

November 11, 2005

## CLASS 19: BINDING THEORY

We are starting a new "module" of the grammar that is commonly referred to as "Binding Theory"

### GOVERNMENT AND CASE ASSIGNMENT

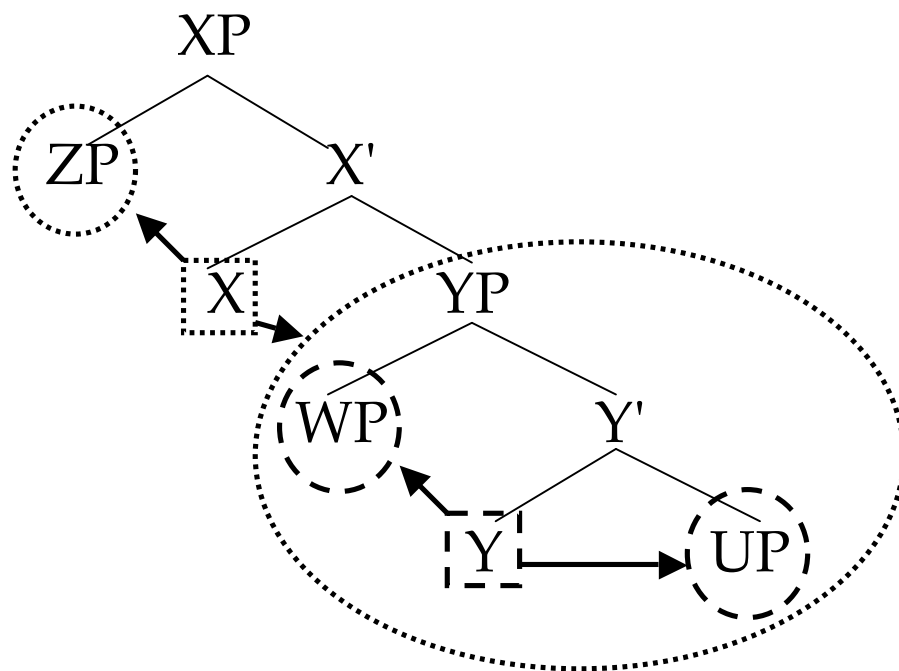
**Case Assignment:**  $\alpha$  assigns Case to  $\beta$  iff

- (i)  $\alpha$  is a Case assignor (i.e., V, finite I, or P), and
- (ii)  $\alpha$  governs  $\beta$ .

**Government:** An element  $X$  governs an element  $Y$  (or, equivalently,  $X$  is a governor of  $Y$ ) iff

- (i)  $X$  is a head, and
- (ii)  $X$  m-commands  $Y$ , and
- (iii) no barrier intervenes (where any maximal projection except infinitival IP is a barrier.)

**m-command:** A node  $\alpha$  m-commands a node  $\beta$  iff the first maximal projection dominating  $\alpha$  dominates  $\beta$ , and  $\beta$  does not dominate  $\alpha$



### What does X m-command?

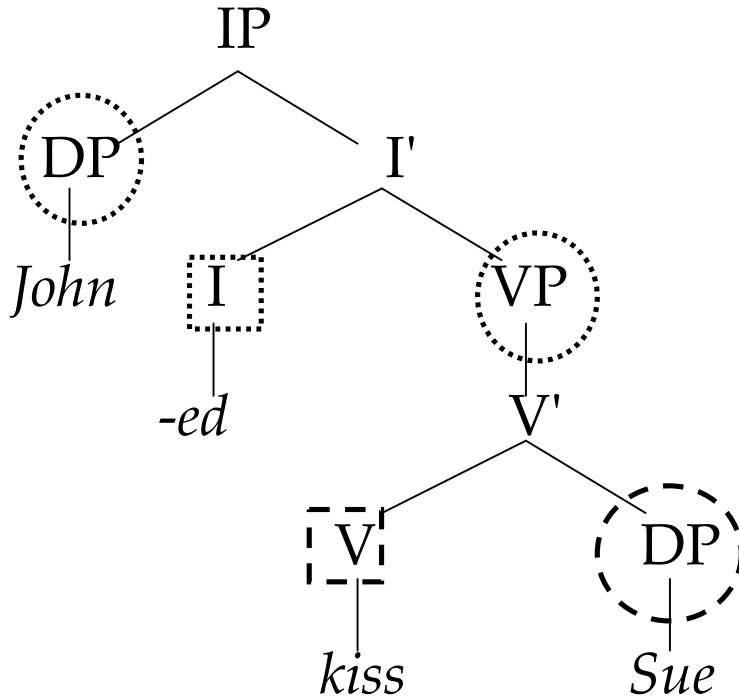
- the first maximal projection dominating X is XP
- X m-commands everything that XP dominates, except for X' (because X' dominates X)

