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SYMMETRY IN STRUCTURE BUILDING

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Abstract. This paper defends three interconnected claims: (a) selection is the only licensing procedure available to UG, specifically, checking is an instance of selection; (b) selection obtains in the mutual c-command configuration; and (c) though a head does not mutually c-command its own specifier, it mutually c-commands the specifier of its complement. A head may therefore license the specifier of its complement (as well as its complement) but not its own specifier (it is not local enough). This effectively eliminates the spec-head configuration from the repertoire of syntactic configurations, in favor of a unified notion of locality strictly identifiable with mutual c-command, a symmetric configuration. The discussion shows that a theory that collapses these distinctions remains empirically discriminating. The resulting theory is therefore genuinely reductionist.

1. Introduction

This paper proposes that there is no fundamental difference between feature checking and selection and, therefore, that a theory that assigns distinct roles or configurations to the (putatively) two kinds of relations is not parsimonious. The goal of this paper is to demonstrate that no empirical considerations indicate that checking is anything other than a particular instance of selection, whose structural correlate is the mutual c-command relation, a symmetric configuration. Given that syntactic structure is projected from the combinatoric (i.e., selectional) properties of the heads that comprise the lexical array, selectors are heads. This proposal has consequences for the role of the spec-head configuration in selection/checking, because mutual c-command does not obtain between a head and its specifier. Selection/checking is analyzed as a relation between a head and multiple complements.

2. Framing the Issue

A lexical item selects a specified category[1] in a specified syntactic configuration defined with respect to the selecting lexical item, such as complement-of

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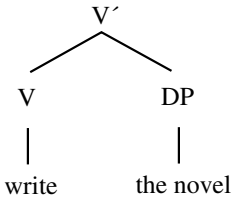
[1] In this discussion I use *selection* to refer to categorial selection, or subcategorization. Categorial selection is the relationship between a selecting head and the syntactic category that its dependent must have. For example, *think* selects a CP complement (cf. *I think it's a good idea* vs. **I think an idea*). Grimshaw (1979) shows that predicates may select certain semantic properties beyond what their subcategorization frames specify. For example, exclamatives seem to have the same syntactic structure as interrogatives but do not distribute identically:

or specifier-of.[2] Let selection be a three-place relation (notated *Select*) between a lexical item (the selecting head, a member of the set LEX), a category (a member of the set CAT) and a syntactic position with respect to the lexical item (either complement-of or specifier-of).

(1) *Select* = LEX × CAT × {comp-of, spec-of}

Then the selection relation includes, for example, the triple <*write*, DP, complement-of>, and some reference to this triple is part of the lexical entry for the word *write* (where it is associated with assignment of the internal θ-role), which in turn guides a derivation containing the verb *write* to the form below, where the selector projects.

(2)



(i) a. It's amazing what a good idea Jones proposed.
b. *It's amazing whether Jones proposed a good idea.

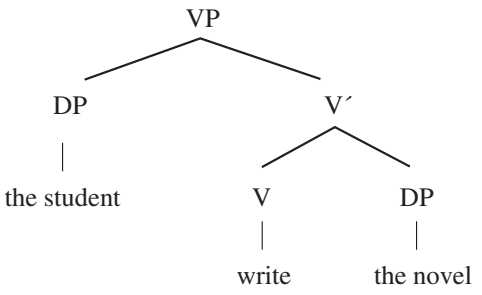
(ii) a. *I wonder what a good idea Jones proposed.
b. I wonder whether Jones proposed a good idea.

Both *be amazing* and *wonder* select a CP complement, but *be amazing* selects an exclamative CP (one with property *E*) and *wonder* selects an interrogative CP (one with property *Q*). Grimshaw then suggests in Grimshaw 1981, along with Pesetsky (1983), that semantic properties like *E* and *Q* determine the syntactic category of the relevant constituent (as their canonical structural realization) and, therefore, that subcategorization is superfluous beyond selection of the relevant semantic property. Because selectable properties like *E* and *Q* ultimately determine the syntactic distribution of the constituent bearing the property (by virtue of constituting a context for its selector), such properties define distributional classes and resemble syntactic categories in this respect, though as (i) and (ii) show, they define more refined classes than classifications like "CP." But the data I discuss here are not on the order of complexity of (i) and (ii), so I take there to be no harm for the present purposes in speaking of selection as if the term referred to categorial selection, and I do so to sidestep the problem of ascertaining in each example what semantic property we are looking at the canonical structural realization of—an issue unrelated to the themes addressed in this paper. There is no intention to dispute Grimshaw and Pesetsky in this practice.

[2] The reader may object that the specification of the configuration complement-of or specifier-of is unnecessary, because it should fall out from the order of combination, the first-selected element being closest to the selecting head. The second-selected element then cannot combine with the selecting head directly, so it combines with the complex consisting of the head and its first argument. But this possibility does not follow from any general principle, and it is not clear why the head may select an element lacking mutual c-command at all, hence the necessity that the configuration be stipulated as part of the selection relation. However, the analysis I present in section 4, which eliminates the spec-head relation altogether, also eliminates this redundancy.

Write also selects a subject in the specifier-of configuration. So, the selection relation *Select* also contains the triple <*write*, DP, specifier-of>, guiding the derivation further to the form:

(3)



The selection relation contains two triples, each of which contains the lexical item *write*. Each time one of these triples is structurally "instantiated," the selector projects (Chomsky 1995).

The checking relation has a superficially similar format. A functional head checks a feature of another category in a particular syntactic configuration defined with respect to the checking functional head. Let "checking" then be a three-place relation (notated *Check*) between a lexical item (the checking head, a member of the set LEX), a feature (a member of the set FEATURE) and a syntactic position with respect to the lexical item (again, either complement-of or specifier-of).

