundred articles')

and plural:

  (67) des centaines d'articles ('of-the...' = 'hundreds of articles') Whereas alongside (56) English does not allow:

  (68) *a hundred of articles

(In addition, (55) does not have the approximative interpretation.[28])

    What looks like a similar restriction to plural holds for me in the contrast between (64) and:[29]

  (69) *They have an oodle of money.

On the reasonable assumption that this is an intrinsic property of *oodle* and of English -AINE (and that (68) and (69) are one phenomenon), we seem to have, in the case of -*aine*/-AINE, an example of two parametric differences (pronunciation (French) vs. non-pronunciation (English) and compatibility with singular (French) vs. incompatibility with singular (English)) associated with a single derivational suffix.

    On the other hand, it might be that incompatibility with singular follows from non-pronunciation, in particular if English -AINE needs to be licensed by overt plural -*s*, and if that licensing requirement is imposed by the non-pronunciation of -AINE.[30] In which case, the two parametric differences in question would reduce to one (pronunciation vs. non-).

    In the universe of inflectional suffixes, postulation of two parametric properties for one functional element is not unfamiliar. For example, Spanish and Italian differ from Paduan in robustly allowing null subjects in the third person singular (and plural). Taking Harris (1969) to be correct in arguing that the third singular suffix in Spanish is zero (and generalizing to Italian), we seem to reach the conclusion that this zero suffix, in addition to its phonological property (which distinguishes it from the third singular (present tense)[31] suffix of German), has, in Spanish (and Italian), some further property that licenses a null subject (as opposed to the apparently similar zero third singular suffix of Paduan). Alternatively, one might try to reinterpret this second property by reducing it to the fact that Paduan (but not Spanish or Italian) has subject clitics.[32]

3.2 Non-pronunciation and licensing: the case of *something heavy*

    Pronunciation vs. non-pronunciation of a given functional element has in some cross-linguistic cases effects that seem likely to follow at least in part from UG principles. Such cases (as perhaps the case of French -*aine* vs. English -AINE just mentioned) seem to indicate that pronunciation vs. non-pronunciation is unlike a simple difference between one non-zero phonological realization and another.[33] Another example of interest is the following.

English has:[34]
  (70) somebody famous, something heavy
whereas French has:
  (71) quelqu'un de célèbre ('some-one of famous')
  (72) quelque chose de lourd ('some thing of heavy')
with an obligatory preposition *de*:
  (73) *quelqu'un célèbre
  (74) *quelque chose lourd
that English cannot have:
  (75) *somebody of famous, *something of heavy
That (70) and (71)/(72) are essentially the same phenomenon (as suggested to me by Hans Bennis), modulo the preposition, is reinforced by the fact that both languages fail to allow this with fully lexical nouns:
  (76) *Some linguist famous just walked in.
  (77) *Some book heavy just fell off the table.
and similarly in French (if we abstract away from focalization effects). In addition, there is a determiner restriction that holds for (70):
  (78) *thebody famous, *thatthing heavy
that also holds for French (again abstracting away from focalization effects).[35] That French (71)/(72) is strongly parallel to English (70) is further suggested by their common limitation to singular:[36]
  (79) *somethings heavy/abnormal
  (80) *quelques choses de lourds/anormaux ('some things of heavy/abnormal')

3.3 Determiners and unpronounced EVER
    A way in which English and French contrast here has to do with the range of allowable determiners. English allows fairly well:
  (81) Everybody famous is happy.
  (82) Everything expensive is worth buying.
As in (76)/(77), a fully lexical noun is not possible:
  (83) *Every writer famous is happy.
  (84) *Every book expensive is worth buying.
French normally expresses *everything* as *tout*, a single morpheme, and *everybody* as *tout le monde*, literally 'all the world'. Combining these with *de* plus adjective is not possible, however, in contrast to (71)/(72):
  (85) *tout le monde de célèbre ('all the world of famous')
  (86) *tout de cher ('all of expensive')
    A possible account might be the following. First, note that *tout* is identical in form to the masculine singular French counterpart of *all* in *toutes les filles* ('all$_{fem.,pl.}$ the girls').[37] Second, we might claim that *all* and *every* differ in definiteness, with *all* definite and *every* indefinite.[38] Third, it might be that indefiniteness is a necessary condition for (70)-(72) and (81)-(82).
    Parametrically speaking, this would point up the importance of the fact that English *each, every* and *all* have only two counterparts in French, *chaque* and *tout*. If *chaque* is a close counterpart of *each*, as seems very likely, and if *tout* corresponds to *all*,[39] then it looks as if it is *every* that is missing in French. This in turn might (if we are willing to think of *every* as *ever+y*, perhaps parallel to *any* as *an+y*) be linked to the absence in French of any overt morpheme corresponding to non-temporal *ever*,[40] as found in English in:
  (87) Wherever he goes, they'll be unhappy.
What French would have is:
  (88) Où qu'il aille,... ('where that he goes,...')
with no *ever*, but with an overt complementizer (and the verb in the subjunctive). It may be that the overt complementizer *que* (normally impossible in standard French in combination with a wh-word) is necessary in (88) to license an unpronounced counterpart of *ever*,[41] i.e. French may have:
  (89) Où EVER qu'il aille,...
This unpronounced French EVER would, on the other hand, be unable to occur as a (part of a) determiner (perhaps because French has no -*y*).
    What this seems to indicate, in a way that is partly familiar from earlier work on the ECP,[42] is that languages may differ in that one language may associate no pronunciation with a functional element that is pronounced in the other; yet the unpronounced version will be subject to licensing requirements that may in some cases force the

presence of an element (here, *que* in (88)) not otherwise needed, and at the same time in other cases result in the unpronounced version being unusable (as with the absence of a French counterpart to *every*).

3.4 'Extraposition' differences

This brings us to a second way in which French and English differ in the area of syntax under discussion. The French counterpart of *someone else, something heavy* contains the preposition *de* ('of'), which we saw in (71)-(74) to be obligatory. In English the corresponding overt preposition is impossible, as seen in (75). On the other hand, there are major similarities between French and English (restriction to nouns like *one* and *thing*; restriction to indefinite determiners; restriction to singular), as seen in (76)-(80). A natural proposal, therefore, is to take English *something heavy*, etc. to contain an unpronounced counterpart to French *de*, call if OF:

  (90) something OF heavy

Now the difference between pronounced *de* and unpronounced OF seems to correlate with the fact that French allows combining this construction with 'extraposition' to a greater extent than English does. For example, French has:

  (91) Rien n'est arrivé de très intéressant. ('nothing neg is happened of very interesting')

while:

  (92) ??Nothing happened very interesting yesterday.

is not very good, as opposed to all of these:

  (93) Nothing very interesting happened yesterday.
  (94) Nothing happened that was very interesting yesterday.
  (95) Nothing happened of much interest yesterday.

with the last of these showing an overt *of* that is arguably responsible for the contrast with (92), parallel to (92) vs. (91). Similarly, in wh-cases, French allows:

  (96) Qui as-tu invité de célèbre? ('who have you invited of famous')

while English is not very happy with:

  (97) ??Who did you invite famous?

as opposed (cf. (94) and (95)) to:

  (98) Who did you invite that/who was famous?
  (99) Who did you invite of interest?

That 'extraposition' of OF+Adj. is less successful than extraposition of *de*+adj. has a familiar ring to it, in that it recalls the well-known fact that, within English, relative clause extraposition is degraded if the complementizer is unpronounced:

  (100) Something just happened *?(that) John isn't aware of.

Thus the French/English contrast concerning extraposition with adjectives will plausibly follow from general principles of licensing (again, in the spirit of the ECP[43]), interacting with the parametric difference between a pronounced and an unpronounced preposition.

3.5 Quantity word differences and non-pronunciation

This parametric difference concerning *de* vs. OF is in one sense more complex than the apparently similar one discussed earlier concerning the French derivational suffix *-aine* and its unpronounced English counterpart, in that English *of*/OF is often pronounced, so its non-pronunciation with adjectives cannot simply be a general feature of it.[44]

A perhaps related case in which French has *de* and English has no visible preposition is the case of quantity words. The closest French counterparts of:

  (101) too few tables
  (102) so few tables

are:

  (103) trop peu de tables ('too *peu* of tables')
  (104) si peu de tables ('so...')

and similarly for *little* in:

  (105) too little sugar
  (106) so little sugar

which in French are:

  (107) trop peu de sucre ('too *peu* of sugar')
  (108) si peu de sucre ('so...')

with *peu* translating both *few* and *little*. (I return later to the question of what exactly *peu* corresponds to.)

Note in passing that the very fact that English distinguishes *few* and *little* on the basis of plural vs. mass, while French uses *peu* in all of (103)-(108), itself reflects a parametric difference of interest, comparable to the fact that English has both *someone* and *somebody*, whereas French has a close counterpart only of the former - *quelqu'un*.

These parametric differences are of course 'in the lexicon', in the specific sense that they are based on features of particular functional elements, but they are equally 'of the syntax' and raise all sorts of interesting questions - e.g. how best to characterize the relative distribution of *-one* vs. *-body*, or of *few* vs. *little*, and how best to understand the principles that underlie the distributional differences. In the case of *few/little*, we have a distinction that is clearly related to the distinction between *number* and *amount* (and *quantity*), leading to interesting questions concerning the contrast:

(109) (?)That library has a large amount of books in it.

(110) *John has a large amount of sisters and brothers.

The parallelism between *someone* and *quelqu'un*, while certainly real, itself leads to the question whether *some* and *quelque* are quite the same, given:

(111) Some are interesting.

vs.:[45]

(112) Quelques*(-uns) sont intéressants.

and the ensuing thought that *quelque* is actually *quel* ('which') + complementizer *que*.[46] The idea that *quelque* is not a perfect match for *some* may in turn be supported by the arguable absence in French of any simple counterpart to *any*. Whether French has a (closer) covert counterpart of *some* (and *any*) (and if not, why not?) is a (valid and important) question that I will not try to pursue here.

More generally, all work in (comparative) syntax depends in part on (often implicit) hypotheses concerning correspondences between morphemes across languages. In many cases, discerning what French morpheme corresponds to what English morpheme, for example, is straightforward, in other cases less so, as in the example just mentioned of *some* and *quelque*. (It seems highly likely that the proportion of straightforward cases is greater the more micro-comparative the work.) As we shall see below, the similarity between *peu* and *few/little* in (101)-(108) is in fact misleading.

Before taking on the correspondence question, let us focus again on the *de* that appears in (103)/(104) and (107)/(108) as well as in the corresponding examples without a degree element:

(113) peu de tables

(114) peu de sucre

These contrast with *few* and *little* in (101)/(102) and (105)/(106) and in:

(115) few tables

(116) little sugar

which do not have *of* (and cannot).

In this respect one can see a parallel to (70)-(75) that in turn may be related to an English/French contrast concerning (relative clause) complementizers, exemplified by the contrast:

(117) the books (that) you have read

(118) les livres *(que) vous avez lus

The fact that English has no overt preposition in *something interesting* might perhaps (and perhaps similarly for (115)/(116)) depend on English allowing an unpronounced counterpart of *that* in (some) finite relative clauses. (Whether this itself is an intrinsic feature of *that* or itself follows from something else about English remains to be understood.)

On the other hand, the Italian counterparts of (113)-(116), namely:

(119) poche (*di) tavole

(120) poco (*di) zucchero

do not show the preposition *di* ('of') that one might expect given that the Italian relative clause complementizer *che* is more like French *que* than like English *that*. But this contrast between French and Italian is probably related to the fact that Italian *poco/poca/pochi/poche* agrees with the noun in number and gender, while the corresponding French *peu* does not agree at all. Put another way, Italian may allow a covert preposition here (like English does, but for a different reason) if that covert preposition in Italian is licensed by the overt agreement morphology.[47]

The English/French contrast concerning *of* and *de* with *few/little* vs. *peu* carries over to:

(121) too many (*of) tables

(122) too much (*of) sugar

vs.:

(123) trop *(de) tables ('too of tables')

(124) trop *(de) sucre ('too of sugar')

despite the fact that (123)/(124) contain no overt element corresponding to *many/much*. The obvious proposal is that these French examples contain an unpronounced counterpart of *many/much* (which I'll represent as MUCH):

(125) trop MUCH de tables/sucre

Licensing is once again required - in the absence of any appropriate element like *trop*, unpronounced MUCH would be impossible, e.g. alongside *Have they eaten much sugar?*, there is no French:

(126) *Ont-ils mangé de sucre? ('have they eaten of sugar')

Not every degree word is a possible licenser, however. *Assez* ('enough') does act like *trop*, e.g. like (124)/(125) is:

(127) assez de sucre

with the analysis:

(128) assez MUCH de sucre

and like (107) is:

(129) assez peu de sucre ('enough *peu* of sugar' = 'little enough sugar')

On the other hand:

(130) si peu de sucre ('so *peu* of sugar')

has no counterpart:

(131) *si de sucre

It might be that the licenser of unpronounced MUCH in French must be +N, and that while *trop* and *assez* are or can be +N, *si* cannot be, just like *très*:

(132) très peu de sucre ('very *peu* of sugar' = 'very little sugar')

(133) *très de sucre

Given that alongside the possible (124)/(127), we have the impossible (126), (131) and (133), the question arises as to how French does express what they were intended to express. Let me focus on *much sugar*, which would normally be translated as:

(134) beaucoup de sucre

Yet *beaucoup* does not seem to be a true counterpart of *many/much*. For example, it cannot be modified by *trop* ('too'), *si* ('so'), or *très* ('very'):

(135) *Jean a mangé trop beaucoup de sucre. ('J has eaten too *beaucoup* of sugar')

(136) *Jean a mangé si beaucoup de sucre.

