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1. Introduction

Kayne's work over the last ten years or so starting with Kayne (1994) can be viewed as a grand pursuit of a particular theory of Universal Grammar (UG), which might be called the Kaynean approach. Since Kayne (2005) Movement and Silence (henceforth M&S) under review is the current culmination of the Kaynean approach, it will be necessary and appropriate to go back to its two milestones, i.e. Kayne (1994) and Kayne (1998) to identify its building blocks.

The Kaynean approach consists, in my view, of two major hypotheses about the organization of UG, namely the antisymmetry hypothesis (1994) and what I will refer to as the overt syntax hypothesis (1998). The antisymmetry hypothesis comprises two key ingredients, the Linear Correspondence Axiom and what I will refer to as the Time Stipulation:

(1) a. The Linear Correspondence Axiom
(The Symmetrical LCA)
d(A) is a linear ordering of T. (Kayne (1994: 6))
b. The Time Stipulation
Each time slot is paired with the substring of terminals ending [emphasis mine, S.T.] with that terminal.

(Kayne (1994: 37))

The LCA is supplemented by the definition of c-command in terms of “the first node up,” rather than “the first branching node” (Kayne (1994: 7)), and the notions of segment and category proposed by May (1985).

(2) C-command
X c-commands Y iff X and Y are categories and X excludes Y and every category that dominates X dominates Y.

(Kayne (1994: 16))

The LCA as stated in (1a) is “symmetrical” in the sense that it allows two possibilities of linear order: “precedence” and “subsequence.” Combination with the Time Stipulation renders the LCA “antisymmetrical” because the stipulation reduces these two order possibilities to the one possibility of “precedence.”

(3) The Asymmetrical LCA
Let X, Y be nonterminals and x, y terminals such that X dominates x and Y dominates y. Then if X asymmetrically c-commands Y, x precedes y. (Kayne (1994: 33))

Because of the definition of c-command in terms of “the first node up” and the notion of segments, the following two results follow:

(4) a. Specifiers are a case of adjunction. (Kayne (1994: 22))
   b. The adjunction of more than one nonhead to a given nonhead is impossible. (Kayne (1994: 22))

From these it also follows that there is only one specifier position per head, and that there can be no rightward adjunction, which I will refer to as the ban on rightward adjunction.

The overt syntax hypothesis is summarized in his Abstract:

(5) UG leaves no choice: Scope must be expressed hierarchically, there are no covert LF phrasal movements permitted by UG, and neither can the effect of covert phrasal movement be achieved by feature raising. Scope reflects the interaction of merger and overt movement. (Kayne (1998: 128))

M&S is basically a collection of papers each demonstrating that the

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1 I refer to this as a stipulation because an arbitrary choice of ending is made over the obvious choice of beginning with no clear justification.
Kaynean approach can be maintained if it is assumed that each language discussed contains various silent (empty) heads and involves (massive) movement operations often triggered by these silent heads. The book does not contain, at least not to my knowledge, any empirical evidence that shows that the Kaynean approach, and the antisymmetry hypothesis in particular, must be chosen over other possible approaches.

That silent elements and movement are among the necessary tools to describe languages is hardly controversial. However, UG certainly does not allow for just any syntactic object, silent or otherwise, to be used freely. Restrictions on the use of syntactic objects along the following lines seem in line with the Economy of Representation of Chomsky (1995).

(6) Syntactic objects must have either semantic or phonological content (or both).

Movement, on the other hand, is assumed in the minimalist theory of Chomsky (1995, 2004, 2005) to be triggered by some uninterpretable feature. Therefore, all proposed movement operations should be carefully examined to see if they are motivated by some uninterpretable feature.

In M&S, Kayne presents various arguments from an impressive range of languages in an effort to establish the validity of the Kaynean approach, and it is beyond the scope of this paper to do justice to the range and depth of phenomena examined across languages. However, since the basic tenet of all the M&S papers is that the Kaynean approach can be maintained if the proposed silent elements and movements are assumed, and not that it must be maintained, it is not necessary to examine each and every one of the presented arguments to show that there are other possibilities.

A demonstration of how some of the phenomena accounted for by silent elements and movement can be dealt with equally well with a different set of assumptions and devices alone should suffice to show that the Kaynean approach is not necessarily the right one. The issue would then be concerned with which conception of UG is superior.

The rest of this paper is organized as follows. In Section 2, I will present an alternative account for some of the phenomena involving adpositions discussed in M&S, showing that an equally viable and much simpler alternative treatment of Kayne’s analyses is possible under a different conception of UG, if we generalize Chomsky’s (2005) inactivity condition. I will argue that the Time Stipulation should be dropped
and that UG should allow both options of precedence and subsequence. In Section 3, I will examine Kayne’s suggestion about Japanese being a head-initial language, in particular in Whitman’s execution. I will show that the particles *wa*, *ga* and possibly *o*, do form a constituent with their preceding elements, contrary to their claim. In Section 4, I will examine Kayne’s (1998) account of English negation scope and quantifier scope interaction, and show that a much simpler account is possible if the Time Stipulation and the ban on right adjunction are dropped while still keeping to the overt syntax hypothesis of Kayne (1998). In Section 5, I will show that a unified and simpler account of quantifier scope in English and Japanese is not possible within the Kaynean approach. In Section 6, I will demonstrate that a simple and unified account of quantifier scope interaction and negation scope is possible if we drop the ban on right adjunction and the Time Stipulation, and slightly change our assumptions about the derivational relationships among scrambled and unscrambled sentences. Section 7 will summarize and conclude this paper.

2. Adpositions as VP-external Heads?

Typical examples of papers contained in M&S are those dealing with adpositions. In Chapter 9 “Antisymmetry and Japanese” Kayne proposes:

first, that functional P is not merged directly with its object but is rather merged outside VP; second, that P is typically paired with a head K (for Kase) that is visible in some languages [but not others, S.T.] and is also merged outside VP (but below P).

He gives the following as an illustration of the derivation for *John was looking at us*.

\[(7) \quad \text{a. [VP looking us] — merger of K} \rightarrow \text{b. K [VP looking us] — attraction of DP to Spec,K} \rightarrow \text{c. [KP us K [VP looking t₁]] — merger of P} \rightarrow \text{d. at [KP us K [VP looking t₁]] — attraction of VP to Spec,P} \rightarrow \text{e. [VP looking t₁] at [KP us K t₁]}\]

Kayne notes that in (7e) the string *at us* does not form a constituent.