(4) *Check* = LEX × FEATURE × {comp-of, spec-of}

The lexicon, LEX, contains all the lexical items of the language, both lexical and functional. We might have singled out for the checking relation that subset of LEX that contains only the functional heads and, for the selection relation, that subset that contains only lexical heads. Checking is usually thought of as the business of functional elements, where a functional element is one with no lexical content (whose primary business is to check the features of other categories). Selection is thought of as the business of elements that denote the relations that the various participants in the predication take part in.[3] The present study concerns how these classes of lexical items behave—that is, what similarities or differences there are in what elements they check or select and in what configurations. If the only thing that distinguishes a checking

[3] The distinction between lexical and functional is ill defined at the outset, given that what constitutes enough semantic contentfulness to qualify a word as a lexical word is a difficult empirical judgment call to make. Is what past tense denotes (functional) less contentful than what the predicate *temporally precedes* denotes (lexical)?

category from a selector is some measure of its semantic contentfulness, but checking and selection are otherwise the same operation, then checking and selection are not two kinds of dependencies, and the contentfulness of the lexical item is not a factor that warrants distinguishing them. This is the claim I make in what follows.

The "behavior" of a lexical item is evidenced in how it affects its environment—that is, what kind of thing it checks or selects and in what configuration. As defined, the checking relation relates lexical items to features, whereas selection relates lexical items to categories. The set of possible checking configurations as previously defined is the same as the possible selection configurations, though it is not obvious, as the reader may have already objected, that feature checking ever obtains between a head and its complement. I have defined checking so as to leave the option open for now and will pursue this matter further.

Note for now that the set of possible selection/checking configurations is suspiciously small. This is because the content of the set {comp-of, spec-of} is restricted by an independent principle of grammar—roughly that selection/checking is local, meaning restricted to the nearest positions to the head. The only reason the definitions of *Select* and *Check* need any specification of the configuration at all is that there is more than one local configuration; a given head must know the difference between its complement and its specifier. But whereas the locality principle defines the set of possibilities, it does not play a role in guiding the construction of a tree. Tree construction is guided by the individual lexical requirements of the heads involved and their lexical association with a certain syntactic configuration. Nowhere in the triple <*write*, DP, complement-of>, for example, is the necessity that *write* and *DP* be local expressed, although the requirement that they stand in the head-complement configuration is expressed. There is, then, a subtle redundancy between the principle that selection is local and the stipulation that a verb combine with its object in the complement-of configuration (as opposed to the specifier-of configuration). On the other hand, the general principle of locality would seem to be insufficient as a direct structure-building principle, given that there is more than one kind of local configuration. It matters whether the relata of, for example, a θ-role assigner, stand in the head-complement configuration or the spec-head configuration to the assigner, given that a head assigns different θ-roles to its specifier and its complement. Leaving syntactic combinatorics entirely up to locality would seem to result in a loss of discernment. But I show in section 4 that this is not necessarily so—that this redundancy can be eliminated with no loss of discernment.

In what follows, I argue that features are categories and that whatever extent features can be thought of as different from syntactic categories does not warrant treating the dependency between a head and what one might think of as a feature differently from that between a head and a category. I also argue that the only configuration relevant for selection (now meant to include

checking) is the mutual c-command, or complement-of, configuration. I claim that both checking and selection reduce to the two-place relation that I refer to as *selection*:

(5) *Select* = LEX × CAT

That is, selection (and checking) is a relation between a lexical item and a category. It is an autonomous principle of grammar that such relations are instantiated structurally in the most local syntactic configuration possible, and the most local syntactic configuration possible is mutual c-command. This proposal appropriately separates the selection/checking relation, which is a characteristic of lexical items, from the specification of the syntactic configuration in which such relations are instantiated, which follows from a principle of grammar.

I assume in what follows the basic phrase structure proposed by Chomsky (1995) for simple transitive predications:

(6) [CP [TP [*v*P [VP]]]]

2.1 Similarities between Selection and Checking

Assume that checking and selection are distinct syntactic operations. They nonetheless display certain similarities.

First, both dependencies require two elements to occur syntactically locally (both complement-of and specifier-of are local in the sense of within the same minimal maximal projection as the head).

Second, in both cases the relation is asymmetric. The effect of a selection or checking dependency is induced by one element and affects the syntactic distribution of the other. A selector introduces new elements (typically its arguments) within its maximal projection. A checking category attracts elements (bearing the relevant features) into its maximal projection. In both cases one element affects the distribution of another, but the selected or checked elements do not influence the syntactic position of the selector or checking category. The position of the selector or checking category is fixed independently (usually by virtue of it being selected by some other category), whereas the position of the selected or checked elements is fixed relative to the selector or checking category.

2.2 Differences between Selection and Checking

These two general similarities between selection and checking seem to be subsidiary to a number of specific differences, enumerated here.

First, selection relates a lexical item and a category, whereas checking relates a lexical item and a feature of another category.

Second, checking typically induces movement, whereas selection apparently never does.

Third, in the case of selection, the introduction of one element into a derivation (the selector) in turn requires the introduction of others (the elements the selector selects), whereas in the case of checking, the introduction of a checking category does not in turn require the introduction of any new elements. On the contrary, the introduction of the checking category is meant ultimately to satisfy requirements of the thing to be checked, which enters the derivation independently of the checking category. One may say that the elements introduced by a selector are there because the selector is, but the elements checked by a checking category are not there because the checking category is, but because they were introduced separately by some selector.