(137) *Jean a mangé très beaucoup de sucre.

In addition, *beaucoup* is not a polarity item in the way that *much* is:[48]

(138) Jean a mangé beaucoup de sucre.

(139) *?John has eaten much sugar.

Rather, *beaucoup* looks more like a French counterpart of *a good deal*, as in:

(140) He's spent a good deal of time in London.

It is not that the two morphemes that make up *beaucoup* correspond exactly to *good* and *deal* (although *beau* and *good* have something in common),[49] but rather that there are two, that the first is adjectival and the second nominal, that the restrictions against modification in French seen in (135)-(137) carry over to *a good deal*:

(141) *He's spent too/so good a deal of time in London.

(142) *?He's spent a very good deal of time in London.[50]

and that neither *beaucoup* nor *a good deal* can be preadjectival modifiers (comparatives aside):

(143) *Jean est beaucoup riche. ('J is *beaucoup* rich')

(144) *John is a good deal rich.

The conclusion that *beaucoup* is more like *a good deal* than like *many/much* (despite the fact that *a good deal* (unlike *beaucoup*) is less natural with plurals than with mass nouns) seems solid, and might be taken to indicate that French simply has no overt morpheme corresponding to *many/much*. Yet there is in fact one candidate that does come to the fore. This is so when one turns to the fact that (107), (129), (130) and (132) have parallels with adjectives, in the sense that *trop, assez, si* and *très* occur in:

(145) trop petit, assez petit, si petit, très petit ('too/enough/so/very small')

Against the background of (145), consider now:

(146) Jean a mangé tant de sucre. ('J has eaten *tant* of sugar')

which would normally be translated as *J has eaten so much sugar*. Given the proposal made earlier in (125) that *trop de sucre* is really *trop MUCH de sucre*, one could well think the same of *tant de sucre*. But *tant* is crucially unlike the degree words *trop, assez* and *si* (and also *très*) in that it cannot directly modify adjectives:

(147) *Jean est tant petit. ('J is *tant* petit')

This suggests the possibility that (146) is better analyzed as:

(148) SO tant de sucre

with SO unpronounced and with *tant* then a truly close counterpart of *many/much* (except that overt *tant* is (parametrically) restricted to cooccurring with SO).[51]

Taking *tant* to be essentially like *many/much* allows us to relate (147) to:

(149) *John isn't much intelligent.

i.e. to the fact that English *much* is normally impossible with adjectives. The fact that one can say:

(150) That book isn't much good.

is almost certainly due to *good* being able to act as a noun, as suggested by:

(151) It isn't of much good to anybody.

since overt *of* can normally not go with adjectives in English (cf. (90)), and by:

(152) What good is that?

since *what* otherwise requires a noun.

An additional similarity between *tant* and *much* lies in the observation that *so*, in the case where it takes an adjective as antecedent, is sometimes compatible with a preceding *much* (in a way that the adjective itself would not be):[52]

(153) John is intelligent, too much so, in fact.

combined with the observation that the closest French counterpart of this *so*, namely clitic *le*, is also compatible with *tant*, even when *le* takes an adjective as antecedent:

(154) Jean ne l'est pas tant que ça. ('J neg so is not much *que* that')

Like (146) vs. (147) is:

(155) Jean a mangé autant de sucre que Paul. ('J has eaten as much of sugar *que* P')

(156) *Jean est autant petit que Paul. ('J is as much small *que* P')

If *tant* is strongly parallel to *much*, then *autant* can readily be decomposed into *au+tant*, with *au-* parallel to the English comparative *as* that precedes adjectives or (adjectival) quantity words. The way French expresses the adjectival counterpart of (155) is:

(157) Jean est aussi petit que Paul.

where *aussi* is clearly composed of the *au-* of (155) plus the *si* of (130) and (145).[53] Transposing back to English, we reach:

(158) *John is as so small as Paul.

which is not possible, but which suggests that the following:

(159) John is as small as Paul.

is really:[54]

(160) ...as SO small...

with an unpronounced SO, and similarly for:

(161) John has eaten as much sugar as Paul.

(162) ...as SO much...

in which case (155) must be:

(163) ...au SO tant...

unifying it with (148).

Note that this analysis of (159) and (161) amounts to saying that the degree element in these examples is the unpronounced SO rather than *as* itself, and thereby makes it possible that the second *as* in (159) and (161) is the same functional element as the first (rather than an accidental homonym, though its exact status needs to be elucidated).

This in turn makes it interesting (and imperative) to ask why French does not use *au-* twice:

(164) *Jean est aussi petit au Paul.

(165) *Jean a mangé autant de sucre au Paul.

and, conversely, why English does not use a correspondent of the *que* seen in (155) and (157):

(166) *John is as small that/what Paul.

(167) *John has eaten as much sugar that/what Paul.

Since saying that *au-* cannot appear in (164)/(165) because it cannot be an independent 'word' is not much of an answer (why could it not be?),[55] I will leave that question open. (The question posed by (166)/(167) is not easy, either.)

Given that French overt *tant* is akin to *much/many* except that it is restricted to occurring with the unpronounced degree element SO, we have a parametric difference of a noteworthy sort, about which we can begin to ask further

questions. For example, we can wonder why SO is the only degree element that can occur unpronounced with *tant* ((146) cannot be interpreted as if it had an unpronounced TROP or ASSEZ). Relevant may be sentences like:

(168) He can stand only so much noise.

in which *so* has a demonstrative-like interpretation, suggesting that *so* itself may have less interpretive content than *too* or *enough*,[56] and thereby be more recoverable (in a sense to be made precise, thinking of the fact that pronouns are cross-linguistically often unpronounced) than *too* or *enough*.

If so, we can then ask why English does not follow the same path as French (in which case English would allow 'SO *much*') and vice versa (in which case French would allow **si tant* ('so much')). That French does not allow **si tant* would appear to be part of a clear generalization to the effect that *tant* (unlike *many/much*) cannot occur with any overt degree modifier (recall that from the present perspective the *au-* of (155) is not a degree element):

(169) *Jean a mangé trop/si/assez/très tant de sucre. ('J has eaten too/so/enough/very much of sugar')

This in turn looks like the other side of the coin represented by (125) and (128), i.e. in place of the impossible **trop tant* and **assez tant*, French has '*trop* MUCH' and '*assez* MUCH'. The question now is how best to state this. Assume the following:

(170) If in a given language a given functional (or lexical) element can be pronounced, then it must be.

(171) (170) can be overridden.

From this perspective, English *too *(much) sugar* is expected, while French must have recourse to (171).

3.6 A licensing parameter possibly reinterpreted as a movement parameter

From the preceding perspective, French and English differ in that in French MANY/MUCH can be unpronounced in the context of certain +N licensers like *trop* ('too'), e.g. *trop de sucre*.[57] As is so often the case, this is less a difference between the two languages taken as wholes than it might appear. The reason is that English itself allows unpronounced MANY/MUCH in the specific instance of *enough sugar*. This contrast within English between *enough sugar* and **too sugar* appears to be related to *smart enough* vs. **smart too* - i.e. the only degree word that allows *many/much* to be unpronounced in English is precisely the one that requires its adjectival complement to move to its left.

This leads to an alternative approach - instead of just attributing to *trop* a licensing ability with respect to MUCH denied to its counterpart *too*, it might be that in French (but not in English) MUCH moves leftward past *trop* in a way parallel to what happens overtly in English with *enough* and adjectives (despite the fact that it does not happen in French with overt adjectives).

This would make the licensing configuration (for unpronounced MUCH) the same in *enough sugar* and *trop de sucre*:[58]

(172) MUCH enough sugar

(173) MUCH trop de sucre

and might alter our view of the French/English difference here from simply being a parameter concerning licensing to being a parametric difference that (also) concerns movement. Put another way, it might be that the licensing of MUCH (a case of (171)) would be automatic whenever MUCH moved leftward past its degree modifier. If so, then *too much sugar* vs. *trop de sucre* would reduce to the same general kind of movement parameter that one sees within English in *smart enough* vs. **smart too* (apparently, a feature of the degree word itself).

In English, the adjective must cross *enough*:

(174) *John is enough smart.

On the natural assumption that the obligatoriness of this movement carries over to the relevant French cases,[59] we have an immediate account, parallel to (174), of:

(175) *Jean a mangé trop tant de sucre. ('J has eaten too much of sugar')

Instead, the question is now why French excludes (given (173)):

(176) *Jean a mangé tant trop de sucre.

The answer must be the same as for English:

(177) *John has eaten much enough sugar.

and could be attributed to:

(178) If (171) comes into play, it does so obligatorily.

In other words (in a way parallel to the obligatoriness of movement - v. note 59):

(179) If the non-pronunciation of an otherwise pronounceable element is licensed in some environment, then pronunciation of that element in that environment is impossible.

We can think of (178)/(179) as imposing a kind of blocking effect, but if we do, we must keep it distinct from the weaker notion of morphological blocking that favors *sincerity* over *sincereness*, or *invisible* over *unvisible*. I

say 'weaker' because both *sincereness* and *unvisible* seem to me essentially acceptable, and in any event appreciably more acceptable than (177).[60]

As is well-known, (177) contrasts with:

(180) John has eaten little enough sugar.

which in turn correlates with the fact that the following:

(181) John has eaten enough sugar.

cannot have the interpretation of (180). Put another way, *little* must be pronounced, unlike *much*, even when preposed to *enough*. As in the discussion of (168), some notion of recoverability must be at issue. (For example, it might be that (180) contains an unpronounced negation that must be licensed by overt *little*.)

The word order in (180) does not match French:

(182) Jean a mangé assez peu/*peu assez de sucre.

Similarly, alongside the proposed (173), we have:

(183) Jean a mangé trop peu/*peu trop de sucre.

French *peu* does not move past degree words in the way that French MUCH has been postulated to. This may correlate in part with the fact that *peu* does not correspond as closely to *little* as it might seem to. (Again, I return to this later.)

Recall from (131) that *si* ('so') acts differently from *assez* and *trop* in that *si* is incompatible with unpronounced MUCH:

(184) Jean a mangé si peu de sucre. ('J has eaten so *peu* of sugar')

(185) *Jean a mangé si de sucre.

In place of (185), French has:

(186) Jean a mangé tant de sucre.

which I have argued to be 'SO *tant*', with *tant* corresponding to English *much*. The question now is how exactly to exclude (185). One possibility was mentioned at (131), using the feature +N. Another might be that if *si* is just the pronounced counterpart of SO, then (179) provides an answer, in particular if the non-pronunciation of SO in (186) is licensed prior to the point in the derivation at which MUCH could move. (The fact that overt *tant* in French, unlike overt *much* in English, licenses SO needs further elucidation.)

Apparently like (184)/(185) is:

(187) Jean a mangé très peu de sucre. ('J has eaten very *peu* of sugar')

(188) *Jean a mangé très de sucre.

but there is an important difference, namely that there is no obvious candidate to express (188) in the way that (186) expresses what (185) might have. Put another way, English has, in particular in polarity contexts, pairs like:

(189) John didn't eat very much sugar.

(190) John didn't eat much sugar.

but French, it would seem, has nothing comparable. (We may be able to exclude (188) on the basis of *très* not being +N,[61] as just mentioned for *si*.)