### What does Y m-command?

- the first maximal projection dominating Y is YP
- Y m-commands everything that YP dominates, except for Y' (because Y' dominates Y)

*Notice that a head will always m-command its specifier and complement positions.*

## What do I and V govern in the tree below?

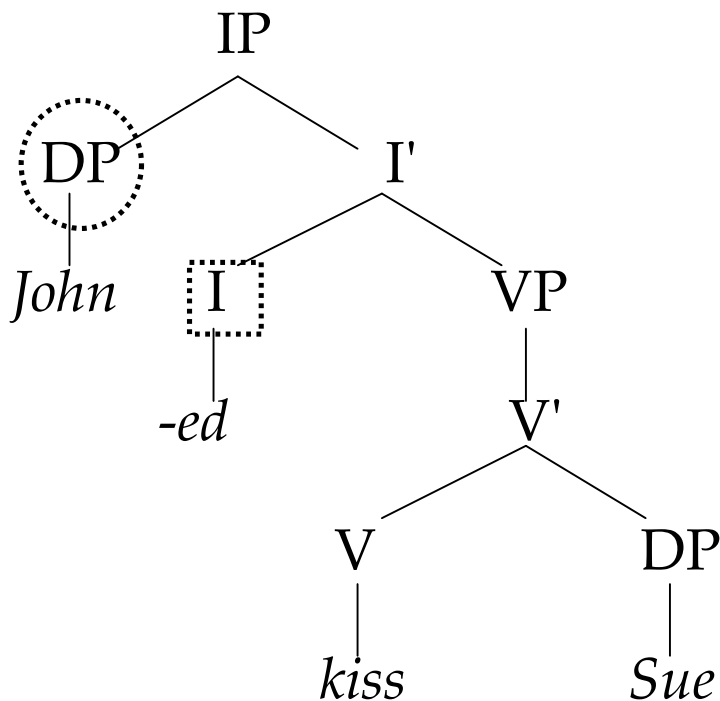


I m-commands V, but it doesn't govern V — VP is a barrier between I and V. In fact, VP prevents I from governing everything below VP.

V assigns case to the direct object, but it cannot assign case to the subject because it does not govern the subject.