Fourth, categorial selectional requirements often correspond to semantic selectional requirements; checking requirements do not. When a head selects another category, the latter category is typically an argument of the former and receives a θ-role from it. But when a checking category checks a formal feature of another category, the relation does not typically correspond to the predicate-argument relation (compare a verb selecting its theme with tense checking a Case feature).

3. Differences between Selection and Checking Are Only Apparent

In the following sections, I treat each of these differences and show that it is an epiphenomenon of independent considerations and does not derive from an axiomatic difference between selection and checking and, therefore, that no empirical considerations warrant any theoretical distinction between selection and checking.

3.1 Selection Relates Categories; Checking Relates Features

In this section, I claim that features and categories are not distinct syntactic entities. Tests for category membership are distributional. The distribution of a constituent is the set of environments, or syntactic frames, the constituent may occur in. The category of a constituent is a label of its syntactic distribution. In (7), for example, *Sue* and *Sandra* can replace each other, and similarly in other syntactic frames, so they belong to the same category.

(7) Sue admires Sandra.

Let this category be called "DP," and assume, again by the distributional criterion for category membership, that any constituent that can replace *Sue* or *Sandra* above is also a DP. Slightly more generally, let any constituent that can grammatically fill either the first or second blank in (8) belong to the category DP.

(8) ____ admires ____

There are some terms that can fill one of the blanks but not the other, such as *she* and *her*.

(9) a. She/*her admires Sandra.
b. Sue admires *she/her.

Their distribution overlaps with but is distinct from the distribution of the DPs (in fact, it is a subset of the distribution of the DPs, but this is not true of all features of DP; see the discussion of the *wh*-feature in section 3.3). So, let *she* and the class of terms that distribute identically have the designation "nominative," and let the term *her* and the other terms that distribute identically be designated "accusative."

The label "DP" designates a distributional class, the class of items that can fill either blank in (8). The label "nominative" also affects what blanks a constituent can fill and is therefore also a distributional class. The distributional effect of the label "nominative" makes "nominative" a syntactic category, because the distribution of a constituent is the very criterion of category membership.[4] The fact that a constituent may have a different distribution (occur in different positions) at different levels of representation (or phases of structure building), indicates that a constituent may have more than one distributional designation, each being relevant ("selected," I will claim) at a different stage in the derivation. In fact, the reason why a DP may distribute in either blank in (8) is that DP is not a relevant designation at the surface level, only Case is. The designation "DP" determines the base position of a constituent having that designation (where *she* and *her* are interchangeable, both being DPs). At the surface, a nominative element precedes the verb and an accusative element follows, though this mapping must be governed by principles ensuring that nominative is agent in the active voice and so on (such as the "equidistance" theory of Chomsky 1993, for example).

[4] Under the assumption that syntactic structure is projected from the lexicon, the claim that "nominative" is a syntactic category might be construed as entailing that there is a lexical item that projects this category. In fact, the features of a DP are typically inherited from the heads that compose it—[+wh] coming from D, for example, and [+feminine] coming from N. The notion of a syntactically independent "Case head" (K[ase]) providing a Case feature is proposed by Guerssel (1992), Sigurðsson (1993), Bittner and Hale (1996), Bosque and Picallo (1996), Mallen (1997), and others. These authors have effectively already made the claim I am making here. The same can be said for syntactic projections of individual agreement features (Ouhalla 1988, Ritter 1992, Coopmans 1994, Mallen 1997, and others). The ideas expounded here also have a precedent in categorial grammar, where, for example, Case distinctions are reflected in the category of the Case-bearing constituent, as in the treatment of Lambek 1958, which assigns to nominative pronouns the right-looking category $s/(n\backslash s)$ and to accusatives the left-looking category $(s/n)\backslash s$.

The considerations brought to bear above on the status of Case features also apply to agreement features and *wh*-features. Consider, for example, subject-verb agreement in grammatical gender.

(10) a. Til9-it sh-shams. (Levantine Arabic)
rose-FEM the-sun
'The sun rose.'
b. Tili9 l-'amar.
rose the-moon
'The moon rose.'

Sun is feminine in Levantine Arabic and triggers the feminine suffix *-it* on the verb. *Moon* is masculine and does not trigger the *-it* ending (masculine is unmarked). There does not appear to be a gross distributional difference between *sun* and *moon*. Both are subjects in (10). But a closer look at the syntactic frames that (10a,b) present reveals a difference. The syntactic frame is not the same in (10a,b). *Moon* cannot occur in the frame that *sun* occurs in nor vice versa.

(11) a. *Til9-it l-'amar.
b. *Tili9 sh-shams.

To claim that *sun* and *moon* in (10) have the same distribution is to ignore the obligatory presence of *-it* in (10a). *Sun* occurs in the environment of *-it*, and *moon* does not. Somewhat more theory specifically, the feminine agreement checking category associated with the finite verb in (10a) checks *sun* but not *moon*, meaning that *sun* and *moon* do not have the same distribution. *Sun* occurs in the environment of a feminine agreement phrase and *moon* occurs in the environment of a masculine agreement phrase.

The fact that the designation "feminine" affects the distribution of a constituent makes "feminine" a syntactic category, again by the argument that the distribution of a constituent is the criterion of category membership.