The absence of a word-for-word counterpart in French of *too much sugar* (see (175)) has a partial parallel in the absence in French of a word-for-word counterpart of interrogative *how much sugar*. The parallel is partial in the sense that while French does have *trop petit* as a good match for *too small*, it has no two-word equivalent at all for interrogative *how small*, and more generally for interrogative *how*+adjective.[62] The translation of *how much sugar* would normally be:

(191) combien de sucre

but there is no interrogative:

(192) *combien petit

3.7 Missing wh-words

Now the word *combien* is itself arguably bi-morphemic, with the second morpheme equal to *bien* ('well') and the first essentially the same as the *comme* that occurs in exclamative:

(193) Comme il est petit! ('how he is small')

in:

(194) Vous considérez Jean comme un homme intelligent. ('you consider J as/like a man intelligent')

and in:

(195) Comme j'ai dit,... ('as/like I have said')

The range of English glosses here might be taken to suggest that French *comme/com-* corresponds homonymously to (at least) two distinct elements of English. Yet while homonyms surely exist (cf. the usual *(river) bank* and

(savings) bank), the set here (*how, as, like*) does not seem to be sufficiently arbitrary, so we should feel obliged, I think, to consider the stronger hypothesis that takes *comme/com-* to be a single element. (In a general way, we should be as skeptical as possible about allowing homonyms within the universe of (non-zero) functional elements.)

Comparing *comme* to *as* and *like*, we can note the contrast within English:

(196) As is obvious,...

(197) *Like is obvious,...

and the fact that in this respect *comme* acts like *like*:

(198) *Comme est évident,...

If we add to this the fact that neither instance of *as* in comparatives like *Mary is as smart as Ann* translates as *comme* in French (see the discussion of (155) and (166)) we can conclude that *comme* is closer to *like* than to *as*. Thinking further of the non-standard:

(199) We were saying like as how we'd been there long enough.

it might be that *comme* in (195) is to be analyzed as:[63]

(200) comme HOW j'ai dit ('like HOW I have said')

and similarly for *combien de sucre*, which would be:

(201) com- HOW bien MUCH de sucre ('like HOW well MUCH of sugar' = 'how much sugar')

If interrogative *comme/com-* were to require *bien* to appear (for reasons that would remain to be elucidated), and if *bien* were to require MUCH and if MUCH requires the presence of a noun (rather than an adjective), we would have a way of accounting for the absence in French of interrogative *how small*, in part by denying that French has any overt counterpart to *how* at all.

In which case, we could try to relate the absence of *how* in French to the absence in French of any true counterpart of *why*.[64] French *pourquoi* appears to be used in the same way, but is bimorphemic, and in that sense corresponds closely to English *what...for?*, apart from the preposition stranding.[65]

French may seem to have *how* in interrogatives like:

(202) Comment ont-ils résolu le problème? ('*comment* have they resolved the problem')

but following the preceding discussion, *comment* may itself be bimorphemic, i.e. *comme+-ent* ('like+HOW+-*ent*', with the status of -*ent* needing to be understood), with that perhaps related to its incompatibility with the EVER of free relatives mentioned earlier (see the discussion of (88)). While French has counterparts of *Whoever..., Whatever...* and *Wherever...* with *qui* ('who'), *quoi* ('what') and *où* ('where'), e.g.:

(203) Qui que tu invites,... ('who EVER that you invite')

there is none using *comment*:

(204) However you solve this problem,...

(205) *Comment que tu résolves ce problème,... ('*comment* that you solve this problem')

and similarly for *combien*:

(206) However much money you have,...

(207) *Combien d'argent que vous ayez,... ('*combien* of money that you have')

It may be that unpronounced EVER in French must directly follow the wh-word, but cannot with *comment* or *combien*, because of the presence of -*ent* and *bien*.[66]

Taking French to lack direct counterparts of overt *how* and *why* leads us to *when*, whose apparent French counterpart *quand* acts like *comment* in being impossible in free relatives:

(208) Whenever we see them,...

(209) *Quand que nous les voyions,... ('when that we them see')

and also in simple relatives (see note 66):

(210) the year when we met them

(211) *l'année quand...

Thus *quand*, along with *comment* and *pourquoi*, may be (bi- or) multi-morphemic (presumably at least *qu-+-and*[67]) in French in a way that it is not in English (whereas *qui, quoi* and *où* would correspond more directly to (the possibly bi-morphemic) *who, what* and *where*).

Assuming, then, that French lacks 'simple' overt counterparts to *when, how* and *why*, we can ask why it does (though I have no specific proposal for this case). More generally put, whenever one language lacks an overt element corresponding to one found in another language, one can (and must) ask whether the absence of such in the first language is an irreducible parametric property of the particular element in question - since it might alternatively be that that absence can be derived from independent factors.

A relevant example is:

(212) At the age of seven (years), John...

(213) A l'âge de sept *(ans), Jean...

English readily omits *years*, whereas French cannot omit *ans*. Although this might appear to be an irreducible property of *year(s)* vs. *an(s)*, there is reason to think that this English/French contrast is related to and follows from another difference between them concerning number morphology,[68] namely that English prenominal adjectives (as opposed to French prenominal adjectives) are not accompanied by a plural morpheme. If so, then the availability of unpronounced *year(s)* in English vs. French is not irreducible.

4. Related parameters
4.1 The indefinite article

    I suggested earlier at (140) that French *beaucoup* is more akin to *a good deal* than it is to *many/much*, while neglecting the fact that English *a good deal* contains an *a* that *beaucoup* lacks entirely. While important, this contrast between *a good deal* and *beaucoup* is, I think, orthogonal to the idea put forth that *beaucoup* is bimorphemic and that it does not correspond directly to *many/much*. The basic reason for this orthogonality is that the presence of *a* in *a good deal* vs. *beaucoup* seems to be part of a wider difference between the two languages.

    It is not that French lacks an indefinite article. (In fact, except for various special cases, it prohibits arguments from being bare singulars.[69]) Its *un* behaves in many ways like a typical indefinite article (in addition to being used as the stressed numeral correspondingt to *one*), fitting in naturally with Perlmutter's (1970) hypothesis that indefinite articles are unstressed forms of the numeral *one*.

    It is rather that English imposes an indefinite article in a class of cases where French either does not impose it or does not allow it at all. One concerns predicate nominals. English has:

  (214) Mary is *(a) doctor.

whereas French allows the indefinite article to be absent:[70]

  (215) Marie est médecin.

A second is:

  (216) What *(an) imbecile!
  (217) Quel (*un) imbécile!

a third:

  (218) Mary has published *(a) hundred/*(a) thousand articles.
  (219) Marie a publié (*un) cent/(*un) mille articles.

This last pair is moderately close to *a good deal* vs. *beaucoup*. Even closer is:

  (220) Unfortunately, *(a) good number of linguists disagree with you.
  (221) Bon nombre de linguistes... ('good number of linguists')

where this French example lacks an overt indefinite article.

    This last pair indirectly establishes a link between *a good deal* and *a good number* (and between *beaucoup* and *bon nombre*). Another point in common (this time internal to English) between *a good number* and *a good deal* lies in their non-pluralizability:[71]

  (222) *?Unfortunately, good numbers of linguists disagree with you.
  (223) *Mary has eaten good deals of sugar.

Also:

  (224) *three good numbers of linguists
  (225) *three good deals of sugar

This non-pluralizability in turn recalls the fact that *that long a book* has no plural counterpart:

  (226) *that long books

The indefinite article of *that long a book* cannot be replaced by any other determiner, e.g.:

  (227) *that long some book

    I think this carries back over to:

  (228) *?Unfortunately, some good number of linguists disagree with you.
  (229) *Mary has eaten some good deal of sugar.

It may be that for *that long* to precede the determiner in *that long a book*, the determiner must not only be unstressed, as Perlmutter had the indefinite article, but also be cliticized, in the strong sense of occupying some special clitic position, one available to *a/an*, but not to any other determiner. In which case, we could say that the same holds (as the result of some UG requirement) of the *a/an* of *a good number, a good deal*, i.e. that it must occupy a special clitic position, and then add that French *un* (generally) lacks that option (for reasons to be discovered). The (general) lack of that option in French would, following this reasoning, preclude the appearance of *un* in (217) and (219), and arguably also with *beaucoup*.[72] (French also lacks any word-for-word counterpart of *that long a book*.)

  If the preceding is on the right track, the article difference between *a good deal* and *beaucoup* is orthogonal to the real parallelism between them. Both involve adjective plus noun; *beaucoup* is closer to *a good deal* than it is to *many/much* (which is (usually) not expressed in French). (A separate question is whether French has an unpronounced counterpart of the indefinite article in (some of) the cases mentioned above.)

4.2 The categorial status of *few/little* vs. *peu*
  Unlike *a good deal* and *beaucoup*, which agree in taking a following preposition:
  (230) a good deal of sugar
  (231) beaucoup de sucre
few/little and *peu* diverge in that *de* must intervene between *peu* and the noun:
  (232) peu *(de) livres ('*peu* of books')
  (233) peu *(de) sucre
as opposed to English:
  (234) few (*of) books
  (235) little (*of) sugar
A natural proposal, in part motivated by the appearance of *de/of* with *beaucoup* and *a good deal* (where *deal* is obviously nominal), is that *de* appears with *peu* because *peu* is nominal, and that *of* fails to appear with *few* and *little* because they are adjectival.
  Taking *little* in *little sugar* to be adjectival has the immediate advantage of relating it strongly to the *little* of *a little boy*.[73] In addition, it straightforwardly accounts for *very little sugar, so little sugar*, etc., where *little* takes modifiers/degree words typical of adjectives, as opposed to nouns. The adjectival character of *little* is brought out, too, by the contrast between *a little* and *a lot*, with *lot* acting clearly like a noun. This is seen in the contrast:
  (236) a little (*of) sugar
  (237) a lot *(of) sugar
and similarly for:
  (238) *a whole little sugar
  (239) a whole lot of sugar
as well as:
  (240) (?)They want only a very little sugar.
  (241) *They want (only) a very lot of sugar.
  In pretty much the same way, *few* is clearly adjectival,[74] e.g. *very few books, so few books, fewer books, the fewest books*; also *a whole few books* and *(?)They need only a very few books*.
  More intriguing is the question of the categorial status of French *peu*, whose *de* suggests nominal status, as noted. One might object, though, that nominal status for *peu* is difficult to maintain, given:
  (242) si peu *(de) livres
  (243) très peu *(de) sucre
where *de* appears even in the presence of *si* ('so') and *très* ('very'), which otherwise modify adjectives, e.g. *si grand* ('so big'), *très grand* ('very big').[75]
  But that would be to miss the importance of sentences like:
  (244) Jean a faim. ('J has hunger')
This kind of sentence, the normal way of expressing *John is hungry* is French, has an interesting property. Although *faim* is a noun by familiar criteria (it has intrinsic gender (fem.), it does not agree with anything else in the manner of an adjective, it can take determiners and relative clauses the way nouns do), *faim* has the property that in these sentences with *avoir* ('have') it needs no determiner, and can be modified by adjectival modifiers:
  (245) Jean a si faim. ('J has so hunger' = 'J is so hungry')
  (246) Jean a très faim. ('J has very hunger' = 'J is very hungry').
  Somewhat similarly, French allows, with nouns like *professeur*:
  (247) Jean fait très professeur. ('J makes very professor' = 'J looks very much like a professor')
with no determiner and a modifier that otherwise normally goes with adjectives.
  Yet when *professeur* (and the same holds for *faim*) does have a determiner, this kind of modifier becomes impossible:
  (248) Jean ressemble à un (*très) professeur. ('J resembles to a very professor')
  (249) Jean a une (*très) faim extraordinaire. ('J has a very hunger extraordinary')
Let me take (245)-(247) to involve NPs that are not part of any larger DP at all, i.e. are not associated with any determiner at all, not even an unpronounced one.[76]

    The idea now is that the way to understand the combined presence of *si/très* and *de* in (242)/(243) is to take *peu* there to be a noun that is behaving like *faim* and *professeur* in (245)-(247) (i.e. *peu*, though a noun, is not associated with any determiner).[77] It is the nominal status of *peu* that determines the presence of *de*; yet in French nominal status is not necessarily incompatible with modification by *si* ('so') and *très* ('very'), as we have seen.

    That *peu* is a noun is supported by its ability to occur with an overt determiner in examples like:

   (250) un peu de sucre ('a *peu* of sugar')

Of interest is the fact that when *peu* is preceded by *un*, it can no longer be modified by *très* (just as we saw in (248)/(249) for *faim* and *professeur*):

   (251) *un si/très peu de sucre

Rather it acts like a normal noun embedded within DP and can take an adjective:

   (252) un petit peu de sucre ('a little *peu* of sugar')

When there is no determiner, *petit* is not possible:

   (253) *Jean a mangé petit peu de sucre. ('J has eaten little *peu* of sugar')

    There is obviously now a problem of sorts with the glosses. In (252), *peu* can hardly be glossed as *little*, given the presence of *petit* = 'little'. Rather what comes to mind is:

   (254) a little bit of sugar

In fact, if we take *peu* to be the French counterpart of English *bit*, we have an immediate understanding of the fact that *peu* requires a following *de* in, for example, (242)/(243), since *bit* in English is clearly a noun (that requires *of* before the associated NP):

   (255) a bit *(of) sugar

Further indication of the nominal (as opposed to adjectival) character of *bit* comes from (254) vs.:

   (256) *a very bit of sugar

(Moreover, *a bit of N* shares with *un peu de N* a strong preference for mass over count.) The possibility of (242)/(243) in French is compatible with the nominal character of *peu*, as we saw from the discussion of (245)-(247).

