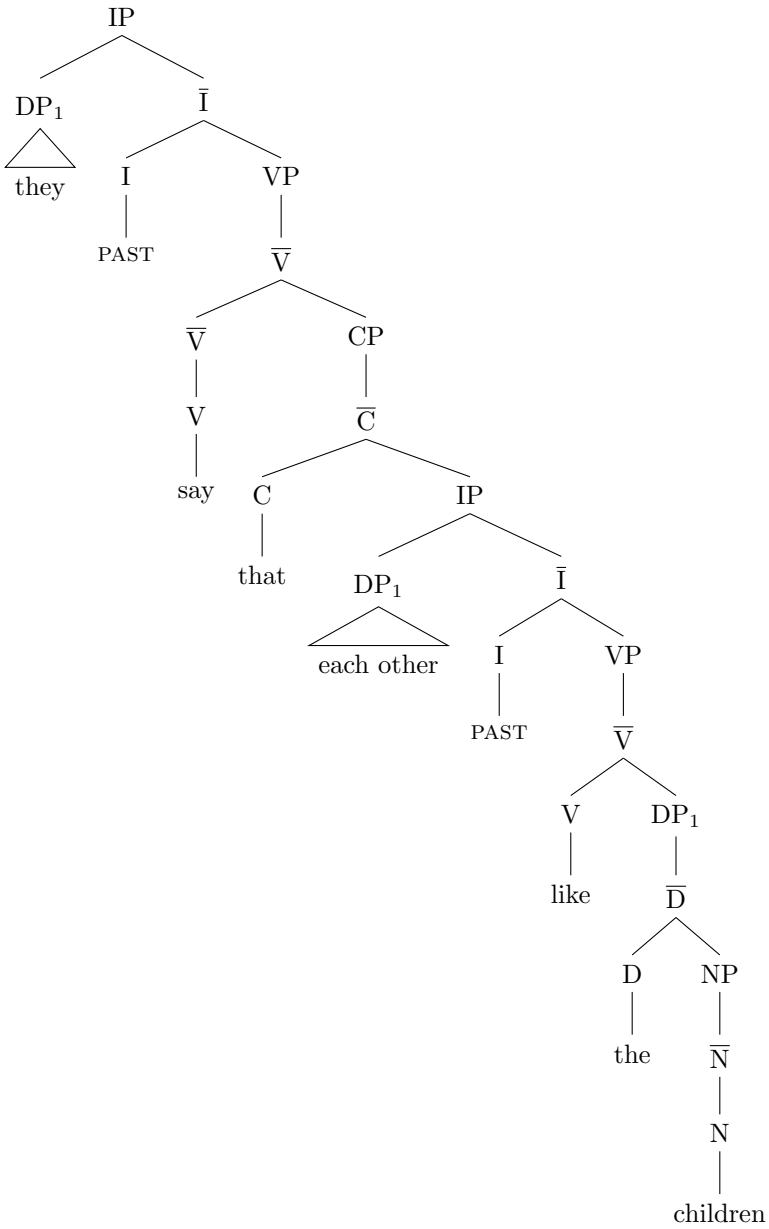
1 Part 1

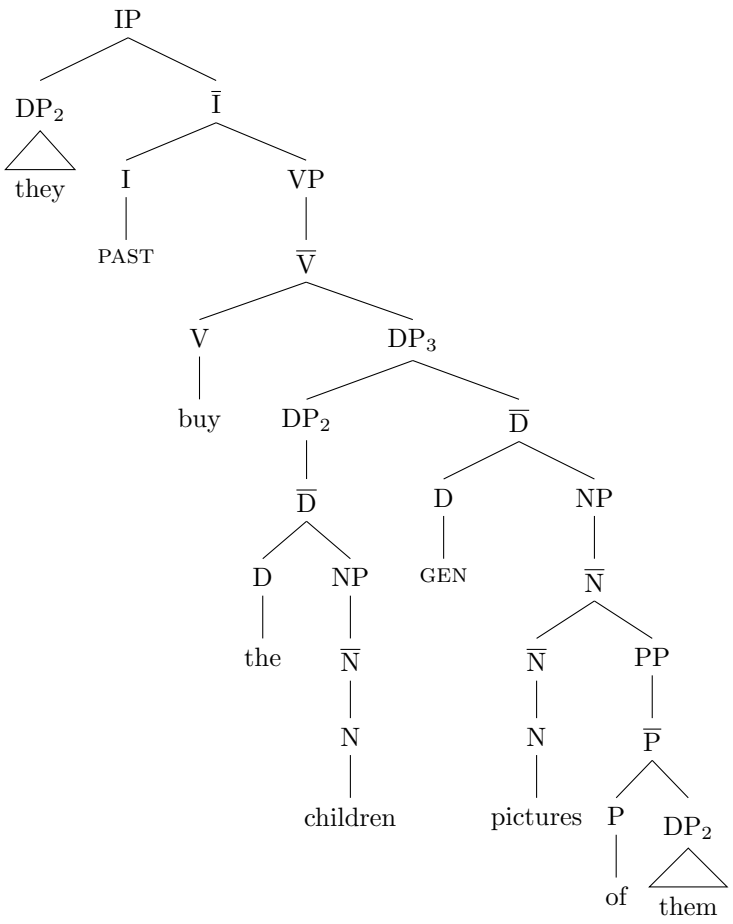
1.1 They$_1$ said that each other$_1$ liked the children$_1$.



I am confused. Based on our current binding theory, I believe that the binding domain of 'each other' should be the larger IP. However, this produces the result that it is ok for 'each other' to be bound by 'they.' This doesn't seem right. I cannot imagine a grammatical sentence starting with "They said that each other..." Moreover, if we replace 'each other' with a second 'they,' we get a grammatical result: "They said that they..." This is the result we would expect if the binding domain of the specifier of the embedded IP (whether it be 'each other' or 'they') is