Kayne goes on to propose that in languages like Japanese a comparable verbal expression goes through the following derivation, where P’ is a silent “double of P.”

\[(8) \quad \text{a. [VP looking us] — merger of K} \rightarrow \]

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\[(8) \quad \text{a. [VP looking us] — merger of K} \rightarrow \]
b. K [VP looking us] — movement of DP to Spec, K →
c. [KP us K [VP looking ti]] — merger of P' →
d. P' [KP us K [VP looking ti]] — movement of VP to Spec, P' →
e. [PP [VP looking ti]j P' [KP us K tj]] — merger of P →
f. at [PP [VP looking ti]j P' [KP us K tj]] — movement of KP to Spec, P →
g. [PP [KP us K tj]k at [PP [VP looking ti]j P' tk]]

Kayne notes again that in (8g) the string us at does not form a constituent.

Kayne defends these derivations by the fact that they derive the putative generalization about the absence of (9).

(9) *V DP P

If (7e) and (8g) were the only options allowed by UG, then (9) would be ruled out because English-like languages would have V-DP(-K) as in (7e) and Japanese-like languages would have DP(-K)-P-V-(P') as in (8g).

However, (9) will follow automatically under the more traditional assumption of the Head-Directionality Parameter (Travis (1984)). If all languages are either uniformly head-initial or head-final (with a few possible exceptions), then the only unmarked orders are DP-P-V and V-P-DP. Thus, V DP P would be an exception at best. Therefore, the two derivations in (7) and (8) need further independent motivation that justifies such a complication. Such motivation is provided not in M&S itself but in Kayne (2000: Ch. 14), where the fact that P and DP do not form a constituent in the derivation of (7) is used to account for the extractability of wh-phrases.

Kayne (2000) starts out by citing the observation of Chomsky (1977) that the wh-extraction of who in (10) below requires the previous application of a “readjustment” rule that breaks up the object phrase a picture of who.

(10) Who was John admiring a picture of?

Kayne notes that such a readjustment rule is not necessary if of can be merged outside the VP, and hence of and who do not form a constituent. More specifically Kayne’s derivation of (10) contains the following subderivation.

(11) a. [VP admiring [who a picture]] — merger of K-of →
b. K-of [VP admiring [who a picture]] — movement of who to Spec, K-of →
c. [who\textsubscript{i} K-of [\textsubscript{VP} admiring [ti a picture]]] — merger of of → d. of [who\textsubscript{i} K-of [\textsubscript{VP} admiring [ti a picture]]] — movement of \textsubscript{VP} to Spec,of →

e. [PP [\textsubscript{VP} admiring [ti a picture]] of [who\textsubscript{i} K-of tj]

In (11e) the sequence of who is not a constituent, and that, Kayne argues, accounts for the extractability of who.

Kayne also notes that this analysis will account for the deviance of the following example (Kayne (2000: 316)).

(12) *Tell me who a picture of just arrived in the mail.

Before the extraction of who, Kayne says, (12) would have to have contained the subject a picture of who, which cannot be formed by merging the functional preposition of above \textsubscript{VP}. The only way to form the string a picture of who is to use a non-functional preposition of and merge it with who. In that case, who is not extractable, hence the deviance of (12).

Thus, the deviance of (12) can be viewed as constituting evidence for Kayne's proposal to introduce functional prepositions above \textsubscript{VP}, assuming there is no simpler or better account for (12). The deviance of (12), however, can also be accounted for by a natural extension of Chomsky's (2005) mechanism of A and A' movement.

Chomsky proposes that “only phase heads trigger operations,” and that A-movement and A'-movement are both triggered by a phase head, \textsubscript{v*} and C, but mediated by V and T, respectively in the case of A-movement. He further proposes the Inactivity Condition.

(13) \textbf{The Inactivity Condition}

An A-chain becomes invisible to further computation when its uninterpretable features are valued. (Chomsky (2005: 16))

This set of assumptions accounts for an otherwise mysterious contrast between (14a, b) derived from (15a, b), respectively.

(14) a. of which car did they find the picture (Chomsky's (5ii))
b. *of which car did the picture cause a scandal (Chomsky's (6ii))

(15) a. [CP C [\textsubscript{TP} T [\textsubscript{v*P} they [\textsubscript{VP} find the picture of which car]]]]
b. [CP C [\textsubscript{TP} T [\textsubscript{v*P} the picture of which car [\textsubscript{VP} cause a scandal]]]]

In the derivation of (15a) V inherits the agreement features from \textsubscript{v*}, agrees with the object the picture of which car, valuing its Case feature with Accusative and raising it to Spec,V (A-movement). In parallel
with this, v* extracts of which car to its outer Spec v*P. This does not violate the Inactivity Condition: the valuing of the object takes place only after v* is merged and since valuing and extraction take place in parallel, the object is unvalued and hence visible when the wh-phrase is being extracted by v*. Later, when C is merged, the wh-phrase of which car can be further extracted, eventually giving (14a).

In the derivation of (15b) v* cannot extract the wh-phrase of which car, because the phrase is contained in the subject and hence is not in the search domain of the probe v*. Therefore, when C is merged, it has to extract the wh-phrase from within the phase, v*P, which has already been passed. This, Chomsky says, comes with a cost, hence the deviance of (14b).

Now, given the Inactivity Condition, the contrast between (10) and (12) can easily be accounted for without merging P outside VP and more importantly without any silent elements or massive movement operations, or any “readjustment rule” for that matter. Consider the simplified underlying structure of (10) given below in (16).

(16) [CP C [TP is [v*P John [v* [VP admiring a picture of who]]]]]

If the preposition of agrees with who and values its uninterpretable features, most crucially its Case feature, then following (13) it is invisible to any further operations and hence cannot be extracted. However, suppose that a preposition can lose its agreement (Case) features when used in a verbal complex like admire a picture of, or in Kaynean terms, as a “functional” P, and can inherit an agreement (Case) feature from the phase head v*. This gives the desired result that the object who remains unvalued, and hence visible when v* is merged and tries to extract it to Spec, v*. This accounts for the grammaticality of (10).

The proposed account presupposes that for each such “verbal complex” the lexicon contains a statement that the preposition contained has suppressed its Case feature. This need not be taken as a disadvantage of the proposed account because Kayne’s account also has to state, presumably in the lexicon, when a “functional” P can be used. (In fact, the proposed account fares better than Kayne’s because it does not need the stipulation that a functional P is merged above VP, as opposed to TP, for instance.) It also remains to define what constitutes a verbal complex. I assume that such notions as “semantic integrity” and “possible lexical item,” which are subject to individual variation, are involved.