    Against the background of the conclusion that *peu* corresponds to *bit*,[78] let us turn to some explicit questions of parameters. The fact that French allows (245)-(247), and English not, may well reduce to the fact that in (apparently) simpler cases French allows (215) and:

   (257) Jean est professeur. ('J is professor')

while English does not allow:[79]

   (258) *John is professor/teacher/doctor.

(If so, then *faim* in (245)-(246) and *professeur* in (247) will probably turn out not to be an arguments.)

    Taking:

   (259) un peu de sucre

to match (almost) perfectly:

   (260) a bit of sugar

we can ask why there is a sharp contrast when the indefinite article is omitted:

   (261) Marie a mangé peu de sucre.

   (262) *Mary has eaten bit of sugar.

To express (261) English has:

   (263) Mary has eaten little sugar.

whose word-for-word equivalent in French is ill-formed:

   (264) *Marie a mangé petit sucre.

Let me suggest that the answer might lie in aligning (252) and (254) and in claiming that *a bit* and *un peu* always require adjectival modification, which need not be overt, i.e. that (259)/(260) are:[80]

   (265) un LITTLE peu de sucre

   (266) a LITTLE bit of sugar

    From this perspective, we could say, first, that (262) reflects the greater English need for a determiner discussed in (214)ff.,[81] second, that that need is waived if *bit* is unpronounced (and licensed by *little*), as it arguably is in (263):

   (267) ...little BIT sugar

third, that French does not allow *peu* to be unpronounced at all, so that (264) is not available:

   (268) ...*petit PEU sucre

and fourth, that (267) generalizes to:

   (269) a little BIT sugar

with the indefinite article.

4.3 In what sense can a difference in category be a parameter?

Note that although (263) and (261) are natural translations of each other in French and English, the present proposal is that *little* is an adjective while *peu* is a noun. At the same time, taking into account (265)-(269), we can see that the claim is definitely not that *little* is the English equivalent of the noun *peu* in an adjectival guise. Rather, *little* corresponds strongly to the French adjective *petit* and *peu* corresponds strongly to the English noun *bit*. The differences between English and French in this area of syntax depend on what can or cannot be pronounced and under what conditions.

Put another way, this is NOT an example of a parameter of the sort:

(270) Some element X in UG is realized as category A in one language but as a distinct category B in some other language.

The question is, is (270) ever an admissible type of parameter? In the spirit of Baker's (1988, 46) UTAH principle, the answer should arguably be negative. Yet there do seem to be cases that one might be tempted to look at as instances of (270). In fact there is (at least) one revealing case internal to English itself that bears, I think, on the (in)correctness of (270). Consider:

(271) John has enough/sufficient money to buy a new house.

It is very hard to see any difference in interpretation between *enough* and *sufficient*. On the other hand, there are some very sharp syntactic differences:

(272) John is sufficiently/*enoughly rich.
(273) John has a sufficient/*enough amount of money.
(274) insufficient(ly); *unenough/*inenough

In these various ways, *sufficient* looks like an adjective (in allowing -*ly* and *in-* and in occurring between determiner and noun) and *enough* does not. *Enough* is usually called a degree word (as distinct from an adjective) that in English has a specific word order property mentioned earlier at (174):

(275) John has rich enough friends.

which is not possible with:

(276) *John has rich sufficiently friends.

In light of all this, one might be tempted to conclude that *enough* and *sufficient* correspond to one and the same UG element, except that *enough* is that element realized as a degree word, whereas *sufficient* is its realization as an adjective.

This is not so much wrong, I think, as incomplete, as one can see by extending the discussion to:

(277) That argument does not suffice to make the point.
(278) That argument is not enough to make the point.

In the light of the verb *suffice*, it is natural to take *sufficient* to be a derived form, i.e. to be an adjective (or participial adjective) composed of *suffice* plus an adjectival suffix. If so, then it is primarily the relation between *enough* and *suffice* that we need to ask about. A clue comes from German, whose counterpart of *enough* is *genug*, and in which *suffice* can be translated as the verb *genügen*, transparently based on *genug*. Taking this to be an instance of 'incorporation' (perhaps in the sense of Hale and Keyser (1993) and related work) and transposing back to English, we arrive at the proposal that *suffice* has (in suppletive fashion) incorporated *enough*, and that it is only in that sense that *suffice* and *enough* correspond to the same UG element.

Saying that *suffice* incorporates *enough* can be interpreted to mean simply that sentences with *suffice* contain a non-verbal node corresponding to the degree element ordinarily realized in English as *enough*. A possible, more precise proposal would have (277) derived from a structure resembling (278), i.e. to have *enough* incorporated into *be* (or perhaps just moved to *be*), whether by head-movement or (see note 12) by phrasal movement. Generalizing, we reach the principle (cf. Grimshaw (1979), Pesetsky (1995, 3):

(279) A given UG element is invariably associated with only one syntactic category.

(279) by itself underdetermines the answer to the question which of such a pair is to be analyzed as 'incorporated into' which, and how exactly that is to be done. In addition (cf. Pesetsky's (1995, chap. 3) discussion of the range of theta roles associated with psych verbs), it does not provide an algorithm for determining when two morphemes/words reflect a common UG element. *Suffice* and *enough* seem to constitute a very plausible pair; other cases may be more complex.

An interesting cross-linguistic case is mentioned by Cinque (2001, 111):

(280) John almost fell.
(281) Jean a failli tomber. ('J has *failli* fall$_{infin}$')

The French example (281) appears to be an extrememly faithful rendition of (280), although it contains an auxiliary verb *faillir* in past participle form (in addition to a finite form of auxiliary *have*). (281) is quite different in shape from (280), despite the apparent (absolute) synonymy. It might be that, along the lines of (270), this is an instance of a single UG element being realized variously as an adverb in English and a verb in French (which would be incompatible with (279)).

Note that this question cuts across the cross-linguistic/one language dimension, since within English we have:

   (282) John just missed falling.

which seems very close in interpretation to (280) and quite close in shape to (281). English also allows:

   (283) John came close to falling.

If (280)-(283) (or some subset of them) do reflect a common UG element, then (279) becomes relevant, and imposes (some version of) an 'incorporation' analysis (as opposed to having *almost*, *miss/faillir* and/or *close* as varying categorial realizations of one UG element).[82]

Ultimately, the correct theory of UG will provide a restrictive characterization of the set of available 'incorporation' analyses that will in turn impose limits on what pairs/sets of sentences can be related in that fashion. (277)/(278) seems very likely to constitute a pair that can (and must) be so related. Whether that is also true of (280)-(282) is a little less clear, though for those to be syntactically related seems plausible. Whether that relation should extend to (283) seems a bit more uncertain, but still possible. (How wide the range of sentences will turn out to be that fall under this kind of relation will depend in part on the limits imposed by the theory of incorporation/movement, and in part on how impoverished the (functional part of the) UG lexicon is.[83])

5. Comparative syntax and Greenbergian typology
5.1 Syntactic data

Comparative syntax must subsume the kinds of universals discovered within the Greenbergian typological tradition.[84] That tradition is obviously highly macro-comparative in the sense of macro-comparative mentioned earlier in section 1.2. But before going on to say something about the relation between Greenbergian universals and generative comparative syntax, let me make a digression to the question of syntactic data.

Generative syntax taught us early on that in working on a given language, a native speaker has an advantage over a non-native speaker. Being able to provide acceptability judgments oneself is an advantage. It saves time and energy, which are finite. I can work on English faster than I can work on French. I can see no disadvantage to that whatsoever. (When necessary, I can also do informant work with speakers of English, as I always must with speakers of French.)

It is almost certainly the case (although not literally provable, as usual) that I can go deeper into the syntax of English, and learn more about the human language faculty from it, than I ever could by devoting myself in isolation to the study of a language that no linguist had ever worked on, no matter how many years I devoted to it. The reason is not simply one of how fast I can work on one or the other. In working on English I can see, if not actually feel, connections between phenomena. In working on one problem, on one kind of sentence, I can readily jump to others that are relevant. Other data always come to mind because I am a native speaker of English. That can happen to some extent when I work on French, but appreciably less. If I were to try to work on Chinese, it would happen not at all, and my chances of achieving descriptive adequacy in Chomsky's (1965, 24) sense would be greatly reduced. (Every syntactician is a full-fledged native speaker of at least one language (occasionally of some very small number of languages). Which language that is is an accident of history that is of practical importance in that it determines which language (or languages) we have an advantage working on.)

The disadvantages that we all face when working on a language not our own can fortunately be reduced. We can enlist the help of syntacticians who are native speakers of that language (as I have done for the past thirty-five or so years for French). They can make the connections that we cannot (or not as readily). Our chances of achieving descriptive adequacy can increase substantially.

All syntacticians face a problem when it comes to languages for which there are at a given time no native-speaking syntacticians available. Sometimes there are non-linguist informants available who are gifted at syntax, who can make connections, who can suggest other sentences that we haven't thought of, who can point out interpretations that would have escaped us. Sometimes there are not (or not to a sufficient degree) and in that case we have to accept that that language (at that time) may not be fertile ground for syntactic study (or at least not to the degree desired), and that it cannot participate to the same degree as others in the construction of syntactic theory.

To a certain extent, these considerations cut across macro- and micro-comparative syntax. There may be a North Italian dialect that I am particularly interested in, but for which I can find no native-speaking syntactician. Or even worse, if it is a dialect once spoken in France, I may be able to find no native speaker at all. In that case, even if

there is a very good grammar available, my chances of gleaning something of theoretical importance are reduced even further (though not necessarily to zero). On the other hand, in the case of North Italian (or French) dialects, I would be dealing with a language whose broad outlines are familiar and many (but not all) of whose properties are well-understood, by transposition from related dialects for which there are native speakers or native-speaking syntacticians.

In that sense, the challenges of this sort posed by micro-comparative syntax (in well-studied families) are on the whole more manageable than the corresponding problems that arise with work in macro-comparative syntax, where a potentially interesting language may be inaccessible to a more substantial degree.

Cutting across all of this is the question of accuracy of the data, and accuracy of the descriptive generalizations. For languages like English, Japanese, etc., for which there are many native-speaking syntacticians, replicability of data is readily at hand. Inaccurate or unclear data or generalizations can be picked up and criticized widely and quickly. The fewer the number of native-speaking syntacticians for a given language, the greater the danger that a mistake will fail to be pointed out.

In which case those of us who try to keep track of and use work from many languages (whether in a micro- or macro-comparative vein) risk incorporating misinformation into our own work. There is no perfect solution, only the need to remain consistently sceptical, taking into account the range and variety of sources for the data and generalizations from a given language. (The judging of analyses and theoretical proposals involves additional factors of a more language-independent sort.)

There is no implication here that every individual syntactician needs to take into account many languages. But the field as a whole does, and has. The number of languages taken into account has increased dramatically over the past forty years, in part simply as the result of the increase in the number of languages spoken natively by syntacticians from around the world. (The number of languages/dialects for which there exist native-speaking syntacticians is of course still modest, compared to the number of currently spoken languages/dialects, not to mention the number of possible human languages (see section 2).)

Greenbergian typological (highly macro-comparative) work has emphasized large numbers of languages (where 'large' must be kept in the perspective just mentioned),[85] some or perhaps many of which have not been worked on by native-speaking linguists. To some extent the ensuing potential problems of observational and especially descriptive adequacy have been mitigated by a restriction to relatively more accessible syntactic properties (word order, agreement, e.g., as compared with parasitic gaps, quantifier scope, weak crossover, etc.). The resulting universals (more precisely, hypotheses concerning UG) have sometimes failed to hold up over time (as happens in all varieties of syntax/science).[86] Other times, the proposed universals seem to have substantial solidity.

5.2 Missing languages

Comparative syntax can and must take these Greenbergian universals (the ones that seem to be solid) as facts to be explained, as facts that are likely to tell us something important about the human language faculty. It seems, for example, that verb-initial and complementizer-final are mutually exclusive, i.e. that one never finds a language whose normal order is:[87]

(284) *V IP C

At first glance, this is surprising, in particular against the background of the widespread mixed-headedness found across languages. (The idea that languages are predominantly either head-initial or head-final looks thoroughly wrong, especially when one takes into account a wide variety of heads, including those that are not pronounced.) The question, then, is why the order within CP should 'affect' the relative order of CP and V. I have proposed elsewhere that (284) can be made sense of (only) if one gives up the idea that there is a constituent CP composed of C and IP. Rather, C is merged outside VP and IP moves to it. In languages like English of the 'V C IP' sort, the visible word order is in part the result of VP-movement to the Spec of C. That is possible only if C is 'initial'. No reasonable combination of movements will yield (284).[88]

Generative syntax has taught us the importance of paying close attention to what is not there. Sentences that are unacceptable in a given language play a central role in telling us about the grammar of that language (and about UG). In a parallel fashion, comparative syntax teaches us the importance of observing what a priori plausible types of languages are not there, the Greenbergian case of (284) being one example.