not the larger IP. I might suggest a solution like adding a rule that says CPs can also be potential binding domains (even without anything in their specifier positions), but that would not explain examples like: "They prefer for each other to be happy.' In this case, we see that the reciprocal can happily co-index with 'they.' Compare this to "They said that each other are happy." I must admit that I am at a loss to explain this behavior.

A more clear case of binding theory violation is that this index assignment violates Principal C, because the r-expression 'the children' is bound by 'each other.'

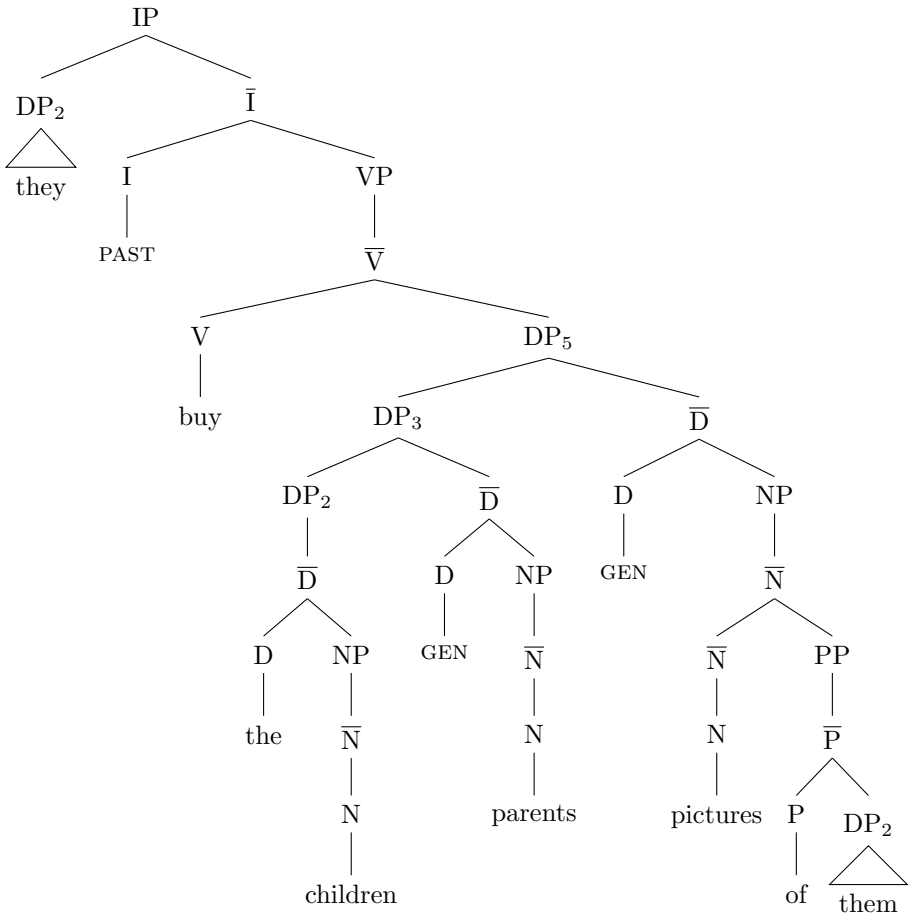
1.2 They$_2$ bought [the children$_2$'s pictures of them$_2$]$_3$.