The mechanism of Case suppression of a preposition is independently needed to account for passivization of the object of various verbal complexes involving a preposition such as look after, take care of, etc., though under somewhat different
In the derivation of (12), on the other hand, there is no $v^*$ to agree with the object *who* through inheritance by *of* because the verb *arrive* is unaccusative. The option of suppressing an agreement (Case) feature of *of* is the only way to make *who* visible and hence extractable. However, this option cannot be used because, with no $v^*$ c-commanding it, there is nothing else that can value the Case feature of *who*. This accounts for the deviance of (12).³

Given this simpler alternative, the use of numerous silent elements and massive movement operations necessary for the proposal that a functional $P$ is merged above VP does not have any significant motivation other than maintaining the Kaynean approach, and the antisymmetry hypothesis in particular.

Furthermore, Kayne's treatment of adpositions faces two serious difficulties. First, if the string *at us* does not form a constituent in (7e) as Kayne claims is the case, then it is predicted that the string *at us* cannot be conjoined with another similar string if, as is generally assumed, only constituents of the same type can be conjoined (Cf. Bowers (1993) and Radford (2004)), and hence the following examples should all be ungrammatical.

(17)   a. We should look both at the up side and at the down side of the whole situation.
       b. The cat pounced both at the sparrow and at the frog.
       c. The outcome depends both on your score and on the scores of the others.

But these examples are perfectly grammatical, contrary to the prediction of the analysis given in (7). It might be claimed, however, that the examples in (17) involve not just the string $P$-$DP$, but the whole $P'$ ($P$-bar) constituent, namely the string *at [usi K tj]* in (7e). Such a way out is possible in English, though it is highly suspicious because it involves the movement of a non-maximal projection. However, such a way out is not available for Japanese-type languages as seen in (8g),

³ See Tonoike and Egashira (in preparation) for a demonstration that this approach accounts for a variety of extraction violations, including extraction from PP adjuncts.
repeated below as (18).

(18) \[ [\text{PP} \ [\text{KP} \ \text{usi} \ K \ t_j]_k \ \text{at} \ [\text{PP} \ [\text{VP} \ \text{looking} \ t_i]_j \ P' \ t_k]] \]

Here, there is no constituent that includes \textit{us} and \textit{at} but excludes the overt verb \textit{looking}. Therefore, Kayne wrongly predicts that a coordination comparable to (18) is absolutely ungrammatical. Consider the following.

(19) a. Neko-ga suzume-ni-mo kaeru-ni-mo tobikakat-ta
    cat-Nom sparrow-at-and frog-at-and pounce-pst
    ‘The cat pounced both at the sparrow and at the frog’

b. Kare-wa chichioya-kara-mo hahaoya-kara-mo
    He-Top father-from-and mother-from-and
    dokuritu-si-ta
    independent do-pst
    ‘He became independent both from his father and from his mother’

The postposition \textit{ni ‘at’} in the combination \textit{ni tobikakar ‘pounce at’} and \textit{kara ‘from’} in \textit{kara dokuritu-su ‘become independent of’} are good candidates for what Kayne calls functional adpositions. Therefore, contrary to the fact, the examples in (19) should all be ungrammatical, if it is correct to assume that the correlative use of \textit{mo} is an instance of coordination.

It is worth mentioning in this connection that the structure in (8g) for Japanese-like languages makes an even worse prediction if the alleged structural independence of DP from P is a sufficient condition for the extraction of the DP, as Kayne claims. If Kayne’s claim is correct that (10) is grammatical because \textit{who} or \textit{[who; of t]} in (11e), to be exact, can be extracted to Spec,C, then by the same token, \textit{[KP us; K t]} in (8g) should be extractable in Japanese-type languages. This would mean that Japanese-type languages should allow adposition stranding. However, as attested by the following examples of Scrambling, this is absolutely impossible in Japanese.

(20) a. *Suzume, neko-ga \textit{t} \textit{i} ni tobikakat-ta
    sparrow, cat-Nom at pounce-pst
    ‘(Lit.) A sparrow, the cat pounced at’

\footnote{In the framework with the Inactivity Condition referred to above, the ungrammaticality of (20), i.e., the impossibility of adposition stranding, can be naturally handled by assuming that the option of suppressing the agreement (Case) feature on adpositions is not available in Japanese.}
b. *Chichiyoai, kare-wa ti kara dokuritu-si-ta
   father he-Top from independent-do-pst
   '(Lit.) His father, he became independent from'

The second serious difficulty concerns LF representations of semantically equivalent expressions. At the level of LF representation, two expressions from two languages should be identical if they are semantically equivalent. Therefore suzume-ni tobikakar-u and pounce at a sparrow should have basically identical LF representations. However, under Kayne's proposal (8) and (9), they would have radically different structures.

(21) a. [pounce ti]j at [a sparrowi K tj]
   b. [suzumei K tji]k ni [tobikakar ti]j P' tk

(21a, b) differ not only in the elements that form them but also in the c-command relationships holding among them. (21a) does not contain P', whereas (21b) does. Therefore, the two VPs are crucially different in the presence/absence of this silent element. If P' is a meaningful element, it follows that (21a) and (21b) have to be semantically different, which is highly counterintuitive and counterfactual. If P' does not have any semantic contribution, then it has neither phonological nor semantic content. This seems to violate the economy condition in (6).

Furthermore, even if we abstract away from linear order, the two structures are configurationally different. In (21a), the preposition at c-commands the DP a sparrow but not the verb pounce (or [pounce ti]j to be exact), whereas in (21b), the postposition ni does not c-command the verb tobikakar.

So the c-command relationships among P, V and DP are completely different between (21a, b). Within one language when the same elements can be put in two different orders (and hence different c-command relationships) they (usually) mean different things, just like (I came) here from far away and (I live) far away from here. Across languages, different c-command relationships among equivalent elements should also result in two different meanings. Kayne's analysis of adpositions illustrated in (7) and (8) thus leaves unsolved the important issue of cross-linguistic semantic equivalence.

In sum, Kayne's treatment of adpositions is inadequate in that it makes a number of wrong predictions about English and Japanese and fails to capture cross-linguistic semantic facts properly, not to mention the fact that silent elements like K, K-of, P' have little, if any, semantic
content and that the massive movement operations necessary in his analysis do not have clear uninterpretable features to motivate them.

3. Head Finality and Japanese

Within the Kaynean approach there are two ways to derive the SOV order from the head initial structure assumed to underlie all languages. One of them, illustrated below in (22), is proposed by Koizumi (2000) based on Kayne (1994).

