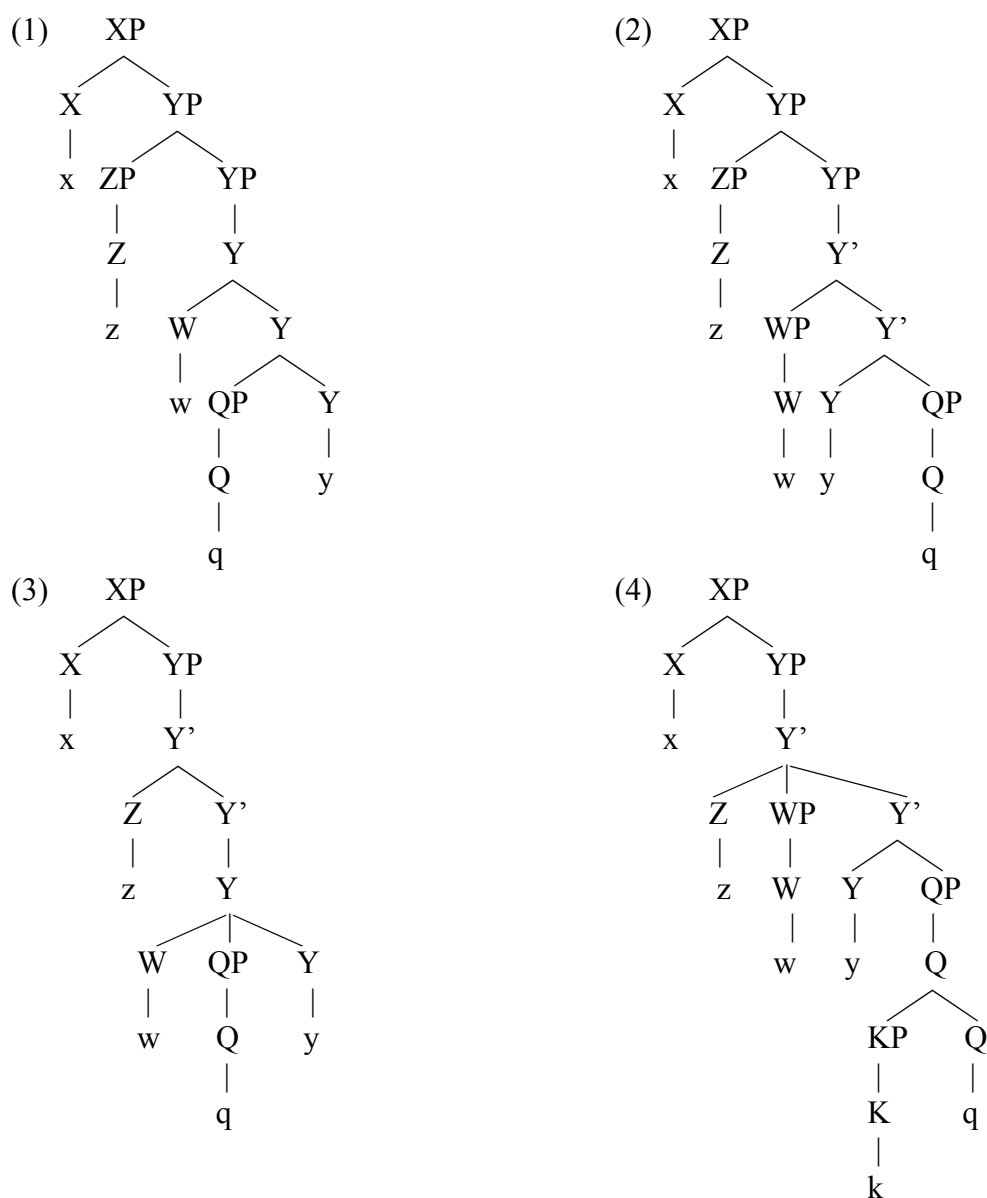


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*A note on the strong generative capacity of standard Antisymmetry Theory*