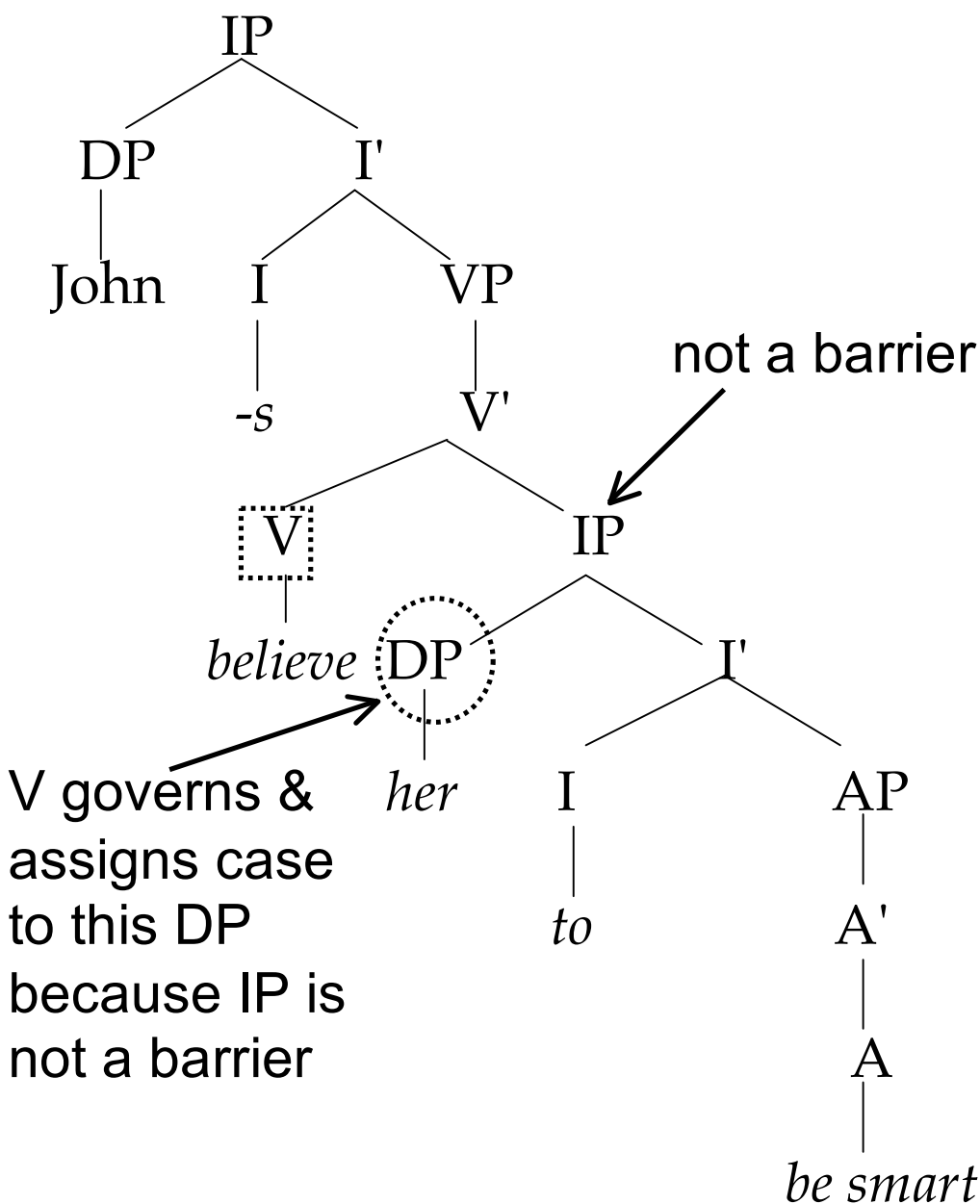
*DP, VP and IP don't govern anything because they aren't heads.*

Infl assigns case to the Spec of IP because it governs this position, but it does not assign case to the direct object because it does not govern the direct object (VP is a barrier.)



Recall from our definition of government that a barrier is any *XP* *except infinitival IP*. Why do we need this exception?

ANSWER: Exceptional Case Marking (ECM)



## BINDING THEORY

**Principle A:** An anaphor must be bound in its governing category.

**Principle B:** A pronoun must be free in its governing category.

**Principle C:** An R-expression must be free.

[free = not bound]

(Sometimes these are referred to as *Condition A*, *Condition B* and *Condition C*.)

**Binding:** X binds Y iff

- (i) X c-commands Y, and
- (ii) X is coindexed with Y.

**Governing category (GC):** The governing category for an element Y is the minimal IP containing

- (i) the element Y, and
- (ii) a governor for Y.

**PRINCIPLE A: AN ANAPHOR MUST BE BOUND  
IN ITS GOVERNING CATEGORY**

---

Principle A regulates the use of anaphors.