(22) a. $\text{[CP C [TP T [VP SUB V OBJ]]]}$
    b. $\text{[CP [TP T [VP SUB IV OBJ]] [C' V-T-C tTP]]}$

In (22a) V raises to T and T to C, resulting in the verbal complex V-T-C, and the remnant TP raises to Spec,C, resulting in the SOV order in (22b).

The other way to derive the SOV order in Japanese in the Kaynean approach is Whitman’s (2005) execution of Kayne’s (1994) suggestion in his famous footnote 3 (p. 143). There Kayne suggests that the particles wa, ga and possibly o are initial heads occurring in this order and that the topic, the subject and the object raise to their specifier positions in the same order. A sentence of the form John ga Bill o ... for instance would be represented as in (23a) and the analysis is supported, Kayne claims, by the ungrammaticality of (23b).

(23) a. $\text{[John [ga [Bill o ...]]]}$
    b. *DP ga wa ...

Whitman (2005) fleshes out this rather cryptic suggestion with more examples, one of which is given below, where zoo ‘elephant’ is in Spec,wa and hana ‘trunk’ is in Spec,ga.

(24) 

Here, presumably (because Whitman does not make explicit how his
examples are derived), *zoo(-no) hana* ‘elephant’s trunk’ is base-generated VP-internally, and gets raised to Spec,*ga*, from where *zoo* is raised to Spec,*wa*.

Obviously, the proposals of Koizumi and Whitman cannot both be correct. In Koizumi’s execution, Spec,*C* is occupied by TP(IP), while in Whitman’s it is occupied by the topic. We will first examine Whitman’s proposal and come back to Koizumi’s later in section 5.

The most important claim that the Kayne-Whitman analysis makes is that the particles *wa*, *ga* and possibly *o* do not form a constituent with the element that precedes them. This is the point of (23b). Whitman points out as evidence for this claim the putative inability of the *ga*-marked subject to undergo Scrambling, as attested by the following example that Whitman cites from Shibatani (1990: 261).

\[(25) *[Sono hon ga]_i [Taro ga] [ti ii to] omotte iru (koto) that book Nom Taro Nom good comp thinking is fact ‘(that) that book, Taro thinks is good’\]

This argument, however, is based on a false generalization. It is often claimed that *ga*-marked subjects cannot scramble, but that is not true. The fact of the matter is that only slight deviance or difficulty results in some cases where a *ga*-marked subject is scrambled over another *ga*-marked subject, as in (25). The following examples, which are perfect, completely nullify the force of this argument and furthermore falsify the most crucial claim of the analysis that the subject and *ga* do not form a constituent.

\[(26) [Kimi-ga]_i [Tanaka-wa/mo [ti tekininsya da to] you-Nom Tanaka-Top/also right person is comp omotte i-masu)] thinking is-polite ‘(Lit.) You, Tanaka (also) thinks, are the right person’\]

\[(27) [Yamada-ga]_i [boku-wa/mo [ti tekininsya da to] Yamada-Nom I-Top/also right person is comp omoi masu)] think polite ‘(Lit.) Yamada, I (too) think, is the right person’\]

In these examples, the *ga*-marked complement subject is scrambled over the matrix *wa/mo*-marked subject, and yet they are perfectly grammatical. That these examples are perfectly natural, especially when read with a heavy stress on the initial *ga*-phrase and a slight intonational break after it, shows that the putative generalization that a *ga*-marked
subject cannot be scrambled is spurious. The slight parsing deviance in (25) is also shown to be due to processing difficulty resulting from the reversed sequence of ga-marked elements. Such difficulty is resolved in (26) and (27) because of the absence of the offending ga sequence. It should be further noted that these are also natural and easy to process because of the choice of verb forms. The verb form omotteimasu in (26) is felicitous with a third person subject in the declarative and not with a second person subject (unless with an interrogative interpretation). This rules out the possibility of taking kimi-ga as the matrix subject and Tanaka-wa as the complement subject. The verb form omoi-masu in (27), on the other hand, can be used felicitously only with a first person subject in the declarative (or, irrelevantly here, with a second person subject in the interrogative), and is incompatible with a third person subject, which requires omotte-i-masu as in (26). This rules out the possibility of interpreting Yamada-ga as the matrix subject and boku-wa as the complement subjects.5

With the processing/parsing difficulty resolved by these felicity conditions on the verb forms, (26) and (27) appear to be natural and grammatical/acceptable sentences.

Whitman puts forth a few more arguments in support of his proposal, but whatever other merits his proposal might have, the fact that (26) and (27) are grammatical refutes the most basic prediction of his analysis.

Summing up, it has been shown that contrary to what Kayne and Whitman claim, the strings XP-wa, XP-mo and XP-ga (where XP is most often DP in the case of ga) do form constituents and can be scrambled rather freely, demolishing M&S's major argument for initial heads in Japanese as well as his argument against head finality in general.

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5 Sige-Yuki Kuroda (p.c.) points out the possibility that examples like (26) and (27) are derived not by scrambling the embedded subject across the matrix subject, but by downgrading the matrix subject into the embedded clause. This might be true, but this option is unavailable in the Kaynean approach because it does not allow any kind of lowering operation.
4. Silent Elements, Movement and Scope

4.1. Kayne on English

Use of silent elements and massive movement operations is also key to Kayne's (1998) treatment of negation scope. He accounts for the fact that (28a) is ambiguous between the interpretation in which no one takes matrix scope (28b) and the one in which it takes complement scope (28c) by positing two silent elements, Neg and W, and three movement operations.

(28)  a. I will force you to marry no one.
     b. I will not force you to marry anyone.
     c. I will force you to not marry anyone.

The derivation of the matrix scope interpretation starts out with Neg and W in the matrix clause and then undergoes three movement operations: no one gets attracted by Neg (29b), Neg (presumably because of its feature +w) raises to W (29c); and VP gets attracted by W (29d).

(29)  a. I will W Neg [force you to marry no one]
     b. I will W no one, Neg [force you to marry ti]
     c. I will Neg+W no one, [force you to marry ti]
     d. I will [force you to marry ti,] Neg+W no one, ti

The fact that no one takes matrix scope is captured by the fact that it occupies Spec, Neg in the matrix clause.

The derivation of complement scope starts out with a structure in which the pair W Neg is in the complement clause and then goes through the same operations as in (29).

(30)  a. I will force you to W Neg marry no one.
     b. I will force you to W no one; Neg [marry ti]
     c. I will force you to Neg+W no one; [marry ti]
     d. I will force you to [marry ti,] Neg+W no one; ti

The fact that no one takes complement scope is captured by the fact that it occupies Spec, Neg in the complement clause. The ambiguity of (28a) is captured by the fact that the two derivations end in the same

6 W, according to Kayne (2000: 239), is an abstract functional head like T and it attracts elements like only which have "a feature +w (mnemonic for 'word order')" to itself and a VP to its specifier position. However, unlike T, W does not seem to have any semantic contribution. All it does, it seems, is to give a desired word order.
word order.

