Binding

# Introduction

## binding theory grew out of work in the 1970 that attempted to account for the distribution of personal and reflexive pronouns

John likes John

John thinks Mary likes John

## Sentences like this cannot surface with the requirement that the two Johns refer to the same person

## A transformation replaces the second instance with a pronoun

## but a different pronoun is used in each case:

John likes himself

John thinks Mary likes him

## the first guess was that when the two coreferential noun phrases are in the same clause we use the reflexive and when they are in different clauses we use the personal pronoun

## But there are observations which disrupt this simple view

[John’s mother likes him]

[John saw Mary’s picture of him]

John expects [himself to win]

John thinks [a picture of himself was in the newspaper]

# binding theory

## Within the 1980s theoretical framework (Government and Binding) the things transformations could do had been limited to movement

### so the view that pronouns are replacements for coreferential noun phrases had been abandoned

### a new theory of pronoun distribution was needed

## Binding theory assumed separate principles governing the referential properties of pronouns

### it made use of two notions

#### binding

##### a structural relationship between two coreferential phrases

#### governing category

##### a structurally defined domain within which the binding principles applied

## Binding

### indexation

#### indexes were assigned to structurally represent referential properties

##### coindexation = co-reference

##### disjoint indexation = disjoint reference

###### cannot handle inclusive or overlapping reference

we like me

they like them

##### indexes are not references (a semantic notion not syntactic)

###### they are the syntactic representation which is *interpreted* as referential phenomena

i.e. like constituent structure has semantic consequences

##### thus

###### two coindexed elements are interpreted as coreferential

###### two disjointly indexed element are interpreted as having disjoint reference

#### it was assumed that indexing is done freely and the principles of the binding theory would rule out those indexations which were ungrammatical

### c-command

#### A c-commands B iff the first branching node dominating A also dominates B

### A binds B iff

#### A and B are coindexed

#### A c-commands B

## Governing Category

### From the 1970s two things had become clear

#### the domain in which reflexives were used contained a subject:

##### clauses

###### John likes himself

###### \* John thinks Mary likes himself

##### noun phrases with possessors

###### John saw a picture of himself

###### \* John saw Mary’s picture of himself

##### Possessors had been taken as the subject of the noun phrase since the 60s

#### a non-finite clause of which the reflexive was a subject did not count as the relevant domain

##### John wanted himself to win

##### \* John wanted Mary to like himself

##### \* John thinks himself is smart

### Government and binding theory recognised this position as different to the other as the Case assignor stands outside this clause

#### John **expected** [himself to win]

#### John wanted [Mary to **like** himself]

#### John thinks [himself **is** smart]

### *As Case is assigned by a governor, it seems that it is the presence of a governor that defines the relevant domain*

### *The governing category of A, a pronoun, is the smallest category with a subject which contains A and the governor of A*

## Principle A

### *an anaphor (reflexive pronoun) must be bound within its governing category*

# Principle B

### *a pronominal (personal pronoun) must be free (not bound) within its governing category*

# Extensions to Binding theory

## this theory accounts for most of the data except

### *John expects a picture of himself to be on sale*

#### problem

##### here the anaphor is governed by of which is inside the non-finite clause

##### this clause has a subject

##### so it should be the governing category and the anaphor should be ungrammatical

#### solution

##### suppose the subject of the clause does not count for defining the governing category because it contains the anaphor

##### no pronoun can refer to a phrase which contains it

*\* a picture of it/itself*

##### to be a relevant subject to define the governing category for a pronoun, the subject must be ‘accessible’ to the pronoun (be a ‘possible’ binder)

##### the governing category of A is the smallest category with an accessible subject which contains A and the governing of A

### *John thinks himself is rich*

#### problem

##### is a subject accessible to itself?

##### the following would suggest not

*they like [each other’s friends]*

##### this noun phrase contains a subject and the governor of the anaphor and so it should be the governing category

###### *but then the anaphor should not be able to refer to the subject of the clause*

##### if this is so, then the subject of a finite clause should be able to refer to the next highest subject, but it can’t

#### solution

##### we have to suppose that there is another subject inside the finite clause which can act as the defining element for the governing category

##### finite clauses have finite inflections, which other constructions (non-finite clauses, noun phrases) do not

##### suppose we define a concept SUBJECT as the most prominent nominal element in the clause

###### *subjects are prominent nominal elements*

###### *the finite inflection is ‘nominal’ in that it contains agreement features (person, number, gender)*

###### *so for a non-finite clause the subject is the SUBJECT and for the finite clause the inflection is the SUBECT*

##### the governing category for A is the smallest category with an accessible SUBJECT which contains A and the governor of A

##### The inflection is ‘accessible’ to the subject because the subject and the inflection are coindexed to show that they agree with each other(!)