**Anaphors:**

- *myself, yourself, himself, herself, itself, oneself*
- *ourselves, yourselves, themselves*
- *each other, one another*

**Binding:** X binds Y iff

- (i) X c-commands Y, and
- (ii) X is coindexed with Y.

**Governing Category (GC):** The governing category for an element Y is the minimal IP containing

- (i) the element Y, and
- (ii) a governor for Y.

- 1) John<sub>i</sub> likes himself<sub>i</sub>.
- 2) \*Himself<sub>i</sub> likes John<sub>i</sub>.
- 3) \*John<sub>i</sub>'s mother likes himself<sub>i</sub>.

First, let's rule out the unacceptable examples...

2) \*Himself<sub>i</sub> likes John<sub>i</sub>.

\*[<sub>IP</sub> Himself<sub>i</sub> [<sub>VP</sub> likes John<sub>i</sub>]]

Principle A is violated because *himself* is not bound.

- To be bound, an anaphor must be c-commanded by its binder.

3) \*John<sub>i</sub>'s mother likes himself<sub>i</sub>.

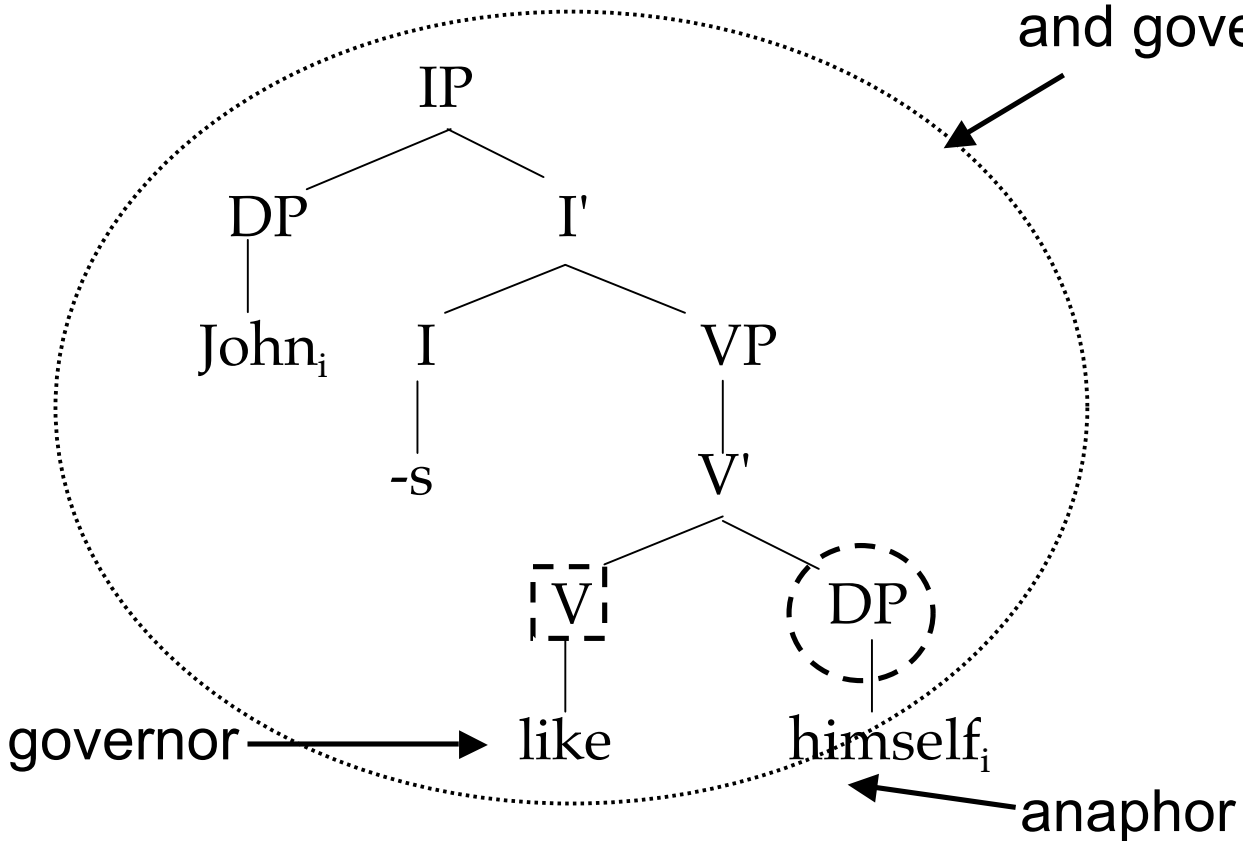
\*[<sub>IP</sub> [[John<sub>i</sub>'s] mother] [<sub>VP</sub> likes himself<sub>i</sub>]]