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My point here is that the strong generative capacity of Kayne's (1994) classical version of the *Antisymmetry Theory* (AT) is greater than usually claimed. Thus, AT is not as restrictive as it seems at first. In and of itself, this is neither good nor bad. It is an empirical matter whether additional types of structure apparently overgenerated by AT correspond to representations of natural language sentences. However, since those were initially thought to be blocked by the mechanisms of AT, and initially thought not to exist, it is worth showing that, unless AT is modified accordingly, such structures are indeed predicted to be well-formed, modulo the *Linear Correspondence Axiom* (LCA). In what follows, I presuppose full knowledge of AT from the reader, and I adopt the AT metalanguage to analyze each case. Given AT, the following types of configuration are supposed to be blocked by the LCA: (i) n-ary branching ( $n > 2$ ); (ii) heads adjoined to non-heads; (iii) non-heads adjoined to heads; (iv) multiple specifiers; and (v) multiple adjunction to heads. But look at (1-4):



The analyses of each tree above are given in the table below, where  $A$  is the set of all pairs  $\langle \alpha, \beta \rangle$ , such that  $\alpha$  &  $\beta$  are non-terminals and  $\alpha$  asymmetrically c-commands  $\beta$ .  $d(A)$  is the set of all pairs  $\langle \gamma, \delta \rangle$ , mapped from all pairs  $\langle \alpha, \beta \rangle \in A$ , such that  $\gamma$  &  $\delta$  are terminals, and  $\alpha$  dominates  $\gamma$ , and  $\beta$  dominates  $\delta$  (Kayne 1994: 3-6). Also,  $X$  c-commands  $Y$  iff (i)  $X$  and  $Y$  are categories; (ii) no segment of  $X$  dominates  $Y$ ; and (iii) every category dominating  $X$  also dominates  $Y$  (Kayne 1994: 16). In all cases above,  $d(A)$  is a linear ordering (i.e. transitive, total, asymmetric, irreflexive) of the set  $T$  of terminals, as required by the LCA (Kayne 1994: 6, 33). Thus, none of these phrase markers is ruled out.