Features like [+wh] (interrogative or focus features) often induce displacement of the constituent bearing the feature, highlighting a distributional disjunction between the *wh*-feature and other designations of the constituent. Actually, the features "nominative," "accusative," "feminine," and so forth are usually also posited to trigger (A-)movement, indicating there is some generality to the displacement property of features. Designations like [+wh] do not occur in all of the same syntactic frames as designations like "DP." The fact that they trigger movement indicates that, whenever several distributional designations (like "DP" and "[+wh]") group together as designations of a single constituent, that constituent must satisfy the distributional requirements of all of its designations (i.e., categories), albeit not at the same time. Syntax is derivational and transformational, meaning that a constituent may have a

different distribution at different levels of representation, satisfying the different distributional requirements of its categories at different levels. The next two sections flesh this point out in greater detail. In summary, all of the designations I have discussed are distributional classes and have equal claim to syntactic categoryhood, meaning there is no distinction between features and categories. For clarity in the sections that follow, which discuss other differences between selection and checking, I continue to refer to the designations "[+wh]," "feminine," "nominative," and so forth as "features" and "DP," "VP," and the like as "categories."

3.2 Checking Induces Movement; Selection Does Not

It is never the case that an element raises into a selection relation with its selector,[5] though it is typically the case that a checked element raises into a checking relation with its checking category. This section argues that this difference is an epiphenomenon of the θ-Criterion.

When a selector is a lexical predicate and its selectees are its arguments, selection is a vehicle for θ-role assignment (selection differs from checking in this respect; see section 3.4). θ-role assignment is a reflex of the "argument-of" relation between a θ-role-assigning predicate and an argument. The argument-of relation is a building block of syntax. It seems, if contemporary syntactic theories are on the right track and if structures are built from the bottom up, that:

(12) Lexical relations are established prior to functional relations.

A particular concretization of this fact that is commonly assumed to drive structure building is:

(13) a. A constituent must receive a θ-role before it can be affected in any other way.[6]
b. A constituent may not receive more than one θ-role (the θ-Criterion of Freidin 1978 and Chomsky 1981[7]).

[5] Actually, Hornstein (1999) claims that θ-relations *can* be derived by movement (he claims that control is actually movement). Of course, if he is right, then selection and checking are not even superficially different as far as the role of movement goes, obviating the discussion in section 3.2. Likewise, the recent proposal by Kayne (2002) that the antecedent of a pronoun is base generated local to the pronoun and then raises to a θ-position also makes selection and checking indistinguishable in this respect.

[6] By *constituent* I mean a potentially θ-role-bearing constituent.

[7] One half of the θ-Criterion to be exact—what Freidin refers to as the Functional Uniqueness condition. The other half (Functional Relatedness) requires an NP to have a θ-role.

Given these two assumptions, it follows that selection does not induce movement because selection is a vehicle for θ-role assignment, and therefore cannot attract anything, given that whatever is there to attract already has a θ-role, because of (13a).[8]

These considerations assume—I think reasonably—that (12) is a deeper generalization than the checking/selection distinction itself—that is, that the lexical relational predication a sentence presents is prior to the various morphosyntactic licensing relationships that the components of the predication enter into.[9] Consequently, the fact that checking induces movement but selection does not is attributable to the θ-Criterion, or whatever semantic generalizations derive it; raising to a selector is blocked by the θ-Criterion, but raising to a checking category is not.

3.3 The "Depends-on" Asymmetry

The third difference between selection and checking is that, whereas a selector introduces a category to the derivation, a checking category does not (selection draws from the lexical array, and checking usually draws from the subtree already built). In this section I claim that this difference is an epiphenomenon of the fact that selection does not induce movement whereas checking may (which in turn is an epiphenomenon of the θ-Criterion, as discussed in section 3.2).

Both checking and selection are instances of a licensor licensing a dependent. I argued in section 3.1 that the dependent in both cases is a syntactic category. Checking typically induces displacement of its dependent, as in *wh*-constructions:

(14) a. Which flowers did Stan buy?
b. Stan bought the flowers by the window.

[8] Thematic relationships are a kind of interpretable relationship. Taking selection to be a vehicle for interpretable relations in general, and assuming that an analog of the θ-Criterion holds for all interpretable relationships, then the argument here extends to cases of selection between, say, T and vP, where the latter contributes the event that tense orders temporally, and between C and TP, where the latter contributes the predication that the complementizer gives illocutionary force to. I assume here that the θ-Criterion applies to all interpretable relations but not to uninterpretable relations such as Case assignment and agreement.

[9] An explanation for (12) may reside in the functional stratification of clause structure itself, usually taken to be universal, which has VP in the bottommost tier, dominated by Case-and agreement-licensing structure, dominated by complementizer-related structure: $[_{C}\ [_{Agr/Case}\ [_{VP}]]]$. DPs are related to both predicational structure and agreement- and Case-licensing structure. Because downward movement is banned, they must be generated in the former and move to the latter. This observation reduces (13a) to a new stipulation—that syntactic structures generally have the form $[_{C}\ [_{Agr/Case}\ [_{VP}]]]$, which has a good chance of having a semantic type-theoretical explanation. Complementizers introduce propositions; Case and agreement morphology manipulate linking and information structure within the proposition instantiated in VP (see Keenan 1987 on the semantic function of Case morphology).

In the declarative answer in (14b), the object follows the verb, whereas in the question in (14a), the object occurs sentence initially. *Wh*-DPs may be displaced from the canonical distribution of DPs. The distribution of *wh*-DPs therefore overlaps with, but is not a subset of, the distribution of non-*wh*-DPs.[10] The distribution of *wh*-DPs differs from the distribution of non-*wh*-DPs in a systematic way, formalized by Chomsky (1973) as a transformation that adjoins a *wh*-element to a [+wh] complementizer, shifting it into clause-initial position.