This is an ingenious way to handle the ambiguity, but a number of questions arise: Positing an abstract Neg is justified because it has semantic content, satisfying (6), and the attraction of no one to Spec,Neg has some plausibility because we do have other similar movements to specifier positions. However, the status of W and the two movement operations induced by it have no support on independent grounds.

W serves two purposes. One is to attract Neg, which would affect word order if Neg is overt. The other is that of triggering the remnant movement of VP. Remnant movement is one operation (ab)used repeatedly in the Kaynean framework, but it has hardly any motivation other than the fact that it produces the desired word order and it does not seem to be driven by any uninterpretable feature.

Kayne (1998) also proposes a similar approach in order to do away with covert operations like Quantifier Raising in accounting for quantifier scope interaction observed in such standard examples like (31).

(31) Somebody loves everybody.

Kayne suggests, following Brody (1990) and Beghelli and Stowell (1997), that a clause containing an every/each phrase also contains Dist (for Distributive) and W. This leads to the derivational process illustrated below, where ti is the VP-internal trace of the subject.

\[
\begin{align*}
&\text{(32) a. } [\text{TP somebody}_i \ T \ [W \ [\text{VP t}_i \ loves \ everybody]])] \\
&\quad \text{— attraction of everybody to Spec,Dist} \rightarrow
\\
&\text{b. } [\text{TP somebody}_i \ T \ [W \ [\text{everybody}_j \ Dist \ [\text{VP t}_i \ loves \ t_j]])] \\
&\quad \text{— movement of Dist to W} \rightarrow
\\
&\text{c. } [\text{TP somebody}_i \ T \ [\text{Dist}_k+W \ [\text{everybody}_j \ t_k \ [\text{VP t}_i \ loves \ t_j]])] \\
&\quad \text{— attraction of VP to Spec,W} \rightarrow
\\
&\text{d. } [\text{TP somebody}_i \ T \ [\text{VP t}_i \ loves \ t_j]], \text{Dist}_k+W \ [\text{everybody}_j \ t_k \ t_i]]]
\end{align*}
\]

In (32d) somebody c-commands everybody, accounting for the some>every reading. Kayne assumes that the subject somebody can reconstruct back to the position of the VP-internal trace ti within the trace of VP, ti, where it is c-commanded by everybody in Spec,Dist, accounting for the every>some reading. Thus, this analysis accounts for the scopal interaction of the two quantifiers.

However, this proposal suffers from a major problem, in addition to the problem concerning the use of remnant VP movement which does not seem to be driven by any uninterpretable feature. This concerns the use of reconstruction of the subject. It is well established that the
subject reconstructs to its original position in raising constructions, as
can be seen in the following classical example from May (1985: 97).

(33) A hippogryph is likely to be apprehended.
But the question for Kayne under the overt syntax hypothesis is how to
derive this without using a covert operation like Quantifier Lowering in
May (1985). Kayne has this to say about reconstruction:

...UG in some cases allows scope to be computed ‘under recon-
struction’, where reconstruction is not itself a movement opera-
tion but rather the option of taking into account the premovement
position of some phrase. (Kayne (2000: 261))

I take this to mean that the LF representation in (32d) is in itself
ambiguous and that UG has to have an extra mechanism for computing
scope. This is in sharp contrast with Kayne’s account of negation
scope. There, the ambiguous sentence has two distinct LF representa-
tions and no extra mechanism to compute scope is needed. The use of
such a mechanism certainly complicates UG and should therefore be
avoided if possible.

4.2. An Alternative: Overt QR to the Right

One can think of a much simpler alternative under a somewhat differ-
et conception of UG that does not depend on an ad hoc element like
W or a dubious operation like remnant movement.

Let us consider Kayne’s negation scope case first. Suppose we have
the following underlying structure in (34a), where no one is the internal
argument of marry.

(34) a. \[TP I will [\text{vP force you [TP PRO to marry no one]]}\]
    — rightward raising of no one —>
    b. \[TP I will [\text{vP[vP force you [TP PRO to marry ti]] no onei]]\]

Suppose that a negative element like no one takes scope in the clause it
finds itself in. Then, in (34a), it takes scope in the complement clause.
Suppose UG has a process that picks a scope-taking element like no
one within some domain like vP and adjoins it to the right side of that
domain. This process, applied to (34a), gives (34b). Here, suppose no
one is at least outside the complement clause and is contained in the
matrix clause, outside the scope of force. This then accounts for its
matrix scope in (34b). All we need is this rightward adjunction opera-
tion, which I will refer to as Overt QR for obvious reasons.7

7 I assume that Overt QR is driven by a need of a scope taking element like no
Let's now turn to Kayne's quantifier scope case. Suppose, first, that the movement of the subject from Spec,v to Spec,T, or A-movement in general is first and foremost the movement of the phonological material of the subject and that its semantic material can piggyback on this movement, if doing so results in an otherwise unavailable new interpretation. Then, (31) has the following derived structure given in (35), with the internal structure of vP simplified.

(35) \[TP /\text{someone} / T \ [VP \{\text{someone}\} \text{loves} /\{\text{everyone}\}/]\]

The phonological content of the subject \textit{someone}, represented as \text{/*someone/}, has been moved to Spec,T, but its semantic content, represented as \{\text{someone}\}, remains in Spec,v. Piggybacking in this case cannot apply because doing so does not produce a new interpretation. Both the semantic and phonological content of the object stay vP-internal. The fact that \{\text{someone}\} c-commands \{\text{everyone}\} in (35) accounts for the \textit{some}>\textit{every} reading.

\begin{enumerate}
\item [one] to take wide scope over another scope taking element like \textit{force}. If it is necessary to assimilate it into the standard EPP/Probe-Goal account, we might assume that the higher scope taking element, \textit{force} in this case, carries an EPP feature, acts as a probe, finds \textit{no one} as its goal, and raises it to the rightward adjunction site, giving it wider scope. See Tonoike (2003) for more details of an analysis along these lines.

8 This is the proposal of Tonoike (1999). It is to be regarded as an alternative to the standard copy theory of movement, where the whole of a moved element is copied and copies later undergo complementary deletion.

9 This is the mechanism of reconstruction. Reconstruction results when only the phonological content of an element is moved. Furthermore, the semantic content can piggyback on this phonological raising if doing so results in a new reading, as in (i).