The r-expression 'the children' is bound by 'they.' This violates Principal C.
Also, 'them' is bound by 'the children,' which is inside 'them's binding domain. This violates Principal B.

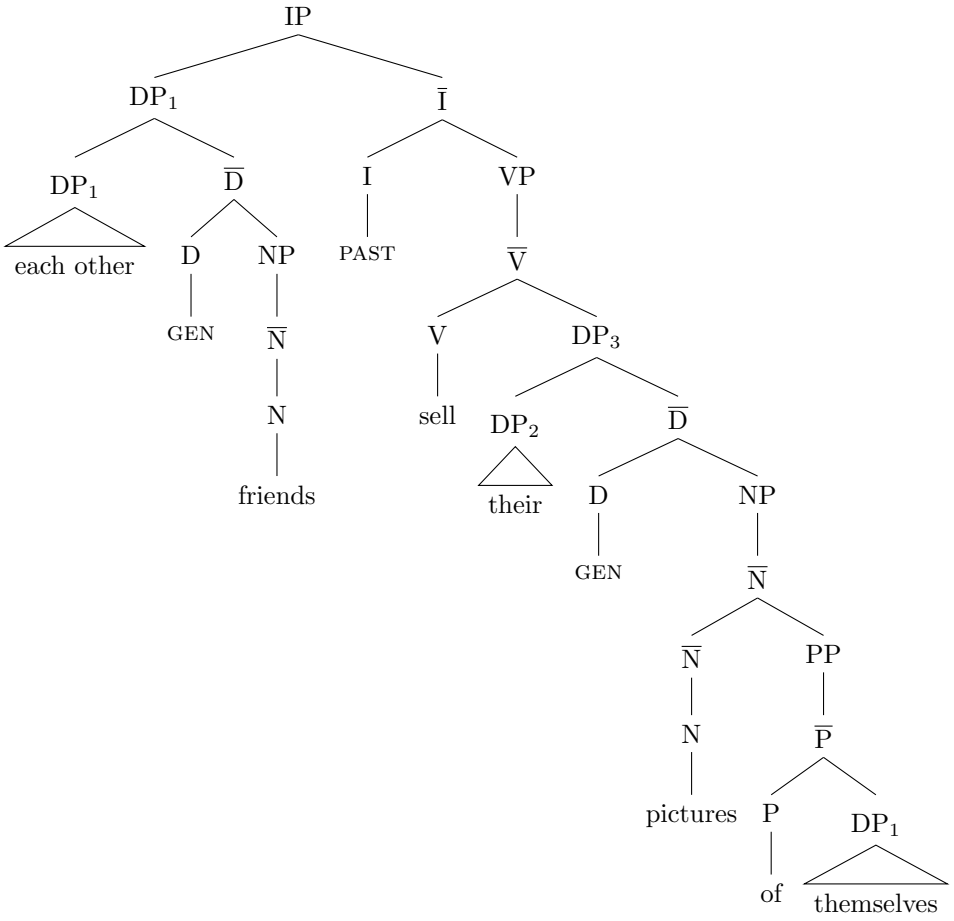
1.3 They$_2$ bought [the children$_2$'s parent's$_3$ pictures of them$_2$]$_5$.

For this parse I am assuming that in the original problem 'parents' was intended to be possessive. Otherwise this sentence has failed long before we get to the stage of binding theory, and drawing a parse of the kind suggested by the brackets makes no sense.