Principle A is violated because *himself* is not bound.

- To be bound, an anaphor must be c-commanded by its binder.

1) John<sub>i</sub> likes himself<sub>i</sub>.

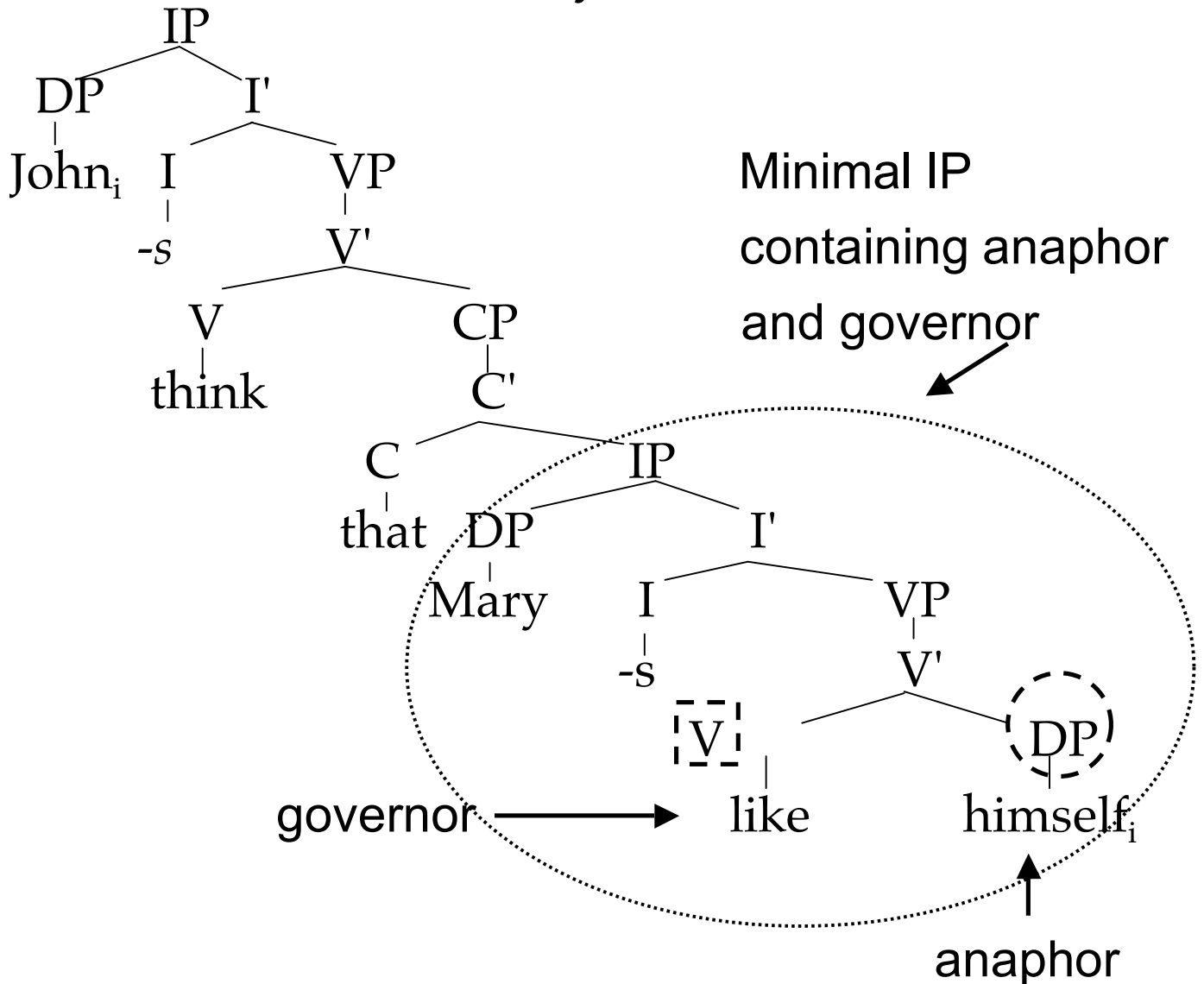
Minimal IP containing anaphor and governor