(i) Someone seems to know the answer.

(ii) There is someone who seems to know the answer.

(iii) It seems that there is someone who knows the answer.

The \textit{some}>\textit{seem} interpretation results when the subject piggybacks on the A-movement. When it does not, the \textit{seem}>\textit{some} interpretation results. See Tonoike (1999, 2003) for more details.

Incidentally, this mechanism for the reconstruction of A-movement, if appropriately extended, can account for the inverse linking example of May (1985) that Kayne (1998:261) considers problematic for his overt syntax hypothesis.

(iv) One person from every city voted for Smith.

If we allow the \textit{every city} part of the semantic content of the subject to piggyback on the A-movement of the \textit{(phonological content of the)} subject, we get the following representation.

(v) /\text{One person from every city}/ T [\{\text{one person from every city}\} voted for Smith]
Suppose the same rightward adjunction operation as used in negation scope as outlined above can apply to /everyone/ in (35) and adjoin it to vP, giving the following representation.

\[(36) \quad [TP /someone/ T [vP [vP {someone} loves {everyone}]]]
\]

Here, the result is an A'-chain \{{everyone}, {everyone}\} and the head of the chain c-commands the vP-internal subject {someone}, under the simplest "first branching node up" definition of c-command. Adopting the most natural assumption that in an A'-chain only the head takes scope, we get the every>some interpretation, because the higher {everyone} c-commands {someone}. As in the case of negation, we arrive at two distinct LF representations for (35).\(^{10}\)

This gives a simple and straightforward account of the scope phenomena in English. The landing site of the movement is dictated by an economy condition: it adjoins to the lowest position necessary for a new scope relationship.

However, this is impossible in Kayne's theory because it is in direct violation of the ban on rightward adjunction. The issue then becomes whether the ban on rightward adjunction is justified or not. Ernst (2002) presents a number of examples with more than one adjunct stacked sentence-finally where the adjunct on the right has scope over the one on its left. Let us consider just one of his examples (Ernst (2002: 150)).

Assuming that the LF representation is obtained by peeling the phonological content off, we arrive at (vi).

\[(vi) \quad \{\text{every city}\} T \{\text{one person from every city}\} \{\text{voted for Smith}\}
\]

Here, \{every city\} c-commands \{one person\}, accounting for the inverse scope without covert movement.

\(^{10}\) An anonymous reviewer correctly points out that this will predict that the following example is unambiguous because what c-commands everyone.

(i) What did everyone buy for Mary?

I propose, contrary to the standard view that wh-moved elements take scope in SpecCP, that operators, including wh-operators, take scope within TP and a wh-element in SpecCP is there simply to mark the beginning of a wh-clause in English. See Tonoike (2005b) for more on the proposal. Under such a conception, everyone in SpecvP c-commands what within VP if both stay in situ. If what undergoes Overt QR before it is wh-moved, or the operator part of what piggybacks on wh-movement to outer SpecvP, what c-commands every. I will leave the option for future research.
(37) a. Julia did not take her medicine twice again.
   b. Julia’s failure to take her medicine twice happened again.
   c. Julia’s taking her medicine twice never happened again.

Ernst’s point is that (37a) and his other examples are ambiguous in a way not compatible with the LCA. (37a) is ambiguous between the two paraphrases (37b, c). (37c) is not problematic for the LCA because it is the expected interpretation if negation c-commands again. (37b) is problematic for the LCA because it is an interpretation that is possible only if again c COMMANDS negation.

Kayne might want to get around this problem by extending the account of (28a) and positing two silent elements WS (for Wide Scope) and W. The derivation of (37b) might then proceed as shown below; first by attracting again to Spec,WS; second by raising WS to W; and then by attracting XP to Spec,W.

(38) a. Julia W WS [XP did not ... twice again]
   b. Julia W againi WS [XP did not ... twice ti]
   c. Julia WSj+W againi tj [XP did not ... twice ti]
   d. Julia [XP did not ... twice ti]k WSj+W againi tj tk

(38d) has the desired word order, but the c-command relationship among the visible elements in question does not give the correct interpretation: again does not c-command not. In order for (38d) to capture the scope relationship between not and again, we must assume that XP undergoes reconstruction. Furthermore, if the use of WS is limited to the derivation of the again>not interpretation, then reconstruction must be assumed to be obligatory in this case.

The movement of XP is presumably a case of A’-movement and there is no evidence that A’-movement undergoes reconstruction. Rather, there is clear evidence that A’-movement structures do not undergo reconstruction. Consider the following example of Topicalization from Kuno (1991).

(39) Many of these books, all of us have read with great enthusiasm.

As Kuno points out, this example only has the many>all interpretation. If movement of XP is subject to reconstruction, it should apply to (39), predicting that it be ambiguous, or even unambiguous with only the all>many reading, if it is obligatory. Furthermore, the use of reconstruction would run into numerous difficulties including the complication of UG by extra scope-computing mechanisms, as pointed out above.

No such complications are necessary if we abandon the ban on right
adjunction as Ernst suggests. (37) would have the following structure where the scope relationship among the elements in question is captured straightforwardly by the c-command relationships among them, with the simplest branching node definition of c-command.

(40) [Julia [did not [take her medicine twice]] again] Twice is c-commanded by negation, which in turn is c-commanded by again, giving the again > not > twice interpretation. This requires no silent element, massive movement operations or scope computing mechanism whatever. All that is necessary is to allow rightward adjunction.

5. Japanese Quantifier Scope and Clausal Structure

Suppose we agree with Kayne on all aspects of UG including the overt syntax hypothesis except for his antisymmetry hypothesis (i.e. his Time Stipulation). Suppose we take the maximally general conception of UG and assume that all languages are the same in terms of the devices made available by UG (we will refer to this as the strong universality principle). Now consider the following standard examples of scopal interaction from Japanese.

(41) a. Dareka ga donohito-mo aisite-iru
someone-Nom every-person love-prs
‘(Lit.) Someone loves everyone’

b. Donohito-mo, dareka-ga ti aisite-iru.
every-person someone-Nom love-prs
‘(Lit.) Everyone, someone loves’

In English a comparable sentence containing two quantified phrases as in (41) is ambiguous between the some>every reading and the every>some reading. In Japanese, on the other hand, (41a) is unambiguous, having only the some>every reading. The scrambled version of (41a), (41b), is ambiguous between the new every>some reading and the original some>every reading.

Since the Kayne-Whitman analysis of Japanese clause structure with wa as C and ga as I is untenable, as demonstrated above, let us suppose, following Koizumi (2000), that Japanese has the following schematic clausal structure already given in (22) and repeated below as (42).