In a rather different area of (less macro-comparative) syntax, there is the case of ECM constructions. The existence in English of sentences like:

(285) Everybody believes John to have made a mistake.

is well-known, and various analyses have been proposed. But the proper analysis of (285) must allow us to understand why (285) is not possible (or much less widely possible) in many other languages, e.g. French. Some

analyses are too powerful (i.e. reflect theories that are too powerful) in that they make it 'too easy' to generate one or other kind of sentence. In that sense, an approach to (285) based on S-bar (CP) deletion is unsatisfactory - it gives us no immediate way to understand why (285) is not available in all languages.[89]   Another example, closer to (284), lies in the area of 'heavy-NP-shift', as exemplified in English by:
   (286) They put back on the table the book that had just fallen.
Again, various analyses have been proposed over the years that I think again (despite their increasingly positive contributions) have made it 'too easy' to generate such sentences, and that have not made it easy to understand why some VO languages such as Haitian lack (286) entirely.[90] That they do, must, I think, be accounted for by any proposal about (286) in English.

5.3 English and Haitian
   In other words, crucial data bearing on (286) in English comes from Haitian. There is no paradox. As soon as we grant that all human languages have a common UG 'infrastructure', it follows (since evidence bearing on that common infrastructure can come from any language, and since any analysis of a particular type of sentence in any language will rest in part on hypotheses about that infrastructure) that evidence bearing on one language can readily and unsurprisingly come from another.
   As for why heavy-NP-shift is absent in Haitian, I think the key is the observation that Haitian has D following NP, rather than NP following D as in English. What this means is that for Haitian to have (286), it would have to allow:
   (287) *V...NP D
which is arguably impossible in a way parallel to the similar (284), with D in (287) playing the role of C in (284).[91]
   Similarly, Haitian lacks right-dislocation, and also right-node raising,[92] i.e. it lacks counterparts of:
   (288) We like him a lot, the guy over there.
   (289) We like, but they dislike, the young man who was just elected mayor.
Again, any analysis of English right-dislocation or English RNR, must (together with the theory in which it is embedded) allow an account of their absence in Haitian.[93] (An initial proposal would be that both right-dislocation and RNR involve D in a way parallel to heavy-NP-shift, despite various ways in which the three constructions diverge.[94])

5.4 Adpositions
   Closer still to (284) than is (287) is the following (with P an adposition, not a particle):
   (290) *V DP P
which is a way of stating the Greenbergian near-universal that postpositional languages are generally not verb-initial.[95] To this generalization there are some apparent counterexamples, but it is at least possible that they are in fact instances of 'V P DP P' with a phonetically unrealized preposition (and a final 'P' that is better analyzed as nominal). Assuming that to be so, we need an account of (290).
   As in the discussion of (284), I think that the traditional approach to P, which has it merged with DP as complement, provides no way of understanding the apparent 'effect' of the relative order of P and DP on their relative order with respect to V. Instead, we need to give up the idea that P is merged with DP, in favor of having P introduced outside VP, as in the derivation (292), for (291):
   (291) They're looking at us.
   (292) ...looking us --> merger of K
        ...K looking us --> movement of DP to Spec,K[96]
        ...us$_i$ K looking t$_i$ --> merger of P
        ...at [us$_i$ K looking t$_i$] --> movement of VP to Spec,P
        ...[looking t$_i$]$_j$ at [us$_i$ K t$_j$]
K in (292) is a Case element of the sort that is paired with P in a visible fashion in some languages such as German, Russian, etc. (but unpronounced in English). VP-movement in the last step is remnant movement of a familiar sort.
   The key idea with respect to word order here is that V can come to precede P only via such VP-preposing, and that that preposing is dependent on P having an available Spec position. If P (and categories in general) can have only one Spec position, then VP-preposing in (292) is incompatible with DP being in Spec,P. In which case, given the antisymmetric claim (which I take to be valid) that DP in (290) could not be in complement position of P , (290) is excluded.
   We can readily recast (290) in terms of clustering of properties. According to (290), the property of a language 'being postpositional' clusters together with the property 'being V-final'. The proposal sketched in (292) is part of

the explanation. Another piece of the whole picture must of course be the distinction between prepositions and postpositions. If a language is prepositional, it has VP-preposing of the sort illustrated in (292). But from the perspective of a theory that attributes to sentences with prepositions a derivation like (292), what kind of derivation should be attributed to sentences with postpositions? And what kind of parameter underlies the difference between prepositions and postpositions?

In Kayne (1994) I had taken prepositions to in effect be merged with their associated DP as complement, and postpositions to be the same except that postpositions further had that DP complement move to their Spec. Postpositions from that perspective could have been thought of as having a feature inducing movement to Spec (and lacking in prepositions). However if (292) is correct in denying the existence of PP and in using K in an essential way, the preposition/postposition difference needs to be rethought.

5.5 Movement as a side effect of doubling

The proposal made in Kayne (2003) has the following components. First, just as Spec,P in (292) does not contain DP, so it does not with postpositions, either. Second, K is uniformly introduced outside VP (as P is, but earlier), in both prepositional and postpositional languages. Third, postpositional languages with overt K seem to have 'DP K P' order rather than '*DP P K' order. Putting these together leads to the idea that postpositions are necessarily accompanied by an unpronounced double (called P') that is merged later than K but earlier than P itself. A derivation would be (using English morphemes):

(293) ...looking us --> merger of K
       ...K looking us --> movement of DP to Spec,K
       ...us$_i$ K looking t$_i$

At this point the unpronounced double of P, i.e. P', is introduced, with VP moving to its Spec (just as VP moves to Spec,P in (292), with prepositions):

(294) ...us$_i$ K looking t$_i$ --> merger of P'
       ...P' us$_i$ K looking t$_i$ --> movement of VP to Spec,P'
       ...[looking t$_i$]$_j$ P' us$_i$ K t$_j$

Then P itself is merged, with KP moving to its Spec:

(295) ...[looking t$_i$]$_j$ P' us$_i$ K t$_j$ --> merger of P
       ...at [looking t$_i$]$_j$ P' us$_i$ K t$_j$ --> movement of KP to Spec,P
       ...[us$_i$ K t$_j$]$_k$ at [looking t$_i$]$_j$ P' t$_k$

The analysis reflected in the derivation (293)-(295) has the property that it locates the difference between prepositions and postpositions in the unpronounced double P', which is present with postpositions, but absent with prepositions.[97] In so doing, it establishes a link (though how close a link remains to be ascertained) with other parametric differences involving doubling, such as the difference between Spanish and French with respect to overt dative clitic doubling (widespread in Spanish, absent in French with non-dislocated lexical DPs).

The derivation in (292) differs from that in (293)-(295) in that the latter has P' and the former does not. We can ask how that kind of parameter (and similarly for clitic doubling) fits in with the idea that parameters are invariably (simple) features of functional heads. An immediate question is whether French has unpronounced clitic doubles in those cases in which Spanish has overt clitic doubles. If the answer is positive,[98] then Spanish vs. French clitic doubling simply becomes another instance of pronunciation vs. non-pronunciation, with the question remaining as to how exactly to assure the correct distribution of pronounced and unpronounced clitic doubles. The same holds for unpronounced P' vs. pronounced P', i.e. pronounced adpositional doubles, as mentioned in note 97, with the additional (open) question whether pronounced adpositional doubles are ever found with postpositions.

A potentially interesting property of (292) vs. (293)-(295) is that there is no irreducible movement difference involved (between prepositions and postpositions). DP moves to Spec,K in both. VP moves to Spec,P with prepositions and to Spec,P' with postpositions, but that is less a movement difference than just the difference between pronounced P and unpronounced P'. The only salient difference in movement appears to be that what moves to Spec,P in (292) is VP, whereas what moves to Spec,P in (293)-(295) is KP.

5.6 Feature-driven movement or 'closeness-driven' movement?

However, focussing on the category difference VP vs. KP obscures an important similarity between the two derivations. In both, what moves to Spec,P is the complement of the head just below P (K in (292), P' in (295)).

We can express this similarity by saying in part that P must have some phrase move to its Spec (P has an EPP feature).[99] The question is what phrase. Assume:[100]

(296) The complement of a given head H can never move to the Spec of H.

(In feature-checking terms, this could be achieved if upon Merge the maximal set of matching features had to be checked.[101]) Then VP-movement to Spec,P in (292) and KP-movement to Spec,P in (295) would both follow from:

(297) Move to Spec,P the category closest to P (that is not excluded by (296)).

(297) recalls Chomsky's (1995, 296) MLC and Rizzi's (1990) relativized minimality, except that (297) is blind to specific categorial (and other) features.

In essence what (296)/(297) says is that what gets moved to Spec,P is determined by what was merged below P and in what order. For example, KP is moved to Spec,P in (295) as the result of P' being merged just between K and P, i.e. just above K and just below P.

Generalizing (297) to all (phrasal) movement would yield:

(298) Move to Spec,H the category closest to H (that is not excluded by (296)).

If (298) is true, it means that what is moved where is entirely determined by what is merged (in a given derivation) and in what order.

Setting aside the question of the validity of (298) as being beyond the scope of this article, we can still see that (297) has the effect that prepositions and postpositions will not differ with respect to movement in any way that is not a consequence of the merger vs. non-merger of P'. Put another way, the parameter underlying prepositional vs. postpositional languages has to do at bottom with the presence vs. absence of P', i.e. of a certain kind of doubling.

This approach to adpositions is compatible with the antisymmetry claim that every word order difference rests on a difference in movement, though the discussion underscored the point that that claim does not by itself determine exactly what these cross-linguistic movement differences themselves rest on.

Orthogonal to the question whether movement is feature-driven in Chomsky's sense or subject to (298) or both is the question whether a movement approach to cross-linguistic word order differences should also extend to cross-linguistic morpheme order differences involving affixes (i.e. morphemes not considered to be words) and to those involving clitics. Let me assume without discussion that ordering differences involving clitics, as, e.g., those alluded to in the discussion of (4)/(5) and more generally those discussed in Kayne (1991), definitely do rest on movement differences, whether on differences in clitic movement or on differences in verb or verb phrase movement (or both).

Turning to affixes, one example of a morpheme order difference would hold between, say, Bambara, which has a causative prefix (v. Koopman (1992)), and Bantu languages that have a causative suffix. I think the key observation here was already made by Greenberg (1966, 93), whose Universal 27 pointed out a certain correlation between prefixation/suffixation and the position of adpositions relative to object. What Greenberg's correlation suggests is not merely that movement is involved in establishing whether some affix ends up looking like a prefix or like a suffix (which could hold via movement within the 'word'), but something much stronger, namely that movement not only underlies all cross -linguistic morpheme order differences, but those movements that affect affix order are not segregated from phrasal movement of the familiar sort.[102]

6. Conclusion

In these 'notes', I have touched on some (and only some) of the ways in which comparative syntax can shed light on a wide variety of questions concerning the human language faculty. In many or most or perhaps even all of the cases treated, the same results could not have been reached otherwise. Comparative syntax has become an indispensable, if not privileged, part of our attempt to understand the (syntactic component of the) human language faculty.

References:

Azoulay-Vicente, A. (1985) *Les tours comportant l'expression* de + *adjectif*, Droz, Geneva-Paris.

Baker, M.C. (1988) *Incorporation. A Theory of Grammatical Function Changing*, University of Chicago Press, Chicago, Ill.

Baker, M.C. (1996) *The Polysynthesis Parameter*, Oxford University Press, New York.

Bayer, J. (2001) "Two Grammars in One: Sentential Complements and Complementizers in Bengali and other South Asian Languages," in P.Bhaskarorao and K.V. Subbarao (eds.) *The Yearbook of South Asian Languages: Tokyo Symposium on South Asian Languages - Contact, Convergence and Typology*, Sage Publications, New Dehli, 11-36.

Beghelli, F. & Stowell, T. (1997) "Distributivity and negation: The Syntax of *Each* and *Every*," in A. Szabolcsi (ed.) *Ways of scope taking*, Kluwer, Dordrecht, 71-107.

Benincà, P. (1994) *La variazione sintattica. Studi di dialettologia romanza*, Il Mulino, Bologna.