Hence, a given feature may have the affect of altering the distribution of the constituent it is a feature of, not necessarily by restricting it to a subset of the distribution the constituent would otherwise have. In the case of *wh*-DPs, the designation "DP" determines where the constituent that has this designation occurs at D-structure. The designation "[+wh]" determines where the constituent that has this designation occurs at LF. So, selection determines the form of D-structures, whereas checking determines the form of logical forms (and potentially, to some extent, surface structures).

In describing this asymmetry in section 2.2, I pointed out that, in any given structure, every element that exists is there because its selector is there (except for the highest node, which is an unselected derivational "start" symbol). But features are not there because their checking categories are there but rather because they come parceled with a selected category. But the fact that the process of checking a feature displaces it means that checking is really like selection. Though a feature is not in the structure because its checking category is there, it is *where it is* because its checking category is there. This is true of selection also. A selected category occurs in the position it occurs in (at D-structure) because that position is local to the selector. Given this parallelism, the asymmetry described previously falls out from (12), the generalization that lexical relations obtain prior to functional relations. The context for the category "DP" is generated before the context for the categories "nominative" and "[+wh]" because the context for the category "DP" is within the lexical relational base, which is generated prior to functional structure, which includes contexts for "nominative" and so on. Hence, lexical selectors introduce new elements to a derivation, because they are the first contexts generated, by virtue of (12). Checking relations in general do not introduce new material to a derivation, given that the relevant categories are already in the tree when the checking categories for them are introduced.[11] The checking category need only displace them. The locality that checking requires necessarily alters the base structure. Both selection and checking require the

[10] Furthermore, the feature [+wh] may occur in non-DPs (e.g., adverbs *when*, *how*).

[11] It is nonetheless possible for a checking category to act like a selector and introduce an element to a derivation, which is predicted in case the checked element is not in a lexical relation prior to being checked, as Rizzi (1990) claims is the case for the *wh*-word *why*. Rizzi argues that *why* is base generated in CP, the [+wh] licensing site. It does not bind an IP-internal variable. Case-bearing expletive elements are also merged directly into a checking position and do not bind a VP-internal trace, according to Chomsky (1995).

locality of the selected/checked element, in which respect selection and checking are derivationally the same procedure.

The lexical relational base is the domain of θ-role assignment. The conclusion that the θ-Criterion derives the "depends-on" asymmetry does not speak to whether θ-assignment itself distinguishes checking and selection, though I have assumed so far it does. The next section addresses this issue.

3.4 Selection Goes Hand in Hand with θ-Role Assignment; Checking Does Not

Whether a term assigns a θ-role or not is a lexical property of the term. Therefore, when an element licenses another element, whether or not the licensor assigns a θ-role to the licensee, is related to a lexical property of the licensor. If the licensor has a θ-role to assign, it assigns a θ-role to the licensee. If it has a feature to "match," it matches a feature of the licensee. In both cases, the presence of one element (the licensee) depends on the presence of another (the licensor). Because the licensor is different from case to case, we expect the particular requirements of a given licensing relationship to differ lexically with the lexical type of the licensor. We do not (necessarily) expect the syntactic configuration in which licensing obtains to differ from licensor type to licensor type. If selection and checking are the same lexical relation, it does not follow that lexical items may not differ in how their licensee is affected. How the licensee is affected is determined by the lexical requirements of the licensor.

Selection is a relation that requires an element of a certain type to occur in a syntactic position specified with respect to the selector. As discussed previously, this is no different from checking, which also requires an element of a certain type to occur in a syntactic position specified with respect to the checking category. There is a heterogeneous variety of reasons why an element may require the syntactic locality of another element. But this does not warrant treating different reasons for requiring the syntactic locality of another element syntactically differently. I have claimed that when we factor out the generalization that lexical relations obtain prior to nonlexical relations, no evidence requires us to postulate a taxonomy of syntactic configurations underlying the taxonomy of lexical relationships.

3.5 Summary

I have argued that the differences between checking and selection described in section 2.2 are only apparent and that no such differences persevere when we control for the interference of independent grammatical forces such as (12). The conclusion is that selection and checking are the same dependency. Whether in a particular instance a θ-role is assigned or a feature matched depends on the lexical requirements of the licensor in that particular instance.

If we assume checking and selection are the same kind of dependency, certain apparent differences fall out from the fact that particular licensors may differ in how they affect their dependent. For example, if some assign a θ-role and others do not, and there is an independent principle to the effect that a constituent may only bear one θ-role, then those licensors that assign θ-roles will never induce movement in doing so. Nowhere are we led to distinguishing the kind of dependency that checking is from the kind of dependency that selection is. Pending evidence that distinguishes them, I assume they are the same. That is, both checking and selection are the relation that I refer to as "selection":

(15) *Select* = LEX × CAT

Select is a relation between a licensor (member of LEX) and a syntactic category (member of CAT, which includes, e.g., "DP," "[+wh]," "nominative," "plural"). In the following section I discuss what syntactic configuration the selection relation is instantiated in.

4. Head-Phrase Dependencies and Sisterhood: Eliminating the Spec-Head Configuration

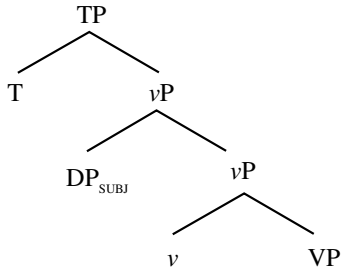
In this section I assume that the conclusion of the previous section is correct and discuss some ramifications of this conclusion for structure building. The definition of selection given in section 3.5 makes selection a relation between a lexical item and a category and does not contain a specification about what configuration this relation is instantiated in. The idea in not including the relevant configuration is that this configuration is determined by grammatical rules that are not part and parcel of the relation itself. I assume that it is a general principle of grammatical form that whenever two or more elements are related by a relation such as selection, the elements related must be syntactically local. I assume what I consider to be the minimal hypothesis that there is only one kind of syntactic locality and will show that this assumption is tenable. A local configuration is that described in (16) (after Williams 1980, which proposes a slightly weaker version for the configuration underlying the "predication" relation).