11 See Kuno and Takami (2002) for a non-standard view that (41a) is ambiguous.
V (as well as v, though omitted above) and T raise to C, and TP raises to Spec,C, giving the SOV order. Suppose, following Kuroda (1988), that the subject in Japanese stays in its VP-internal position. Suppose also by the strong universality principle that the same mechanism that Kayne proposes for English is available for Japanese so that W and Dist are above VP and that (41a) has the schematic underlying TP structure in (43), where t_v and t_TP are the traces of the verb and TP, respectively.

\[(43) \quad \text{[CP [TP [WP W [DistP Dist [VP dareka-ga donohito-mo t\_v]] aisite-iru-C t\_TP]]]}\]

By the strong universality principle, let us assume that Dist attracts donohito-mo, giving (44a), Dist raises to W, giving (44b); and the remnant VP gets attracted to Spec,W, giving (44c).

\[(44) \quad \text{a. [CP [TP [WP W [DistP donohito-mo\_i Dist [VP dareka-ga t\_i t\_v] t\_T]] aisite-iru-C t\_TP]]} \]

\[(44) \quad \text{b. [CP [TP [WP Dist\_j+W [DistP donohito-mo\_i t\_j [VP dareka-ga t\_i t\_v] t\_T]] aisite-iru-C t\_TP]]} \]

\[(44) \quad \text{c. [CP [TP [WP [VP dareka-ga t\_i t\_v]k Dist\_j+W [DistP donohito-mo\_i t\_j t\_k t\_T]] aisite-iru-C t\_TP]]} \]

This gives the desired word order of (41a) but the wrong scope interpretation: In (44c) dareka-ga ‘somebody’ does not c-command donohito-mo ‘everybody.’ Dareka-ga c-commands the trace of donohito-mo created by attraction by Dist. It might be argued that this quantifier can reconstruct to its base position, but to allow the every phrase to reconstruct from Spec,Dist nullifies the very motivation of positing such an abstract element. Besides, such an assumption was not necessary in the English case.

Donohito-mo, on the other hand, c-commands the trace of dareka-ga contained in the trace of VP, t_k. Thus, if VP reconstructs, (41a) is predicted to have only the every>some reading, which it does not. If VP does not reconstruct, then (48a) is predicted not to have the some>every reading, which it does. Either way (41a) is predicted to have an interpretation it does not have.

It might be argued that this wrong prediction is due to the assumption that the subject stays VP-internal. However, if the subject is raised to Spec,T, then the resulting structure should be ambiguous just like its English counterpart (31). Dareka-ga in Spec,T c-commands
donohito-mo in Spec,Dist, while donohito-mo in Spec,Dist c-commands the trace of the subject in the trace of the remnant VP. Thus, the Kaynean approach with Dist cannot explain the lack of ambiguity of (41a). The scrambled version (41b) should be derived from (44c) by extracting donohito-mo from Spec,Dist to some place in TP, giving (45).

\[
(45) \; \left[ CP \left[ TP \; \text{donohito-mo}; \; \left[ WP \left[ VP \; \text{dareka-ga} \; t_i \; t_V \right]_k \; \text{Distj-W} \; \left[ \text{DistP} \; t_i \; t_j \; t_k \; t_T \right] \right] \right] \; \text{aisite-iru-C} \right]
\]

Donohito-mo c-commands dareka-ga, accounting for the reading every>some. However, the some>every reading is not obtainable unless donohito-mo is allowed to reconstruct all the way back to the internal argument position, eliminating the rationale of positing Dist.

Thus, it has to be concluded that there is no simple or non-ad hoc way to account for the lack of ambiguity in (41a) and the presence of ambiguity in (41b) within the Kaynean framework.

6. An Alternative: Scrambling Is a Leftward Overt QR

Let us give up on using the Kaynean framework and see how we could account for (41a, b) in the proposed framework with a rightward Overt QR. First consider how to account for the lack of ambiguity of (41a). A simple answer would be to say that Japanese does not have a rightward Overt QR, and this is a reasonable answer as far as it accounts for the lack of ambiguity. However, the real challenge comes from the scrambled version (41b). The standard answer is that (41b) contains a trace of the scrambled object, and that the object can take scope either in its scrambled position, c-commanding the subject, or in its trace position c-commanded by the subject (See Kuroda (1969, 1971), Hoji (1985, 1986), Aoun and Li (1993)). However, these accounts based on traces would be tantamount to claiming in the current assumption of strong universality that in all languages, quantifiers can take scope in their original positions even when they are A’-moved, unless there is an independent factor that rules it out. But as pointed out earlier, this is falsified by Kuno’s example (39).12

12 Kuroda (1988) and Miyagawa (2001) assume that Scrambling is movement to Spec,T/I, hence an A-movement. This may be used to explain how it can undergo reconstruction, since we know that some cases of A-movement can undergo recon-
This leaves only one factually incorrect conclusion: (41b) cannot be ambiguous. This conclusion is unavoidable so long as we assume that (41b) is derived from (41a) by the process of Scrambling that moves an element to Spec,T/I or adjoins it to TP/IP. The ambiguity of (41b), however, can be automatically accounted for if (and in fact only if) we depart from the standard assumption and assume that (41b) is more representative of the underlying structure than (41a), and that the underlying structure of (41a, b) is a left-branching structure shown in (46), with the subject and object staying in situ, and the verb raising rightward up to T.\footnote{Here and later I am leaving open the possibility of the subject raising to SpecTP with subsequent raising of T to C. To indicate that I am leaving SpecTP unfilled.}

\begin{equation}
\text{(46)}
\end{equation}

\begin{center}
\begin{tikzpicture}
  \node {TP}
  child {node {T'}}
  child {node {VP}
    child {node {V}
      child {node {QP}
        child {node {donohito-mo}}
        child {node {aisite-\text{-}iru}}
      }
      child {node {QP}
        child {node {dareka-ga}}
      }
    }
  }
\end{tikzpicture}
\end{center}

If nothing more happens to this “basic” structure, where \textit{dareka-ga} ‘someone’ c-commands \textit{donohito-mo} ‘everyone,’ it has the \textit{some>every} reading. Now suppose that Scrambling is the Japanese counterpart of the English Overt QR, and that it picks an element within VP and left-adoins it to VP (or IP if necessary). This could apply to the object \textit{donohito-mo} and adjoin it to VP, giving (47) with the same word order.