Benincà, P. and C. Poletto (1998) "A Case Of *Do*-Support in Romance," *Venice Working Papers in Linguistics*, 8, 27-64.

Bobalijk, J.D. and H. Thráinsson (1998) "Two Heads Aren't Always Better than One," *Syntax*, 1, 37-71.

Carstens, V. (1993) "On Nominal Morphology and DP Structure," in S.A. Mchombo (ed.) *Theoretical Aspects of Bantu Grammar 1*, CSLI Publications, Stanford, California, 151-180.

Carstens, V. (1997) "Empty Nouns in Bantu Locatives," *The Linguistic Review*, 14, 361-410.

Chomsky, N. (1957) *Syntactic Structures*, Mouton & Co., The Hague.

Chomsky, N. (1965) *Aspects of the Theory of Syntax*, The MIT Press, Cambridge, Mass.

Chomsky, N. (1981) *Lectures on Government and Binding*, Foris, Dordrecht.

Chomsky, N. (1986) *Knowledge of Language*, Praeger, New York.

Chomsky, N. (1995) *The Minimalist Program*, The MIT Press, Cambridge, Mass.

Chomsky, N. (2001) "Derivation by Phase," in M. Kenstowicz (ed.) *Ken Hale. A Life in Language*, The MIT Press, Cambridge, Mass., 1-52.

Chomsky, N. and H. Lasnik (1993) "Principles and Parameters Theory," in J. Jacobs, A. von Stechow, W. Sternefeld and T. Vennemann (eds.) *Syntax: An International Handbook of Contemporary Research*, Walter de Gruyter, Berlin (reprinted as chapter 1 of Chomsky (1995)).

Cinque, G. (1982) "On the Theory of Relative Clauses and Markedness," *The Linguistic Review*, 1, 247-294.

Cinque, G. (1990) *Types of A'-Dependencies*, The MIT Press, Cambridge, Mass.

Cinque, G. (1999) *Adverbs and Functional Heads. A Cross-Linguistic Perspective*, Oxford University Press, New York.

Cinque, G. (2001) "'Restructuring' and Functional Structure," *University of Venice Working Papers in Linguistics*, 11, 45-127.

Cinque, G. (2002) "A Note on Restructuring and Quantifier Climbing in French," *University of Venice Working Papers in Linguistics*, 12, 7-30.

Cinque, G. (2003) "A Note on Verb/Object Order and Head/Relative Clause Order," ms., University of Venice.

Corver, N. (1997) "*Much*-Support as a Last Resort," *Linguistic Inquiry*, 28, 119-164.

Dejean, Y. (1993) "Manifestations en créole haïtien du principe d'adjacence stricte".

Delfitto, D. and J. Schroten (1991) "Bare Plurals and the Number Affix in DP," *Probus*, 3, 155-185.

Delorme, E. and R.C. Dougherty (1972) "Appositive NP Constructions: *we, the men*; *we men*; *I, a man*; etc.," *Foundations of Language*, 8, 2-29.

den Besten, H. (1978) "On the Presence and Absence of *Wh*-Elements in Dutch Comparatives," *Linguistic Inquiry*, 9, 641-671.

Déprez, V. (to appear) "Morphological Number, Semantic Number and Bare Nouns," *Lingua*,

Dryer, M.S. (1988) "Object-Verb Order and Adjective-Noun Order: Dispelling a Myth," *Lingua*, 74, 185-217.

Dryer, M.S. (1992) "The Greenbergian Word Order Correlations," *Language*, 68:81-138.

Emonds, J. (1978) "The Verbal Complex V'-V in French," *Linguistic Inquiry*, 9, 151-175.

Fodor, J.A. (1970) "Three Reasons for Not Deriving *kill* from *cause to die*," *Linguistic Inquiry*, 1, 429-438.

Franks, S. (1995) *Parameters of Slavic Morphosyntax*, Oxford University Press, New York.

Greenberg, J.H. (1966) "Some Universals of Grammar with Particular Reference to the Order of Meaningful Elements," in J.H. Greenberg (ed.) *Universals of Language*, second edition, The MIT Press, Cambridge, Mass., 73-113.

Grimshaw, J. (1979) "Complement Selection and the Lexicon," *Linguistic Inquiry*, 10, 279-326.

Gross, M. (1977) *Grammaire transformationnelle du français. Syntaxe du nom*, Paris, Larousse.

Guardiano, C. and G. Longobardi (2003) "Parametric Syntax as a Source of Historical-Comparative Generalisations," ms., University of Pisa/University of Trieste.

Hale, K. and S.J. Keyser (1993) "On Argument Structure and the Lexical Expression of Syntactic Relations," in K. Hale and S.J. Keyser (eds.) *The View from Building 20. Essays in Linguistics in Honor of Sylvain Bromberger*, The MIT Press, Cambridge, Mass., 53-109.

Harris, J.W. (1969) *Spanish Phonology*, The MIT Press, Cambridge, Mass.

Hellan, L. and K.K. Christensen (1986) "Introduction," in L. Hellan and K.K. Christensen (eds.) *Topics in Scandinavian Syntax*, Reidel, Dordrecht, 1-29.

Holmberg, A. and G. Sandström (1996) "Scandinavian Possessive Constructions from a Northern Swedish Viewpoint," in in J.R. Black and V. Motapanyane, eds., *Microparametric Syntax and Dialect Variation*, Benjamins, Amsterdam, 95-120.

Hornstein, N. (1999) "Movement and Control," *Linguistic Inquiry*, 30, 69-96.

Hornstein, N. (2001) *Move! A Minimalist Theory of Construal*, Blackwell, Malden, Mass. and Oxford.

Houngues, D.M.K. (1997) "Topics in the Syntax of Mina," Doctoral dissertation, Boston University.

Jackendoff, R. (1977) *X' Syntax: A Study of Phrase Structure,* MIT Press, Cambridge, Mass.

Jayaseelan, K.A. (2000) "Questions and Question-Word-Incorporating Quantifiers in Malayalam," ms., CIEFL, Hyderabad.

Jespersen, O. (1970 (1914)) *A Modern English Grammar on Historical Principles. Part II. Syntax* (*First Volume*), George Allen & Unwin, London and Ejnar Munksgaard, Copenhagen.

Julien, M. (2002) *Syntactic Heads and Word Formation*, Oxford University Press, New York.

Kayne, R.S. (1975) *French Syntax. The Transformational Cycle*, MIT Press, Cambridge, Mass.

Kayne, R.S. (1976) "French Relative 'que'," in F. Hensey and M. Luján (eds.) *Current Studies in Romance Linguistics*, Georgetown University Press, Washington, D.C., 255-299.

Kayne, R.S. (1981a) "On Certain Differences between French and English," *Linguistic Inquiry*, 12, 349-371 (reprinted in Kayne (1984)).

Kayne, R.S. (1981b) "Two Notes on the NIC," in A. Belletti, L. Brandi & L. Rizzi (eds.) *Theory of Markedness in Generative Grammar. Proceedings of the 1979 GLOW Conference*, Scuola Normale Superiore, Pisa, 317-346 (reprinted in Kayne (1984)).

Kayne, R.S. (1984) *Connectedness and Binary Branching*, Foris, Dordrecht.

Kayne, R.S. (1991) "Romance Clitics, Verb Movement and PRO," *Linguistic Inquiry*, 22, 647-686 (reprinted in Kayne (2000)).

Kayne, R.S. (1994) *The Antisymmetry of Syntax*, The MIT Press, Cambridge, Mass.

Kayne, R.S. (1996) "Microparametric Syntax. Some Introductory Remarks" in J.R. Black and V. Motapanyane, eds., *Microparametric Syntax and Dialect Variation*, Benjamins, Amsterdam, ix-xviii (reprinted in Kayne (2000)).

Kayne, R.S. (2000) *Parameters and Universals*, Oxford University Press, New York.

Kayne, R.S. (2001) "A Note on Clitic Doubling in French" in Guglielmo Cinque and Giampaolo Salvi (eds.), *Current Studies in Italian Syntax. Essays offered to Lorenzo Renzi*, Amsterdam: North-Holland (North-Holland Linguistic Series: Linguistic Variations Volume 59), 189-212 (reprinted in Kayne (2000)).

Kayne, R.S. (2002a) "Pronouns and Their Antecedents" in S. Epstein and D. Seely (eds.), *Derivation and Explanation in the Minimalist Program*, Blackwell, Malden, Mass., 133-166.

Kayne, R.S. (2002b) "On Some Prepositions That Look DP-internal: English *of* and French *de*", *Catalan Journal of Linguistics*, 1, 71-115.

Kayne, R.S. (2003) "Antisymmetry and Japanese", *English Linguistics*, 20, 1-40.

Kayne, R.S. and J.-Y. Pollock (2001) "New Thoughts on Stylistic Inversion" in *Inversion in Romance*, A. Hulk and J.-Y. Pollock (eds.), Oxford University Press, New York, 107-162.

Kayne, R.S. (to appear - a) "On the Syntax of Quantity in English"

Kayne, R.S. (to appear - b) "Silent Years, Silent Hours".

Kayne, R.S. (to appear - c) "Prepositions as Probes".

Kayne, R.S. (to appear - d) "Some Remarks on Agreement and on Heavy-NP-Shift"

Kester, E.-P. (1996) *The Nature of Adjectival Inflection*, Doctoral dissertation, University of Utrecht (OTS Dissertation Series).

Kishimoto, H. (2000) "Indefinite Pronouns and Overt N-Raising," *Linguistic Inquiry*, 31, 557-566.

Koopman, H. (1992) "On the Absence of Case Chains in Bambara," *Natural Language and Linguistic Theory*, 10, 555-594.

Koopman, H. and A. Szabolcsi (2000) *Verbal Complexes*, The MIT Press, Cambridge, Mass.

Kuroda, S.-Y. (1988) "Whether We Agree or Not: A Comparative Syntax of English and Japanese," *Lingvisticae Investigationes*, 12, 1-47.

Landau, I. (2003) "Movement Out of Control", *Linguistic Inquiry*, 34, 471-498.

Lanham, L.W. (1971) "The Noun as the Deep-Structure Source for Nguni Adjectives and Relatives", *African Studies*, 30, 299-311.

Larson, R.K. (1987) "'Missing Prepositions' and the Analysis of English Free Relative Clauses," *Linguistic Inquiry*, 18, 239-266.

Legate, J.A. (2002) "Warlpiri: Theoretical Implications," Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, Mass.

Lobeck, A. (1995) *Ellipsis. Functional heads, licensing, & identification*, Oxford University Press, New York.

Longobardi, G. (1994) "Reference and proper names," *Linguistic Inquiry* 25, 609-665.

Longobardi, G. (2003) "Methods in Parametric Linguistics and Cognitive History," ms., University of Trieste.

Martí Girbau, N. (2001) "*De* in Quantitative Constructions: a Marker of Unspecificity," *Going Romance 2001. Main Session. Workshop on Determiners. ABSTRACTS*, University of Amsterdam, 58-59.

McCloskey, J. (1984) "Raising, Subcategorization and Selection in Modern Irish," *Natural Language and Linguistic Theory*, 1, 441-485.

Nunes, J. (2001) "Sideward Movement," *Linguistic Inquiry*, 32, 303-344.

O'Neil, J. (1995) "Out of Control," in J.N. Beckman (ed.) *Proceedings of NELS 25*, GLSA, University of Massachusetts, Amherst, 361-371.

O'Neil, J. (1997) *Means of Control: Deriving the Properties of PRO in the Minimalist Program*, Ph.D dissertation, Harvard University.

Perlmutter, D.M. (1970) "On the Article in English," in M. Bierwisch and K.E. Heidolph (eds.) *Progress in Linguistics*, Mouton, The Hague, 233-248.

Pesetsky, D. (1995) *Zero Syntax. Experiencers and Cascades*, The MIT Press, Cambridge, Mass.

Poletto, C. (2000) *The higher functional field in the Northern Italian dialects*, Oxford University Press, New York.

Pollock, J.-Y. (1983) "Sur quelques propriétés des phrases copulatives en français," *Langue Française*, 58, 89-125.

Pollock, J.-Y. (1989) "Verb Movement, Universal Grammar, and the Structure of IP," *Linguistic Inquiry*, 20, 365-424.

Pollock, Jean-Yves (1994) "Checking theory and bare verbs," in G. Cinque, J. Koster, J.-Y. Pollock, L. Rizzi, and R. Zanuttini (eds.) *Paths toward Universal Grammar. Studies in honor of Richard S. Kayne*, Georgetown University Press, Washington, D.C., 293-310.

Pollock, J.-Y. (1998) "On the Syntax of Subnominal Clitics: Cliticization and Ellipsis," *Syntax*, 1, 300-330.