The r-expression ‘the children’ is bound by ‘they.’ This violates Principal C.

1.4 Each other$_1$'s friends$_1$ sold [their$_2$ pictures of themselves$_1$]$_3$.

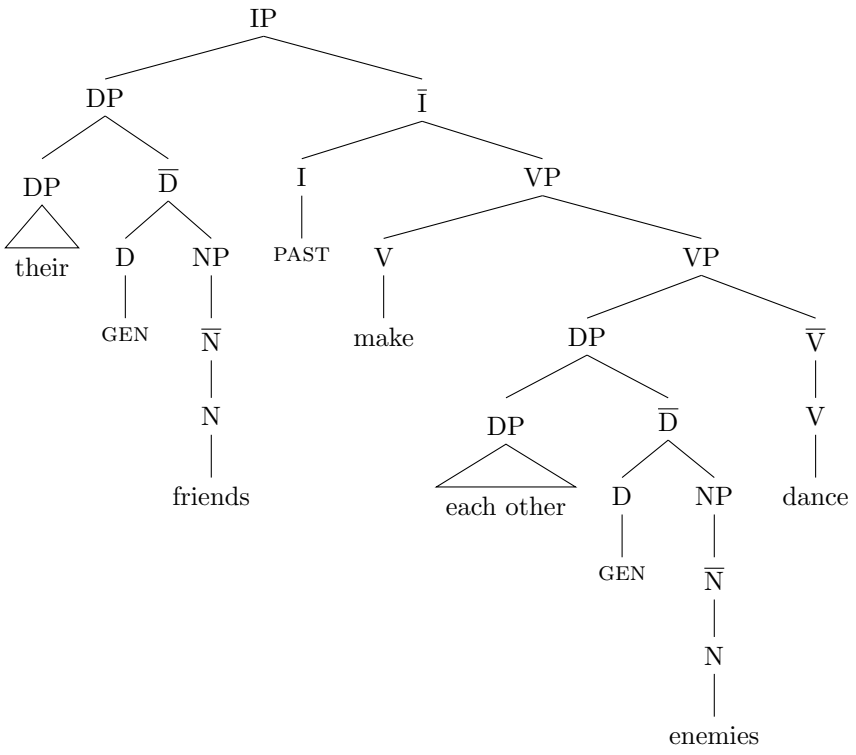


'Each other' is not bound by anything (in or outside of its binding domain). This violates Principal A.

Also, 'themselves' is not bound by anything inside its binding domain. Its binding domain is the smallest phrase with something else in the specifier position, which in this case means the whole DP 'their pictures of themselves.' The only thing binding 'themselves' is 'each other's friends,' which is outside the binding domain of 'themselves.'

2 Part 2

2.1 Their friends made each other's enemies dance.



2.2 Which of the indexing patterns are grammatical?

I think only index assignment (c) is grammatical. Assignment (a) would make 'their' and 'their friends' have the same referent, which makes no sense. Assignment (b) would have 'their,' 'each other,' *and* 'each other's enemies' all share the same referent, which makes even less sense.

2.3 Which of the indexing patterns does the Binding Theory rule out, and how?

(a) 'Each other' is similarly in violation of Principal A because the thing binding it is not inside its binding domain (the small clause VP).

(b) 'Each other' still not bound by anything inside its binding domain.

(c) 'Each other' *still* not bound by anything inside its binding domain.

2.4 Where does the Binding Theory fail, and why?

In this case, it is clear that the Binding Theory does not properly handle DPs embedded inside specifiers. We can see this in index assignment (c), which should be grammatical – but Principal A prevents our Binding Theory from properly predicting this. Even if we were to fix this problem, say, by altering our definition of binding domains to something like:

α's binding domain is the smallest phrase containing something in its specifier position which is neither α nor contains α.

This might very well fail in other cases. I cannot think of any off the top of my head. More importantly, it will leave another hole in our theory. If we make this alteration, index assignment (a) will now be allowed. This is incorrect, as we can clearly see that (a) is ungrammatical. Our Binding Theory as of now has no way to explain why two nested DPs cannot be co-indexed (as in the case of 'each other' and 'each other's enemies'), at least when they are in a specifier position.