struction, but it is not enough to say that something undergoes A-movement to account for ambiguity. What is important is the mechanism that brings about the effect of reconstruction. Under the proposed mechanism of A-movement, the raising of the subject to Spec,T/I is driven by its need to receive Case and has its phonetic form determined. Hence, only its phonological content need raise, though semantic content can piggyback on this movement when that leads to a new and otherwise unavailable interpretation. In the case of Japanese Scrambling, no such factor is involved. The phonetic form of the object is determined in its underlying position. Thus, to say that Japanese Scrambling can reconstruct because it is an A-movement is not much better than a stipulation.
Here *donohito-mo* c-commands *dareka-ga*. Therefore, (47) has the *every* > *some* reading. This accounts for the ambiguity of (41b). It has to be stressed that no use is made of any trace as in the standard account. Notice also that (46) is the exact mirror image of (35), and (47) is the exact mirror image of (36), except for the raising of the verb, subject and object. Also note that Scrambling seen in this way is the Japanese counterpart of the English Overt QR. It should be emphasized that under this proposal the ambiguities of the English (31) and the Japanese (41b) are accounted for by exactly the same mechanism. Scope ambiguity among QPs arises when (and only when) Overt QR/Scrambling string-vacuously reverses the c-command relationships between them. This is illustrated in (48).

(48)  

Under this proposal, the word order in (41a) can arise only as the result of scrambling the subject to the left of the object as illustrated in (49).
In (49) the scrambled subject asymmetrically c-commands the object, and this is the only structure that (41a) can have, accounting for its lack of ambiguity.

The fact that English (31) does not exhibit such a lack of ambiguity is due to the fact that in English the subject cannot undergo Overt QR/Scrambling to sentence-final position across the object. In other words, it is from the fact that Overt QR/Scrambling in English is subject to the string-vacuity condition.¹⁴

One major objection to this analysis of Japanese as an underlying OVS and superficially an OSV language is the fact that the word order most frequently observed in simplex examples is overwhelmingly SOV. One possible answer to this objection is that the unmarked order that the grammar of Japanese produces is OSV, but since Scrambling gives the constituent being scrambled higher prominence (wide scope being

¹⁴ The string vacuity condition on the English Overt QR accounts for the fact that scope ambiguity cases discussed by Kayne (1998) involving no one, only phrases, and quantified phrases share one common property of having these scopally ambiguous elements in the sentence-final position except for an extraposable constituent. The fact that (i) with sentence-final everybody is ambiguous whereas (ii) with sentence-medial everybody is not under normal intonation provides evidence for the string-vacuity condition.

(i) Somebody wrote a nasty letter to everybody.

(ii) Somebody wrote everybody a nasty letter.

I am assuming that Extraposition and Heavy NP Shift are instances of Overt QR in English. The fact that English DPs are subject to this condition is reducible, I assume, to the fact that unlike Japanese DPs, they lack overt Case marking except for pronouns.
its most conspicuous consequence), and in discourse it is most often the subject that receives the highest prominence, SOV is most frequently observed in discourse. That is, the basic order imposed by grammar need not be the same as the order most often utilized in discourse.

A natural question to ask at this point is why Overt QR/Scrambling is subject to the string vacuity condition in English and not in Japanese. It should be noted that if Heavy NP Shift and Extraposition are considered Overt QR/Scrambling, which I assume is the case, then overt QR/Scrambling is not entirely subject to the condition, and we can say that it escapes the condition when it serves to remove processing difficulty, i.e., when its effect is "visible." One factor distinguishing Japanese and English with respect to the string-vacuity of Overt QR/Scrambling is the fact that Japanese has case particles such as ga, o, and ni, whereas English lacks such particles.

A question may also be raised about the acquisition of string-vacuous Overt QR in English: How can children know that such an operation is at work when they don't know a priori that examples like (28) and (31) are ambiguous? I might answer that given ample evidence of sentence-final adjuncts obviously having scope over what is on their left, children can deduce that rightward adjunction is possible in English. That knowledge naturally leads to the possibility of ambiguous parsing, and that of a sentence-final constituent being adjoined to v*P or TP.

7. Conclusion

As far as I know, it was Smith (1978) who first pointed out that there is an extensive and exceptionless mirror image relationship between English and Japanese if you look at heads and their complements. Smith's work and other related work led to the conception of the Head Directionality Parameter. Kayne claims, in recent work, that UG does not have a Head Directionality Parameter, that all languages are underlyingly Spec-Head-Complement, and that different word orders result from the interaction of various silent elements and movement operations triggered by them.

In this review article I have shown that use of silent elements and massive movement operations is not necessary in accounting for wh-DP extraction in English. The Kaynean approach makes wrong predictions concerning the coordination of PPs and the extraction of DP's out of PPs in English-like and Japanese-like languages. This necessitates
dropping the Time Stipulation and adopting a symmetrical LCA, reviving the Head Directionality Parameter.

I have also shown that scope phenomena in English cannot be properly accounted for within the strict Kaynean approach, and that they are better and much more simply accounted for by an overt rightward adjunction operation, i.e. Overt QR, which points to the need to drop the ban on adjunction.

Furthermore, I have shown that in order to capture the QP scope interactions in both English and Japanese under a maximally general conception of UG, it is necessary to adopt a left branching clausal structure for Japanese, so that English and Japanese have a mirror image relationship not just with respect to heads and complements but in their over-all structure, as illustrated in (48). This again points to the need to drop the Time Stipulation and is the negative side of the coin for the Kaynean approach.

But there is a positive side to the coin. If the arguments of this paper are correct, the two major building blocks, which I think are the most important of the Kaynean approach remain intact.

(50) The Symmetrical LCA
Let X, Y be nonterminal Spec, Head or Complement and x, y terminals such that X dominates x and Y dominates y. Then if X asymmetrically c-commands Y, x precedes/follows y.

(51) The Overt Syntax Hypothesis
Every movement operation carries phonological content (but not necessarily all the semantic content).

(50) must be complemented by the Directionality Parameter, which chooses between precedes and follows in (50).

(50) makes no reference to adjunction, which has to be dealt with separately. Chomsky (2004) proposes to distinguish two different kinds of merger: Set Merge, which creates syntactic objects consisting of Head, Complement and Specifier; and Pair Merge, which adds an adjunct on a different dimension which later gets incorporated into the normal dimension.

Suppose we adopt this proposal. Considering the fact that languages differ with respect to the direction of adjunction, we need to assume that UG includes a parameter that determines the direction of adjunction, either to the left (as in Japanese), or to the right (as in English).

I do not claim that in this short paper I have accounted for every-
thing that Kayne claims his approach can account for with respect to Japanese. One good example is the question of the absence of relative pronouns in Japanese. I would like to leave the topics not addressed here for future research.

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