Postal, P.M. (1966) "On So-Called 'Pronouns' in English," in F.P. Dineen, edl, *Report of the Seventeenth Annual Roundtable Meeting on Linguistics and Language Studies*, Georgetown University Press, Washington, D.C., 177-206 (reprinted in Reibel, D.A. and S.A. Schane, eds., *Modern Studies in English* (1969), Prentice-Hall, Englewood Cliffs, New Jersey).

Postal, P.M. (1970) "On the Surface Verb 'Remind'," *Linguistic Inquiry*, 1, 37-120.

Rizzi, L. (1982) *Issues in Italian syntax*, Foris, Dordrecht.

Rizzi, L. (1988) "Il sintagma preposizionale," in L. Renzi (ed.) *Grande grammatica italiana di consultazione. Volume I. La frase. I sintagmi nominale e preposizionale*, Il Mulino, Bologna, 507-531.

Rizzi, L. (1990) *Relativized Minimality*, The MIT Press, Cambridge, Mass.

Rizzi, L. (2000) *Comparative Syntax and Language Acquisition*, Routledge, London.

Ronat, M. (1972) "A propos du verbe 'Remind' selon P.M. Postal. La sémantique générative: une réminiscence du structuralisme?," *Studi Italiani di Linguistica Teorica ed Applicata*, 1, 233-267.

Rouveret, A. and J.R. Vergnaud (1980) "Specifying Reference to the Subject: French Causatives and Conditions on Representations," *Linguistic Inquiry*, 11, 97-202.

Ruwet, N. (1972) *Théorie syntaxique et syntaxe du français*, Editions du Seuil, Paris.

Sportiche, D. (1995a) "French Predicate Clitics and Clause Structure," in A. Cardinaletti and M.T. Guasti (eds.) *Small Clauses*, Academic Press, Florida (reprinted in Sportiche (1998)).

Sportiche, D. (1995b) "Clitic Constructions," in L. Zaring and J. Rooryck (eds.) *Phrase Structure and the Lexicon*, Kluwer, Dordrecht (reprinted in Sportiche (1998)).

Sportiche, D. (1998) *Partitions and Atoms of Clause Structure. Subjects, agreement, case and clitics*, Routledge, London.

Sportiche, Dominique (2002) "Movement Types and Triggers," *GLOW Newsletter*, 48, 116-117.

Vergnaud, J.-R. (1985) *Dépendances et niveaux de représentation en syntaxe*, John Benjamins, Amsterdam.

Webelhuth, G. (1992) *Principles and Parameters of Syntactic Saturation*, Oxford University Press, New York.

Weinberg, S. (1992) *Dreams of a Final Theory*, Vintage Books, New York.

1   Cf. Chomsky (1995, 6) and references cited there; also Webelhuth (1992).

2   Whether Chomsky's (2001, 35) proposed parameter for OS would fit into a restrictive theory of parameters is not clear.

3   It may be that 'pro-drop' in the third person is quite different from pro-drop in the first or second person even in Romance - see Poletto (2000) and Kayne (2001).

4   Cf. Baker's (1996, 35n) point about the difficulty of deciding how to (numerically) count the effects of a given parameter.

5   Though not in all respects. For further details, see Kayne (1976) and Cinque (1982).

6   In the sense of 'beautiful' or 'inevitable' as discussed by Weinberg (1992, chap. VI).

7   Cf. Chomsky's (1981, 6) use of 'may' in his "...change in a single parameter may have complex effects...".

8   The term may have been used first by Hellan and Christensen (1986, 1).

9   It may be possible to go further than this - v. Guardiano and Longobardi (2003) and Longobardi (2003).

10   Cf. the fact that some Romance has *do*-support of a sort close to that of English - Benincà and Poletto (1998).

11   For arguments against the head-initial/head-final parameter, see Kayne (1994; 2003).
    For recent argument against 'non-configurationality', see Legate (2002).

12   Baker (1996, 20, 282) states that full-fledged referential Noun Incorporation implies that the language in question also has obligatory subject and object agreement (with the exception of inanimate objects, recalling the fact that animacy is a large factor in the appearance of *a* preceding direct objects in Spanish). This is reminiscent of Cinque's (1990) discussion of Italian CLLD, and may suggest that Noun Incorporation involves (phrasal) movement to a specifier position in the sentential projection.

13   Cf. Kayne (1996) and Benincà (1994, 7). Controlled experiments of a different sort can be done in (the syntactic part of) comparative acquisition work; comparative neurolinguistics (of syntax) may be expected to become relevant in the future.

14   Kuroda's (1988) interesting proposal about English vs. Japanese runs into difficulty when one takes into account, for example, Dravidian languages that have subject-verb agreement. The probability that intra-Romance work will have to pay central attention to Dravidian is lower; even more so for comparative work based on a set of Italian dialects.

15   Baker (1996, 7) notes that micro-comparative work can lead to the 'fragmentation' of parameters. This seems rather similar in a general way to what happens in the natural sciences, as microscopes of different types comes into being. We can expect that clusterings of properties/correlations will continue to be found, though the properties themselves will be much finer-grained than in the past.

16   As in the case of *enough* mentioned earlier, perhaps.

17   It might be possible to alternatively relate the control difference within Romance to another well-known difference within Romance concerning post-verbal subjects (in turn arguably related to verb movement). (On the limited way in which French reaches sentences with post-verbal subjects, see Kayne and Pollock (2001).) On other Romance languages, see Kayne (1991, 657).) This might in turn depend on having control involve movement, not so much in the manner of O'Neil (1995; 1997) or of Hornstein (1999; 2001) (recently criticized by Landau (2003)) as in the manner of Kayne (2002a), where movement is paired with a doubling structure (the controller would be the

double of PRO). (The proposals concerning control in Chomsky and Lasnik (1993) do not by themselves account for the Romance correlation in question.)

[18]   Cf. Julien (2002), Koopman and Szabolcsi (2000) and note 102.

[19]   For additional discussion, see Kayne (1996).

[20]   Note that *a red color car*, with overt *color*, is fairly acceptable, and that *What color car did they buy?* is fully so.

   Cf. Lanham's (1971, 310) proposal that the *mu* of *Ngimude* ('I *mu* tall') appears because one really has the intermediate 'Mina muntu ngili mude' ('1sg. absolute pronoun + person + *ngi* + ultimately unpronounced copula *li* + *mu* + *de*') and *mu* is agreeing with *muntu*. He also notes that postulating *mina-muntu* as an abstract subject is supported by the fact that it is a possible NP in Zulu - cf. Postal (1966) vs. Delorme and Dougherty (1972).

[21]   Cf. Kayne (to appear - a). An early suggestion for a decompositional approach (to causatives) can be found in Chomsky (1965, 189). Note that the kind of counterargument given by Fodor (1970) and Ruwet (1972, chap. 4) was weakened by the subsequent development of the notion of 'small clause', which allows one to say that *cause to die* and *kill* differ in that the latter lacks, for example, an embedded tense of the sort that the former has.

[22]   It seems very plausible that both *few* and *number* in the text examples fall on the functional element side of the functional element vs. lexical element distinction. *Color* may well, too, more likely than *red*.

[23]   Cf. also Chomsky's (2001, 2) uniformity principle. On Case, see Rouveret and Vergnaud (1980) and Vergnaud (1985).

[24]   Jean-Yves Pollock reminds me *douzaine* can also sometimes be exactly twelve.

[25]   Cf. Carstens's (1993) proposal for an unpronounced zero-affix in the case of diminutives and augmentatives in Bantu; for much relevant discussion, see Pesetsky (1995).

[26]   Similarly for *thousands* vs. *thousand*, *millions* vs. *million*, etc. Note in particular *zillions of articles* vs. *a zillion articles*, implying that *zillion* in the latter is adjectival (i.e. without any nominal -AINE suffix), in which case the imprecision of *zillion* should be attributed to its *z-* prefix (cf. the *ump-* of *umpteen*).

   In French, *cent* ('hundred') and *mille* ('thousand') are adjectival in that they do not take *de* ('of'), but *million* is nominal, perhaps because it is *mill-+-ion*, with *-ion* nominal (whereas English *million* is *m-+-illion*, with *-illion* adjectival).

   The presence of *a* in *a hundred articles* is licensed by the unpronounced singular noun NUMBER - 'a hundred NUMBER articles' - cf. Kayne (to appear - a).

   Italian *cento* ('hundred') is adjectival in that it does not take *di* ('of'), yet shows no number agreement (unlike the general case for Italian adjectives), probably like *meno* ('less') and *abbastanza* ('enough').

[27]   It seems unlikely that *dozen* is to be analyzed as *doz-+-en*, with *-en* comparable to French *-aine*. Like French *douzaine* (v. note 24), *dozen* can be either exact, as in (i), or inexact, as in (ii):
  (i) He's spent a dozen years on that paper.
  (ii) There are dozens of typos in your paper.
Yet while plural *dozens* is quite parallel to plural *douzaines*, singular *dozen* differs from singular *douzaine* in not by itself being able to express approximation and in not taking *of*, suggesting that *dozen* does not contain an *-en* parallel to *-aine* but is rather a variant of *twelve* that has the syntax of *hundred* (including the ability to take -AINE) except for:
  (iii) three hundred/*dozen and two days
  (iv) two thousand three hundred/*dozen days

[28]   Note that *a good hundred articles* does not have that interpretation, either, and that the possible presence of *good* does not imply that *hundred* is a noun (vs. Jackendoff (1977, 128)), any more than it does for *many* in *a good many articles*. Rather, both *hundred* and *many* are adjectival, modifying unpronounced NUMBER - see Kayne (to

appear - a) on *many* and *few*; also note 26. On the other hand, there are differences between adjectival numerals and ordinary adjectives that remain to be understood, e.g. with respect to agreement.

    Moderately acceptable is *She's written twenty-ish (*of) articles this year*. The impossibility of *of* suggests that -*ish* cannot be nominal (as opposed to adjectival).

[29]   The restriction against numerals seen in (64) and that against the indefinite article may have something in common, but they diverge in:
  (i) They have tons/a ton/*seven tons of money.
The idiomatic 'very large quantity' reading is lost with the numeral; similarly for *lots/a lot/*seven lots* and for *large amounts/a large amount/*seven large amounts*.

[30]   Jean-Yves Pollock (p.c.) suggests that the licensing of -AINE by plural might be linked to the licensing by plural of the indefinite determiner - for relevant discussion, see Delfitto and Schroten (1991), Longobardi (1994) and Déprez (to appear).

    Guglielmo Cinque (p.c.) points out that -*aine* and -AINE may well correspond to a functional head in the (sentential) syntax (cf. note 102), given in particular the so-called "approximative inversion" (NP-movement) that seems to be induced by their (unpronounced) counterpart in Russian and Ukrainian, as discussed by Franks (1995, 165ff.).

    Note the contrast:
  (i) John has hundreds/*fifties of friends.
  (ii) John has tens/hundreds/*fifties of thousands of dollars.
as opposed to:
  (iii) John is in his fifties.
  (iv) John was born in the fifties.
Why *fifty* (and other non-powers of ten) is incompatible with -AINE in (i)/(ii), yet compatible with YEAR(S) in (iii)/(iv) (see Kayne (to appear - b)) remains to be understood, as does the analysis of:
  (v) ?Your articles must number in the fifties.
perhaps with an unpronounced pronominal:
  (vi) ...in the fifty N -s
which would recall French (cf. Gross (1977)):
  (vii) Vous avez publié dans les cinquante articles. ('you have published in the 50 articles' = '...about 50...')

[31]   The fact that German -*t* for third singular occurs in the present but not the past recalls English -*s*, but cannot be attributed to German disallowing two inflectional suffixes, contrary to (the spirit of) Bobaljik and Thráinsson (1998, 59).

[32]   Though that might not extend to Hebrew or Finnish, which resemble Paduan; for some relevant discussion, v. Kayne (2001).

[33]   Cf. the possibility that irregular morphology is associated only with phonological features, as in Kayne (to appear - b, (116)).

[34]   For one recent approach, see Kishimoto (2000).
    The text discussion will need to be extended to cover *something else, everything else*.

[35]   On these effects, see Azoulay-Vicente (1985).

[36]   If the suggestion in notes 26 and 28, to the effect that *three hundred(*s) books* is impossible with -*s* because *hundred* is adjectival, is correct, then either *thing* in *something(*s) heavy* is adjectival (which seems odd), or these two cases of plural -*s* being impossible are to be kept apart. The latter solution may receive support from **three/a thing heavy/heavys*.
    French does allow:
  (i) quelques-uns de célèbres ('some-ones of famous')
but (i) is not the plural of (71) (and is not limited to animate the way (71) is). Rather it corresponds to English *some famous ones*, with an understood antecedent.