(16) Two elements are local if and only if they stand in the mutual c-command relation.

This premise runs counter to the assumption that either selection or checking may obtain in the spec-head configuration. A head is not in the mutual c-command relation with its specifier. Consider *v* licensing its subject. I assume here the X′ theory of Kayne (1994), according to which specifiers are adjuncts, and his definition of c-command, repeated in (17).

(17) a. X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y (p. 16).[12]
b. A category X excludes a category Y if no segment of X dominates Y (fn. 1, p. 133).
c. A category X dominates a category Y if every segment of X dominates Y.

(18)



v does not c-command DP (though DP c-commands *v*), because the first category that dominates *v*, *v*P, does not dominate DP (given that not every segment of *v*P dominates DP). So, *v* and DP are not in the mutual c-command relation. Thus, the DP in (18) is not local enough to *v* (by (16)) to be its argument. This issue is little discussed in the literature, though concerns about the spec-head configuration not being strictly local are periodically articulated, recently, for example, in Epstein 1999.

However, the fact that *v*P does not dominate DP means that DP c-commands out of *v*P. In particular, DP c-commands T. DP excludes T, and the first category that dominates DP also dominates T, namely TP (again, *v*P does not dominate DP because not every segment of *v*P dominates DP). T also c-commands DP. So, T and DP stand in the mutual c-command relation in (18), given the definitions in (17). T and *v*P also stand in the mutual c-command relation. In general, then, a head is in the mutual c-command relation with its sister and its sister's specifier.[13]

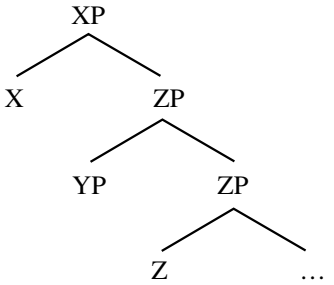
A problem ordering the "complements of T" linearly, or otherwise distinguishing them, might be expected to result in this situation but does not. The relevant head's sister and its sister's specifier are asymmetrically ordered by the c-command relation, because, again in the example above, DP c-commands *v*P but not vice versa. DP c-commands *v*P because it excludes *v*P, and the first category that dominates DP dominates *v*P

[12] The term *category* is a primitive. *Category* does not correspond to *node*, as will become clear.
[13] Chomsky (1993) assumes that a category dominates its specifier, which is then not part of minimal complement domain of the superjacent head. However, Chomsky (2001) assumes that the specifier of a category does not belong to that category's phase but rather belongs to the next highest phase, effectively allowing "downward" checking as proposed here, but not respecting the mutual c-command requirement imposed here, nor deriving the indistinguishability of checking and selection that I have attempted to establish.

(namely, TP). But *v*P does not exclude DP (because one segment of *v*P dominates DP), so *v*P does not c-command DP. Therefore, although DP and *v*P both stand in the mutual c-command relation with T, these two dependents of T are distinguishable, because DP asymmetrically c-commands *v*P. So, by Kayne's Linear Correspondence Axiom, according to which asymmetric c-command entails linear precedence, DP precedes *v*P. And since T c-commands *into* both DP and *v*P, but material inside DP and *v*P does not c-command T, the head T precedes both DP and *v*P (see Kayne 1994).

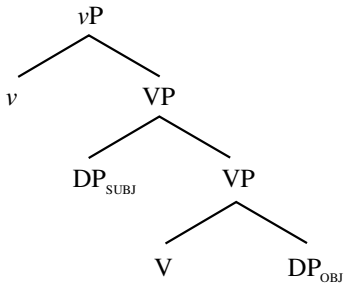
More generally, in the configuration schematized in (19), the head X mutually c-commands both YP and ZP, yet these categories are linearized in the order they occur: X < YP < ZP. The linear order is ultimately determined by the derivational order. In this case, X is lexically specified to first select ZP, then YP, and material merged later c-commands material merged earlier (the principle of Extension postulated in Chomsky 1993). Regarding Extension, note that the last merged element, YP, c-commands both its selector, X, and X's other dependents, in this case ZP. It does not c-command XP but also does not bear any lexical relationship whatsoever to XP, nor vice versa.

(19)



Thus, though *v* cannot select its subject DP in the configuration in (18), assuming (16), it can select it in the configuration in (20), where *v* is in the mutual c-command relation with both DP and VP (its two arguments).

(20)



These consequences of the definitions in (17) represent a desirable state of affairs, because they make it unnecessary in structure building to invoke any syntactic configuration other than mutual c-command, the most local relation possible, yet do not structurally conflate multiple complements of a head; the dependents of a given head are asymmetrically ordered. This conclusion is tantamount to the claim that syntax is literally purely head initial. A selector or checking category always precedes all its dependents, not just its "internal" ones. This conclusion is not always empirically justifiable, as one can point to any number of cases where, for example, a checking category follows its dependent (the relation between the nominative subject and T in English, for example, though see below). But the assumption is also not clearly falsifiable as a combinatorial generalization modulo movement, no more so than the currently widespread assumption, based in part on Kayne's work cited previously, that heads universally precede their complements. Complement-head word order is in evidence in many languages; such cases are taken to involve displacement of the complement. The discussion that follows is intended to demonstrate that the proposal made here, though it seems to turn syntax on its head, is in fact quite in line with the conventional understanding of what is related to what in Case, agreement, and thematic dependencies.