	$A =$	$d(A) =$
(1)	$\{\langle X, Z \rangle, \langle X, W \rangle, \langle X, Y \rangle, \langle X, QP \rangle, \langle X, Q \rangle, \langle ZP, YP \rangle, \langle ZP, W \rangle, \langle ZP, Y \rangle, \langle ZP, QP \rangle, \langle ZP, Q \rangle, \langle W, Y \rangle, \langle W, Q \rangle, \langle QP, Y \rangle\}$	$\{\langle x, z \rangle, \langle x, w \rangle, \langle x, q \rangle, \langle x, y \rangle, \langle z, w \rangle, \langle z, q \rangle, \langle z, y \rangle, \langle w, q \rangle, \langle w, y \rangle, \langle q, y \rangle\}$
(2)	$\{\langle X, Z \rangle, \langle X, WP \rangle, \langle X, W \rangle, \langle X, Y' \rangle, \langle X, Y \rangle, \langle X, QP \rangle, \langle X, Q \rangle, \langle ZP, WP \rangle, \langle ZP, W \rangle, \langle ZP, YP \rangle, \langle ZP, Y' \rangle, \langle ZP, Y \rangle, \langle ZP, QP \rangle, \langle ZP, Q \rangle, \langle WP, Y' \rangle, \langle WP, Y \rangle, \langle WP, QP \rangle, \langle WP, Q \rangle, \langle Y, Q \rangle\}$	$\{\langle x, z \rangle, \langle x, w \rangle, \langle x, y \rangle, \langle x, q \rangle, \langle z, w \rangle, \langle z, y \rangle, \langle z, q \rangle, \langle w, y \rangle, \langle w, q \rangle, \langle y, q \rangle\}$
(3)	$\{\langle X, Y' \rangle, \langle X, Z \rangle, \langle X, Y \rangle, \langle X, W \rangle, \langle X, QP \rangle, \langle X, Q \rangle, \langle Z, Y' \rangle, \langle Z, Y \rangle, \langle Z, W \rangle, \langle Z, QP \rangle, \langle Z, Q \rangle, \langle W, Q \rangle, \langle W, Y \rangle, \langle QP, Y \rangle\}$	$\{\langle x, z \rangle, \langle x, w \rangle, \langle x, q \rangle, \langle x, y \rangle, \langle z, w \rangle, \langle z, q \rangle, \langle z, y \rangle, \langle w, q \rangle, \langle w, y \rangle, \langle q, y \rangle\}$
(4)	$\{\langle X, Y' \rangle, \langle X, Z \rangle, \langle X, WP \rangle, \langle X, W \rangle, \langle X, Y \rangle, \langle X, QP \rangle, \langle X, Q \rangle, \langle X, KP \rangle, \langle X, K \rangle, \langle Z, Y' \rangle, \langle Z, W \rangle, \langle Z, Y \rangle, \langle Z, QP \rangle, \langle Z, Q \rangle, \langle Z, KP \rangle, \langle Z, K \rangle, \langle WP, Y' \rangle, \langle WP, Y \rangle, \langle WP, QP \rangle, \langle WP, Q \rangle, \langle WP, KP \rangle, \langle WP, K \rangle, \langle Y, Q \rangle, \langle Y, KP \rangle, \langle Y, K \rangle, \langle KP, Q \rangle\}$	$\{\langle x, z \rangle, \langle x, w \rangle, \langle x, y \rangle, \langle x, k \rangle, \langle x, q \rangle, \langle z, w \rangle, \langle z, y \rangle, \langle z, k \rangle, \langle z, q \rangle, \langle w, y \rangle, \langle w, k \rangle, \langle w, q \rangle, \langle y, k \rangle, \langle y, q \rangle, \langle k, q \rangle\}$

From (1), (3) and (4), we conclude that the LCA prevents non-heads from adjoining to heads only if the hosting head has a complement. Also, double adjunction to a head is blocked only if (i) the head has a complement, AND (ii) both adjuncts are non-heads or both are heads. From (3) and (4), we conclude that the LCA prevents a head  $\alpha$  from being a specifier only if  $\alpha$  is symmetrically c-commanded by another head  $\beta$  immediately above it (Kayne 1994: 30-32). But nothing prevents the sister of  $\alpha$  from vacuously projecting so that this projection is the complement of the immediately higher head  $\beta$ , causing  $\beta$  to c-command  $\alpha$  asymmetrically. Also, as shown in (2), multiple specifiers are banned only if all of them adjoin to the same category (Kayne 1994: 21-22). Since nothing in AT explicitly prevents a category sister to a specifier from vacuously projecting, creating a new category (cf. Abels & Neeleman 2007), there can be one specifier for each of these projections (all of them distinct categories, not segments of a single category). From (3) and (4), we conclude that the LCA does not block ternary branching if (i) one of the three sisters is a segment of the mother category (which won't c-command any of the sisters), AND (ii) the other two sisters are necessarily one head and one non-head. Given that  $d(A)$  is a linear ordering of  $T$  in (4), we are forced to revise our conclusion about multiple specifiers above. In (4) we have two specifiers adjoined to the same category in a ternary branching. This configuration satisfies the LCA because (i) one specifier is a head and the other one a non-head, AND (ii) the category that hosts the adjuncts/specifiers further projects vacuously.

## References

- Abels, Klaus & Ad Neeleman. (2007) *Universal 20 without the LCA*.  
<http://ling.auf.net/LingBuzz/000279>  
 Kayne, Richard. (1994) *The Antisymmetry of Syntax*. Cambridge: The MIT Press.