[37] The paradigm is *tout* (m.sg.)*, toute* (f.sg.)*, tous* (m.pl.)*, toutes* (f.pl.).

[38] On *every* as indefinite, see Beghelli and Stowell (1997).

[39] In which case, the limited *all else* needs to be looked into.
  An alternative approach, at least for (86), might involve a link with:
  (i) tout *(ce) que tu vois ('all that that you see')
although there would be a problem with:
  (ii) *tout ce de cher

[40] French does have *jamais* corresponding to English temporal *ever/never*; all three of these arguably cooccur with an unpronounced TIME.

[41] French also lacks any visible counterpart of the *ever* of:
  (i) We'll go wherever you go
though here there would be no *que*, for reasons that need looking into.

[42] See Chomsky (1981) on the Empty Category Principle.

[43] (100) is better for me with *he* in place of *John* - v. Kayne (1994, 156).
  Interestingly, French and English also differ in the non-extraposed wh-cases. Although *Who else did you invite?* and *Qui d'autre as-tu invité?* are both fine, *??Who famous did you invite?* is less good than *Qui de célèbre as-tu invité?*. The deviance of the former might be relatable to that of (97) if *who famous* can never be a derivation-final constituent - v. Kayne (2000, chap. 15, (18); to appear - c, Appendix).
  For an analysis of 'extraposition' that involves no rightward movement, but rather leftward movement keyed to the complementizer, see Kayne (2000, chap. 15, sect. 3) and Cinque (2003).

[44] In addition, there are cases of English *of* that cannot be transposed to French, e.g. *all of the books, all three of the books, the three of us*. Here, there may be a link to the fact that English is unusual, too, in having a complementizer *for* responsible for objective Case on a following subject (v. Kayne (1981a)).

[45] The appearance of *-uns* ('ones') here is atypical of French - for relevant discussion, see Pollock (1998).

[46] Thinking of the (interpretive) similarity within English between *We'll buy any book you recommend* and *We'll buy whichever book you recommend*, and the earlier postulation of unpronounced EVER (for French). (Note also that Italian *qualche* takes a singular noun.)
  Whether French has any exact counterpart of *some* is an open and important question; for relevant discussion, see Jayaseelan (2000).

[47] Cf. Kester (1996) on English vs. other languages with respect to *John bought a big *(one)*.
  Overt vs. covert is too simple (as it is in the area of pro-drop), since Italian *abbastanza* ('enough') does not agree, yet occurs without *di*, as opposed to English *enough* and French *assez*. (Of importance, too, is the fact that Catalan sometimes has agreement cooccurring with a preposition - v. Martí Girbau (2001).)
  On the relevance of paradigmatic considerations, see Pollock (1994).

[48] In my (colloquial) English, *many* is a polarity item, too, though to a lesser degree:
  (i) ?They have many students this year.

[49] In some respects, *beaucoup* is more like *a great deal*, e.g.:
  (i) You haven't spent a great/good deal of time in London.
In the sense of *not very much*, (i) seems appreciably more possible with *great* than with *good*. (With *good*, (i) seems possible only as a denial.) *Beaucoup* is natural in the scope of ordinary negation.
  For my purposes here, the important point is that *beau* in *beaucoup* is an adjective. How exactly it matches up

with *good, great* and *beautiful* (to which *beau* often corresponds) is an important question that I will not pursue.

⁵⁰   Here *a great deal* diverges from *beaucoup*, in that *a very great deal of time* is fairly acceptable.

⁵¹   Alternatively, the required unpronounced modifier of *tant* might be THAT, thinking of English *that much sugar*, which has no overt counterpart in French.
    Extended to Italian *tanto zucchero*, the hypothesis that *tant/tanto* corresponds to *many/much* raises the question of the status of Italian *molto zucchero*, readily translated as *much sugar*. Alternatively, *molto* is an Italian counterpart of *very*:
  (i) molto MUCH zucchero
This might help with an understanding of **moltissimo intelligente* vs. *?pochissimo intelligente*.

⁵²   I take this to mean that this *so* (like French *le* - on which, see Sportiche (1995a)) is not an adjective (see Corver (1997, 160) (vs. his p.128)), as also suggested by:
  (i) ...enough so to...
  (ii) ...*so enough to...
and by:
  (iii) a big enough room
  (iv) *a so enough/enough so room

⁵³   The doubling of the *s* is orthographic; no third morpheme is involved.

⁵⁴   Note note 51.

⁵⁵   See Julien (2002) for systematic doubts about the syntactic importance of the notion 'word'.

⁵⁶   In which case the exclamative sense of:
  (i) He's eaten so much sugar!
must be attributed to a distinct (unpronounced) element or elements.

⁵⁷   Also *énormément de sucre* vs. **enormously (of) sugar*. For additional details, v. Kayne (2002b).

⁵⁸   The link between the licensing of an unpronounced element and movement recalls Rizzi's (2000, 316) discussion of null topics in German, which suggests that the movement of MUCH may be forced by UG.

⁵⁹   Ideally, because universally movement is never optional - cf. Chomsky's (1995, 256) 'Last Resort'.

⁶⁰   Some cases of sharp judgments in 'morphology', such as:
  (i) John saw/*seed Paul.
might actually fall under (179), at least in part.

⁶¹   There may be a parametric difference here between French and Italian - see note 51.

⁶²   In some cases, French can use something like *to what extent*. I leave aside the more complex question of exclamative *combien*, as well as the related question of what happens when *combien* or *tant* is separated from the adjective.

⁶³   Cf. den Besten (1978) and Larson (1987).

⁶⁴   Cf. Benincà and Poletto (this volume).

⁶⁵   For a parametric proposal about preposition stranding, see Kayne (1981a).

⁶⁶   There may be a link here to the absence in French of a direct counterpart to the non-standard relative *how* of:

(i) the way how they solved the problem
(ii) *la façon comment....

67   This *-and* does not participate in a pairing with any non-wh element in the manner of *when/then*. (French does not have a good counterpart to the *then* of *We saw her just then*.)
    According to Houngues (1997, 130), Mina (Gengbè) lacks simple wh-words entirely (apart from a counterpart of *which*).

68   See Kayne (to appear - b).
    There is a partial similarity here to Carstens's (1997) proposal concerning unpronounced locative nouns in Bantu.
    Unpronounced pronominals have long been thought of as licensed by the presence of other 'morphology' - cf., for example, Rizzi (1982) on null subjects; also Kester (1996), Lobeck (1995) and Delfitto and Schroten (1991).

69   For relevant discussion, see Déprez (to appear).

70   For a comparative analysis, see Pollock (1983).

71   Some adjectives are fully compatible with *numbers*:
  (i) Large numbers of linguists have been coming to the talks.
  (ii) *Large deals of sugar have been eaten.

72   *Un* is possible, however, in (221).

73   A more thorough analysis of *little sugar* would have *little* directly modifying an unpronounced AMOUNT. See Kayne (to appear - a).

74   As noted by Jespersen (1970, 106).

75   Why English and French contrast with respect to:
  (i) Mary is so very intelligent!
  (ii) *Marie est si très intelligente!
remains to be understood.

76   Whether *très* is part of that NP is not entirely clear. Relevant is *Jean a trop (*de) faim* ('J has too of hunger').

77   The parallel between *très peu de sucre* and *...très professeur* suggests taking *très peu*, when followed by *de*, to originate within a relative clause-like structure with a copula, thinking of the relation between *(very) few books* and *books that are (very) few (in number)*.
    The impossibility of *de* in:
  (i) Jean a très peu (*de) faim. ('J has very *peu* of hunger')
would then be linked to:
  (ii) Jean a faim (*qui est étonnante). ('J has hunger that is astonishing')
  (iii) Jean est professeur (*qui est célèbre). ('J is professor who is famous')
with the generalization being that relative clauses (and APs that originate as reduced relatives; and possessives like *de Marie*) require a DP (cf. Kayne (1994, 87)) and cannot combine with a bare NP.
    On (i) without *de*, see note 76.

78   This correspondence holds strongly in the singular, but English plural *bits*, as in:
  (i) ?John has bits of money in various bank accounts.
has no French counterpart with *peu*.
    Note also that *peu*, when not embedded within DP, is compatible with a plural N/NP:
  (ii) Jean a peu d'amis. ('J has *peu* of friends')

though here there is no direct comparison available with English, given (262).

[79]   Cf. Pollock (1983). With titles, English does allow *John is Professor of History at...*.

[80]   If (179) is correct, then either the unpronounced adjective here is not exactly the equivalent of *little*, or else the structure of (265)/(266) is not identical to that of (256) (which in any event shows that LITTLE could not be modified by *very*).
     The special relation between *little* and *bit* is also suggested by:
  (i) a little/?small/*large bit of sugar
  (ii) a small/large/?little amount of sugar
This contrast is sharper in:
  (iii) John is a little/*small/*large bit tired.
Note also:
  (iv) *John is a small/large amount tired.
    Why there is a contrast:
  (v) John has quite a (little) bit of money.
  (vi) *John is quite a (little) bit tired.
needs to be looked into. Cf.:
  (vii) John is (*quite) a little unhappy.
suggesting that (viii) is really (ix):
  (viii) John is a little unhappy.
  (ix) ...a little BIT unhapppy

[81]   When French leaves out the determiner, an ordinary adjective becomes impossible, as in (253). Note that Italian would render (252) as:
  (i) un pochino di zucchero ('a bit--*ino* of sugar')
where *-ino* is a suffix arguably equivalent to *little*, and presumably requiring movement across it.

[82]   Alternatively, as Guglielmo Cinque (p.c.) suggests, it might be that (281) contains an unpronounced ALMOST and (280) an unpronounced verb MISS comparable to *faillir* - cf. Cinque (2001, 111).
    In the same spirit, (277) might contain an unpronounced ENOUGH, thinking of the near-possible:
  (i) ?That won't suffice enough.

[83]   Relevant here is Ronat's (1972) criticism of Postal (1970). See also note 21.

[84]   Cf. Greenberg (1966) and later work, e.g. Dryer (1992).

[85]   Work on large numbers of languages is of course not specific to the typological tradition - v., e.g., Cinque (1999) and Julien (2002).

[86]   Cf. Dryer (1988) on adjectives.

[87]   Cf. Dryer (1992). Specifying 'normal order' is necessary since, as Bayer (2001, 32) points out, postverbal C-final clauses are possible in Marathi, Telugu and Malayalam. See also the discussion of (290) below.

[88]   For details, see Kayne (2000, chap. 15; 2003) and Cinque (2003).

[89]   The government-based approach of Kayne (1981a) needs to be rejuvenated, but is probably closer to the truth.
    On the causative subtype of ECM, leading to the question why some languages, but not others, need to dativize the embedded subject, see Rouveret and Vergnaud (1980), Kayne (1981b; to appear c).
    The *want*-subtype of ECM found in English is almost certainly dependent on English having a *for*-complementizer that can fail to be pronounced - v. Kayne (1981b) and note 44 above.

[90]   On Haitian, cf. Dejean (1993).

[91]   More exactly, what is parallel to C is a D merged high, not a low one - for details, see Kayne (to appear - d).

[92]   I am indebted for these data to Michel Degraff.

[93]   And the same for English Q-floating/stranding and its absence (Michel DeGraff, p.c.) in Haitian.

[94]   For example, RNR allows preposition-stranding more readily than heavy-NP-shift.
      Michel DeGraff tells me that (non-Gallicized) Haitian also disallows sentences like:
  (i) John knows and appreciates classical music.
(see also Dejean (1993 (102b)), supporting the proposal in Kayne (1994, 61) that such apparent verb-coordination is really RNR.

[95]   See Dryer (1992, 83).

[96]   Cf. in part McCloskey (1984).

[97]   Absent in (292), that is. Whether prepositions can have unpronounced doubles in more complex constructions such as quantifier stranding and right- and left-dislocation is a related but separate question. I also leave aside here the question of visible doubles of prepositions, as found to some extent in Italian (v. Rizzi (1988, 514)) and more marginally in French - v. Kayne (1975, 154n).

[98]   As seems plausible - cf. Sportiche (1995b).

[99]   Possibly, every functional head has an EPP feature, or better, there is no such feature, but rather a general need for functional heads to have filled Specs - cf. Kayne (2000, 322).

[100]   Contrary to Kayne (1994). Having P (and similarly for K, C and (as in Sportiche (2002)) D) introduced outside VP makes it unnecessary (and impossible) for DP-P order to be produced by complement-to-specifier movement.

[101]   Alternatively, thinking in part of Nunes (2001), it might be that H-XP and XP-H are contradictory orders.

[102]   On the lack of segregation between morpheme order within 'words' and order at the phrasal level, see Kayne (1994, 40) (and (10)). A still stronger position (which I think is likely to be correct) is taken by Julien (2002) and by Koopman and Szabolcsi (2000).