Suppose (20) is the D-structure for transitive predications. There are two surface positions available for the subject DP in English, one following T and the other preceding it:

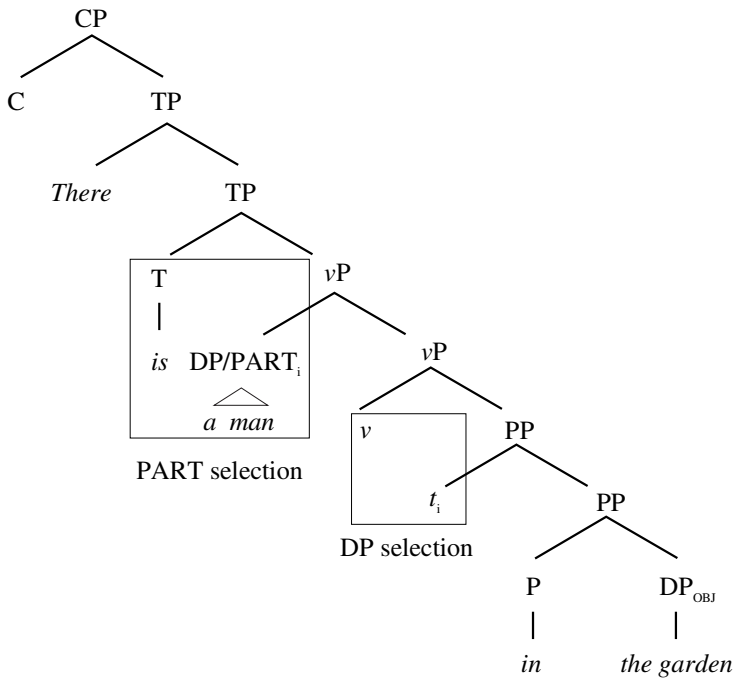
(21) a. There is [$_{\text{Pred}(=v\text{P})}$ a man in the garden].
b. A man is [$_{\text{Pred}(=v\text{P})}$ in the garden].

Belletti (1988) claims that these two surface positions are distinct Case positions. The subject bears partitive Case in (21a) and nominative Case in (21b), accounting for the definiteness effect associated with predicate-internal subjects.

Assuming, after Belletti, that *be* licenses partitive Case, the word order in (21a) is the one predicted by the analysis presented here, where Case checking obtains in the mutual c-command (i.e., complement-of) configuration, as diagrammed in (22).[14] Following the discussion in section 3.1, the constituent *a man* bears two categories: DP and the partitive Case category PART. Initially, DP is selected by *v* under mutual c-command, as in (20). Subsequently, the auxiliary is merged and selects PART, triggering raising of the constituent with category PART (*a man*) into the mutual c-command configuration with the auxiliary, as in (22).

[14] If objective Case in transitive predications (possibly including the prepositional predicate here) is assigned outside of the predicate, as Koopman (1987) and Chomsky (1991) claim, then there is some additional structure in (22), namely an external Case assigner for the object (e.g., Agr$_{\text{O}}$P as Chomsky proposes), situated between TP and *v*P. See also Kayne 1989.

(22)



If the auxiliary is indeed the partitive Case licensor, then it seems that unlike accusative Case licensing, partitive Case licensing does not require adjacency:

(23) There is sometimes a man in the garden.

This fact suggests either that (like, e.g., the verb-object Case dependency in French), *be* licenses partitive Case on the subject in a lower level of structure and subsequently moves to T over the adverb, or that partitive Case is not in fact licensed by the auxiliary *be* after all, but by aspectual structure under T, this latter possibility being especially likely in light of the famous relationship between partitivity and aspect in Finnish and languages displaying nonaccusative alternations (e.g., ergativity) based on aspect (see Kiparsky 1998 for an overview of the Finnish case).

Because the tensed auxiliary is in T, and nominative subjects precede the tensed auxiliary, as in (21b), nominative subjects do not seem to be local to tense, which is problematic if tense licenses nominative Case. However, the traditional view that it is tense that licenses nominative Case, based on the covariation between finiteness and nominativity observed in English and other languages (Chomsky 1980), overlooks the fact that tense also covaries with at least two other properties—namely, the form of the complementizer and modality. Tellingly, the *non*finite complementizer *for* is a Case licensor.

(24) a. For John to say that was inconsiderate.
b. *John to say that was inconsiderate.
c. That John said that was inconsiderate.

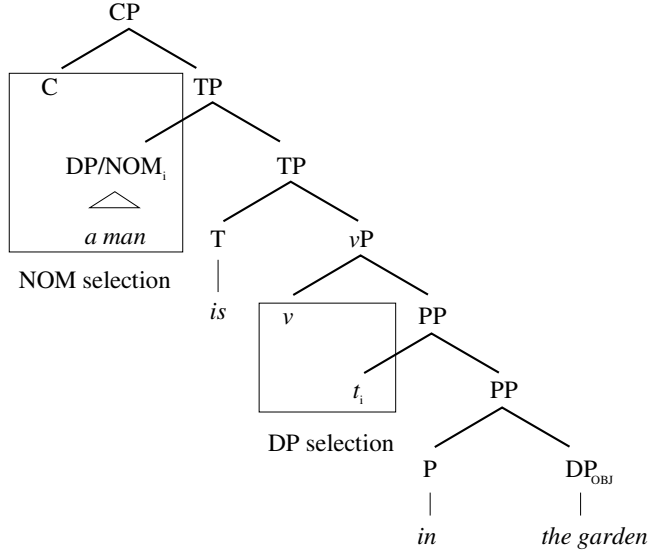
A nominative subject occurs only in tensed clauses (24c). In nontensed clauses, a subject is allowed only if it receives case from an outside governor (cf. (24a,b)). *For* is the Case licensor in (24a), analyzed as a complementizer by Bresnan (1970), Kayne (1981), and others.