Principle A is satisfied because *himself* is bound inside its governing category:

- *John* and *himself* are coindexed
- *John* c-commands *himself*
- *John* is inside governing category of *himself*

4) \*John<sub>i</sub> thinks that Mary likes himself<sub>i</sub>.



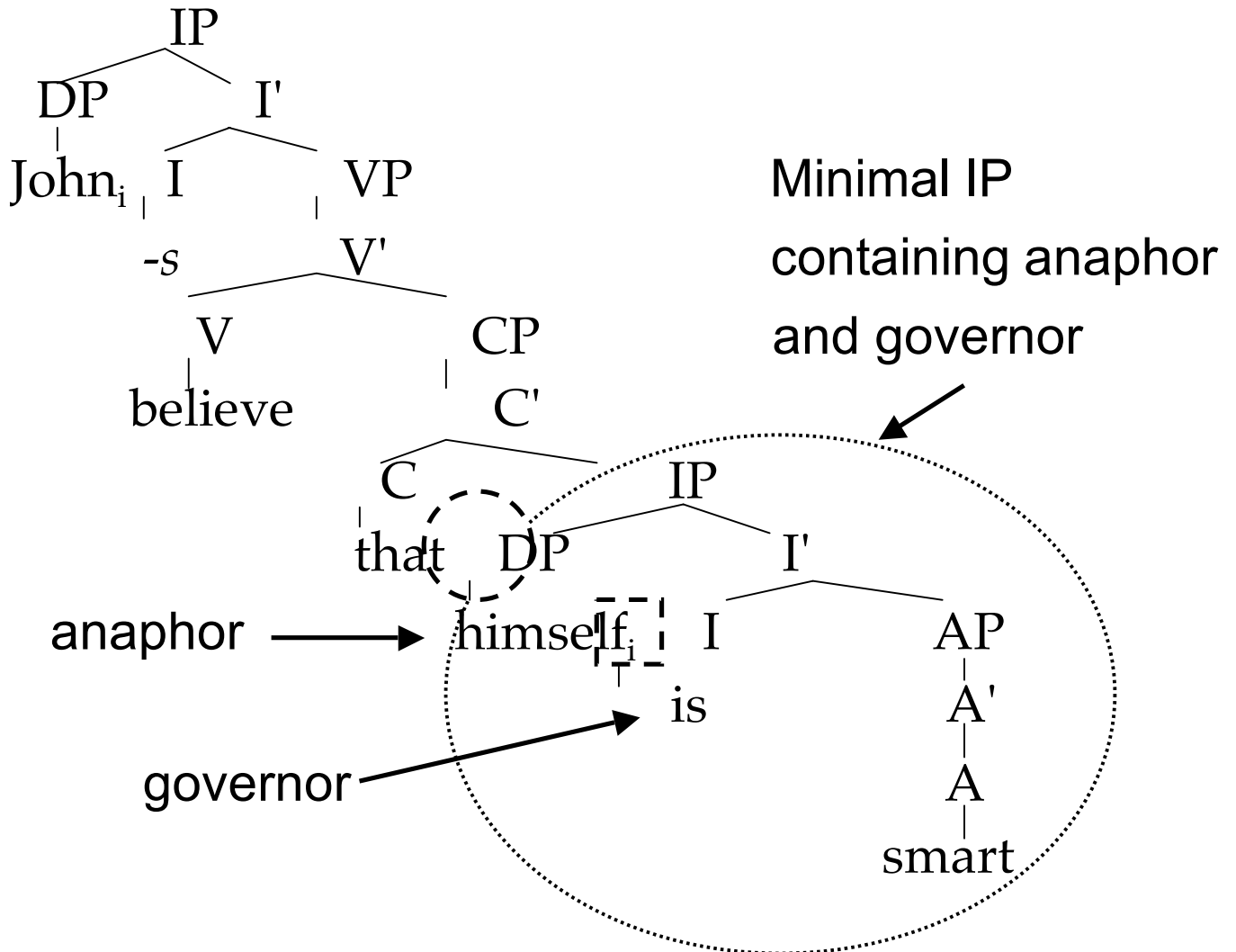
Principle A is NOT satisfied:

- *John* and *himself* are coindexed
- *John* c-commands *himself*

but:

*John* is NOT inside governing category of *himself*

5) \*John<sub>i</sub> believes that himself<sub>i</sub> is smart.



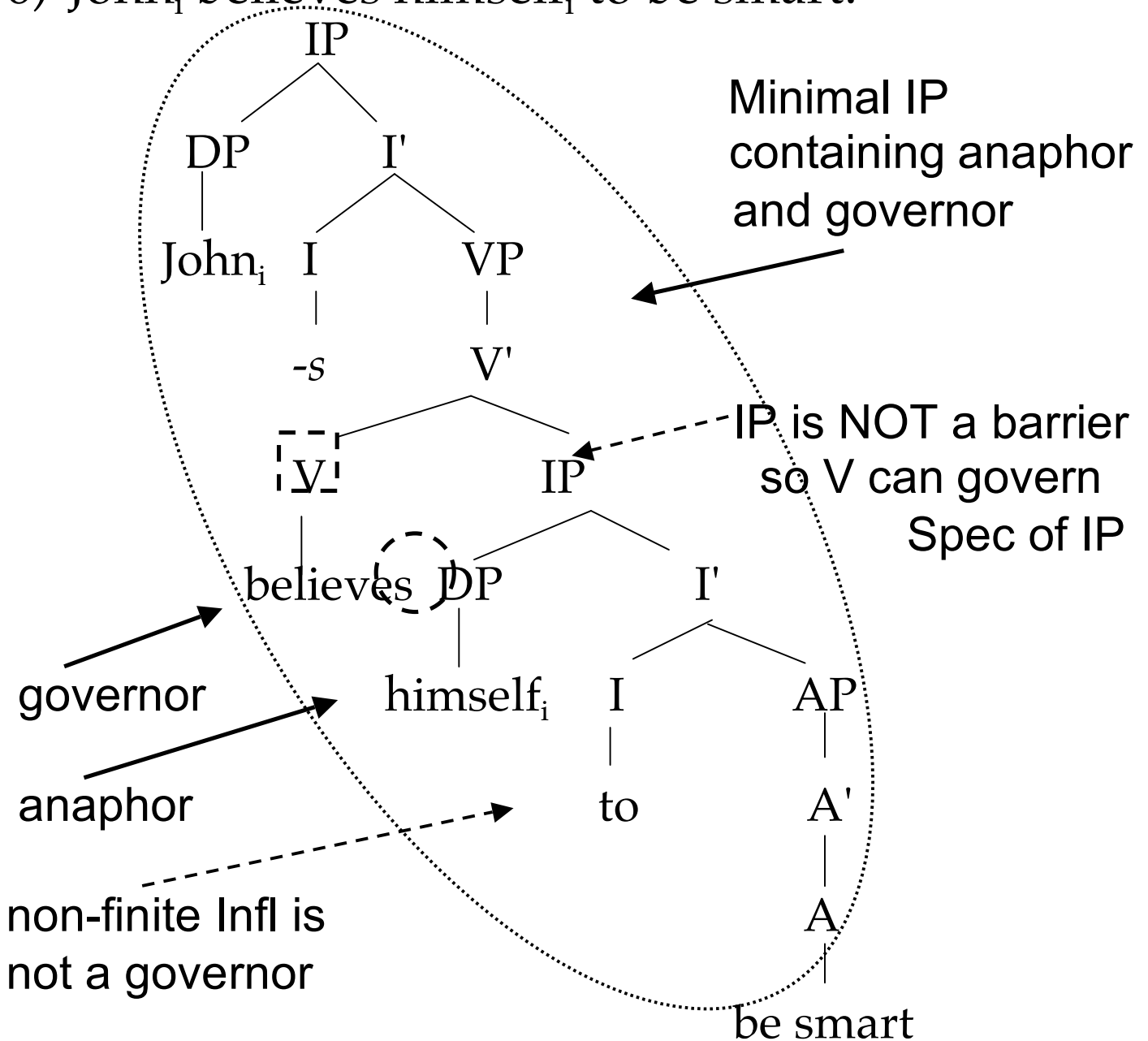
Principle A is NOT satisfied:

