

To understand exactly what the rules of anaphor binding are, we have to use the concept of c-command. Let's look at an example.

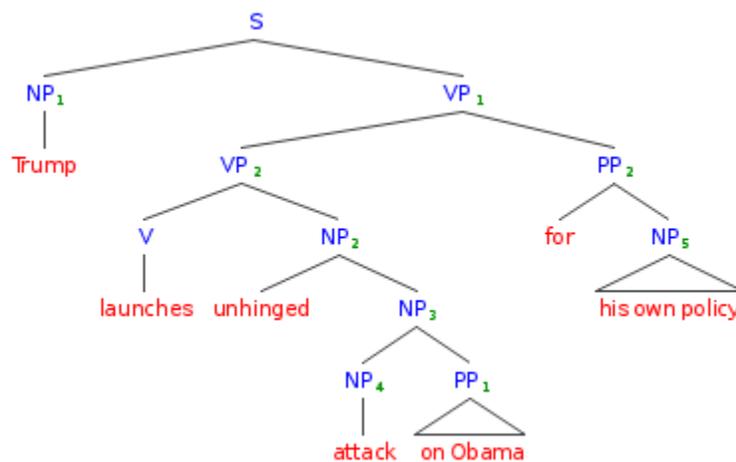
I once saw a YouTube video titled "[Trump launches unhinged attack on Obama for his own policy](#)". Does this mean Trump attacked Obama for Obama's policy, or Trump attacked Obama for Trump's policy? If you watch the video, you'll see the the meaning is the second one: the video is criticizing Trump for being hypocritical, because Trump attacked Obama for a policy that was actually Trump's. So we can show the coreference of the sentence as follows:

- 1) Trump<sub>i</sub> launches [unhinged attack]<sub>k</sub> on Obama<sub>m</sub> for [his own]<sub>i</sub> policy<sub>p</sub>.

If we assume that *his own* is an anaphor, then this looks like it challenges what I said before about English and Chinese. I said that in English, an anaphor generally has to be co-referenced to a nearby antecedent, whereas in Chinese it can have long-distance binding (e.g., 张三<sub>i</sub>叫李四<sub>k</sub>不要批评自己<sub>i</sub>). At first glance, here it looks like the English sentence is doing what I said English sentences can't do: "his own" is coreferenced to "Trump" even though "Trump" is farther away than "Obama".

However, in reality, "Trump" is *structurally* closer to "his own" than "Obama" is. To see this, we have to make a syntax tree, and use the concept of c-command. The syntactic structure of the sentence is shown below. "Attack on Obama" is a noun phrase. "Unhinged" is just an adjunct that attaches to the noun phrase and doesn't really affect the structural analysis here (remember the concept of *adjuncts*

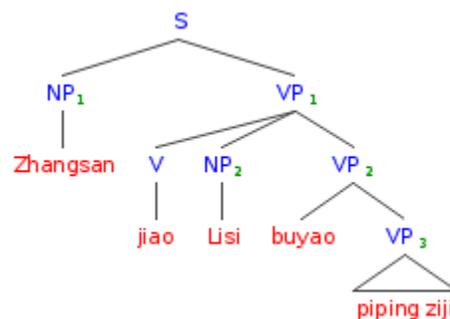
from the "Basic syntax" module), so "unhinged attack on Obama" is also a noun phrase. This whole phrase is the complement of "launches" – it's the thing that Trump launched – to make a verb phrase. "For his own policy" is a prepositional phrase adjunct modifying the verb phrase (describing why he launched the attack). Finally, "Trump", the subject, combines with this verb phrase to make a sentence.



Recall the definition of c-command, given in my note at the beginning of the *Carnie* reading. "Trump" c-commands "his own": you can draw a line from "Trump" up to the S node, and then all the way down to "his own". "Obama" does not c-command "his own": you cannot draw a line from Obama up to the PP node and then down to "his own" (to reach "his own", you still have to go up many more steps). Therefore, "Obama" is not a possible antecedent for "his own", and thus the fact that "his own" is coindexed to "Trump" here is not evidence for long-distance binding; in fact, "his own" is coindexed to the closest *valid* antecedent.

(There is another way this tree could be drawn, with "for his own policy" as a sister of "attack on Obama". Both structures are legitimate. If the tree is redrawn that other way, "Obama" still will not c-command "his own". If you are interested you can try this yourself to confirm.)

We can compare this to the Chinese case; a tree for the Chinese sentence is shown below. (This tree is rather oversimplified; to draw an accurate tree for this sentence we would need more theoretical concepts, particularly the null category called "PRO", which are beyond the scope of this class. Nevertheless, this tree is sufficient to show the c-command relations.)



In this tree, both 张三 and 李四 c-command 自己 (you can confirm this for yourself). Therefore, both are possible antecedents for 自己. The difference between Chinese and English is that in Chinese, 自己 really can corefer with either of them, but in English, "himself" or "herself" or "themselves" can only corefer with the structurally closer one (occupying the same position as 李四). To account for this difference, we need to assume either (a) anaphors in English follow different rules than anaphors in Chinese; or (b) anaphors in English and Chinese follow the same rules, but the sentence structures (trees)

are different (such that, in English, the subject "Zhangsan" actually does not c-command the anaphor).