That is ungrammatical in nonfinite clauses.

(25) *That (John) to say that was inconsiderate.

It is therefore not clear that it is (finite) T that licenses nominative and not (finite) C, because finite C is excluded just when T is nonfinite. The facts are compatible with the premise that nominative Case is licensed by (potentially null) finite C, analogous to Case licensing by *for* in (24a), a suggestion advanced by Stowell (1981).[15] Example (21b) then has the structure in (26). Here, the constituent *a man* has categories DP and NOM. The former is selected locally by *v*, the latter by C, triggering raising into a configuration local to C.

(26)



[15] Stowell remarks that CPs obey his Case Resistance Principle, a characteristic of phrases headed by Case assigners, and infers that C is a Case assigner.

There is a difference between the putative Case-checking relationship in (26) and the relationship between *for* and *John* in (24a), which is that adjacency is crucial in the latter case and not in the former:

(27) a. *For even casually John to say that was inconsiderate.
b. That even casually John said that was inconsiderate.

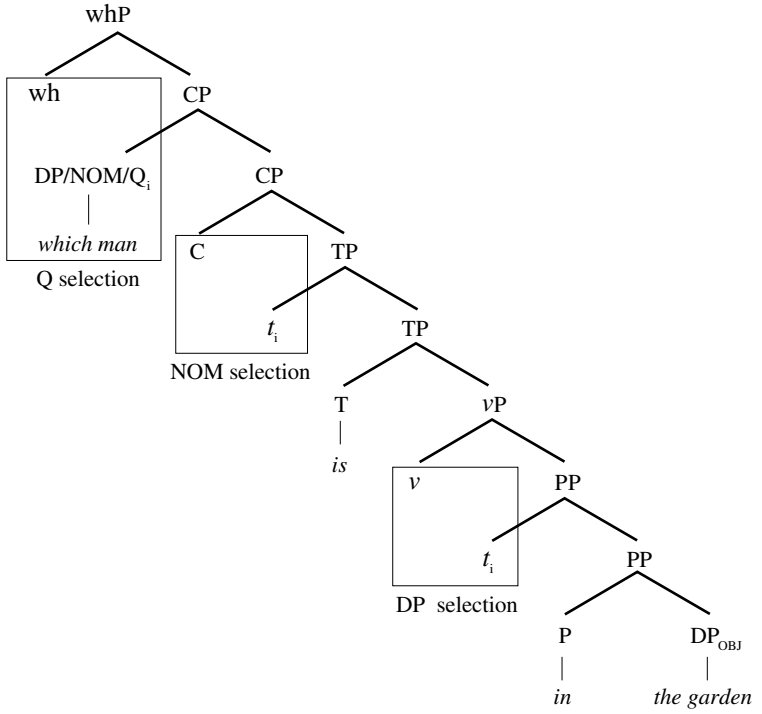
The earlier remarks on the adjacency facts in (22) apply here also. The complementizer may assign nominative Case prior to movement to a higher functional projection to the left of the adverb. Alternatively, nominativity may not be related to C directly but to functional structure below C (but above TP), and indeed, Aygen (2002) claims that nominative Case is a reflex of a dependency between the subject and epistemic modality and that finiteness itself is a syntactic complex, an amalgamation of modality and mood, features associated with functional structure in the CP domain. The proposal that Case is checked downward from the checking category to the checked category is compatible with these facts.

Because *wh*-elements precede C,[16] they cannot be selected by C in view of this analysis but must be selected by a higher *wh*-head independent of C, as postulated previously by Hoekstra (1993), Zwart (1993), Müller and Sternefeld (1993), and others. In (28), *wh*-licensing obtains between the null *wh*-head and the nominative quantifier (Q) DP *which man*, again in the mutual c-command configuration, and again subsequent to the satisfaction of the distributional requirements of the other categories of *which man*.

[16] As evidenced in languages where *wh*-elements co-occur with overt C, as in Belfast English, as reported by Henry (1995).

(i) I wonder which plate that he bought.

(28)



These considerations indicate that the analysis presented here is compatible with the word-order facts of English and with conventional views of what elements are involved in the relevant dependencies. This makes it possible to dispense with the spec-head configuration as a syntactic primitive within a theory that remains compatible with the word-order facts of English and the general Case-theoretic take on these facts.

5. Conclusion

I have endeavored to show that there is an approach to local relations that meshes quite unobtrusively with standard accounts of phrase structure and the dependencies that underlie grammatical well-formedness, but is theoretically minimalist, because it does not invoke any configurational distinction between feature checking and selection and does not invoke the specifier-head configuration as distinct from the head-complement configuration. The considerations reviewed here paint a rather positive picture of the possibility that the configurations underlying Case assignment, agreement, and thematic and other selectional relations reduce to the definition of c-command in (17) and the stipulation that *Select* is a local relation, meaning that whenever two elements from the lexical array stand in the relation *Select*, each must c-command the other. This proposal reduces

the inventory of theoretical distinctions with no loss of empirical accountability.

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