- *John* and *himself* are coindexed
- *John* c-commands *himself*

but:

*John* is NOT inside governing category of *himself*

6) John<sub>i</sub> believes himself<sub>i</sub> to be smart.



Principle A is satisfied:

- *John* and *himself* are coindexed
- *John* c-commands *himself*
- *John* is inside governing category of *himself*

**PRINCIPLE A:** AN ANAPHOR MUST BE BOUND  
IN ITS GOVERNING CATEGORY.

**PRINCIPLE A:** A PRONOUN MUST BE FREE  
IN ITS GOVERNING CATEGORY.

Principles A and B predict that anaphors and pronouns are found in complementary distribution.

- 7) a. John<sub>j</sub> likes **himself**<sub>j</sub>.  
b. \* John<sub>j</sub> likes **him**<sub>j</sub>.
- 8) a. \* John<sub>j</sub> likes **himself**<sub>m</sub>.  
b. John<sub>j</sub> likes **him**<sub>m</sub>.
- 9) a. \* **Himself** likes John.  
b. **He** likes John.
- 10) a. \* John<sub>j</sub> thinks that Mary likes **himself**<sub>j</sub>.  
b. John<sub>j</sub> thinks that Mary likes **him**<sub>j</sub>.
- 11) a. \* John<sub>j</sub>'s mother likes **himself**<sub>j</sub>.  
b. John<sub>j</sub>'s mother likes **him**<sub>j</sub>.
- 12) a. John<sub>j</sub> believes **himself**<sub>j</sub> to be smart.  
b. \* John<sub>j</sub> believes **him**<sub>j</sub> to be smart.
- 13) a. \* John<sub>j</sub> believes that **himself**<sub>j</sub> is smart.  
b. John<sub>j</sub> believes that **he**<sub>j</sub> is smart.

**N.B.** Principle B does not require that a pronoun have a linguistic antecedent; merely that if a pronoun has one, then it can't be too close (within the same GC).

- *Discourse antecedent*  
I saw John<sub>i</sub>. **He<sub>i</sub>** is doing fine.
- *Contextual antecedent*  
<pointing at a guy> I know **him<sub>i</sub>**.

*Finally, we can account for the fact that the distribution of R-expressions is different from the distribution of pronouns and anaphors:*

**PRINCIPLE C:** AN R-EXPRESSION MUST BE FREE.

Principle C has no locality restriction on it at all.

- 14) a. \* John<sub>j</sub> thinks that Mary likes **John<sub>j</sub>**.  
b. John<sub>j</sub> thinks that Mary likes **him<sub>j</sub>**.
- 15) a. \* John<sub>j</sub> likes **John<sub>j</sub>**.  
b. John<sub>j</sub> likes **himself<sub>j</sub>**.