##### Hence the smallest category with an accessible SUBJECT for a pronoun in the subject position of a finite clause is that finite clause

### *John thinks [a picture of himself is in the paper]*

#### problem

##### why is the inflection not accessible to the anaphor in this case?

#### solution

##### as the subject is coindexed with the inflection, if the anaphor were to be coindexed with the inflection is would be coreferential with the phrase that contains it

# Reflexivity

## In response to these problems Reinhart and Reuland proposed a new theory based on the idea that reflexive verbs are often marked morphologically in certain languages

Leyla yika-n-di (Turkish)
Leyla wash-refl-past

## Their theory is based on two main ideas

### *a reflexive verb is a KIND of verb (like a transitive or a passive one)*

#### it is defined as a verb which has at least two coindexed arguments

### *reflexive verbs are MARKED as such by a morpheme (in the same way that a passive verb is marked by the passive morpheme)*

## they identify three sub-types of reflexive verb

### *inherently reflexive verbs*

#### these are verbs with an inherent reflexive meaning

##### these are not usually morphologically marked

##### they are either always reflexive

John perjured himself/\*Bill

##### or they can be non-reflexive, but are interpreted as reflexive in the absence of a conflicting object

John washed (himself)

John washed the floor

### those whose reflexivity is marked by a morpheme attached to the verb

yikandi Turkish = wash-refl

mosakodik Hungarian = wash-reflexive

idegeskedik Hungarian = worry-reflexive

self-distruct

### those whose reflexivity is marked by a morpheme on one of the coindexed arguments

hit him-self, know her-self, etc.

## from this point of view, reflexive pronouns are not pronouns with special reference, they are pronouns which carry a morpheme associated with the verb

# Principles

## Principle A

### a reflexive marked verb must be reflexive

\* John saw herself

\* John thinks Mary likes himself

## Principle B

### a reflexive verb must be reflexive marked

John1 saw him2

\* John1 saw him1

John1 thinks Mary likes him1

# Advantages over the binding theory

## this is much simpler

## it makes very straightforward predictions about where to expect reflexive markers to appear which follow from natural aspects of language

### the binding theory is less natural as it requires the definition of binding and governing category which are hardly natural

## it relates the use of reflexive pronouns to other reflexive morphemes which binding has nothing to say about

# Issues

## Non-complementary reflexives

### many of the cases that binding theory struggled to include are not treatable under reflexivity because they do not involve a reflexive verb

### interestingly most of these cases do not involve complementary distribution between reflexive and personal pronouns

John saw a picture of himself/him

John expects a picture of himself/him to be in the papers

John thinks that a picture of himself/him is in the papers

### this is problematic for the binding theory which would predict complete complementary distribution between pronominals and anaphors, but cannot dismiss this data because it involves these types of pronouns

### this data can be more easily dismissed under reflexivity precisely because it does not involve reflexive verbs

### moreover, there are clearly uses of ‘reflexive pronouns’ which have nothing to do with reflexive marking (or indeed binding) – these are also cases where there is no complementary distribution between reflexive and personal pronouns

everyone apart from myself/me was from Bangladesh

as for myself/me, I like garlic

Bill and myself/me were invited to the palace

people like yourself need shooting

### Reinhart and Reuland suggest that these pronouns serve a completely separate function and are not reflexive at all

#### therefore they do not enter into the notion of reflexivity and are irrelevant for their observations (binding theory could hardly make such a statement)

#### they claim that the pronouns in these cases mark ‘point of view’ and are ‘logophoric’ in nature rather than reflexive

Kofi be  yɛ-dzo Ewe (Gbe language Ghana/Togo)

Kofi said s/he (Kofi) left

Kofi be  e-dzo

Kofi said s/he (someone else) left

## The role of c-command

### reflexivity would predict the following to be grammatical

himself saw Bill

### in binding theory this is ungrammatical because the anaphor is not c-commanded

### c-command is not part of reflexivity theory

### however, R&R claim that this is due to another part of grammar which deals with coreferential elements = chain theory

### a set of coreferential elements form a chain

X1 ... Y1 ... Z1 ... = a chain

### the head of the chain is always the full referential element

John1 ... him1 \* him1 ... John1

John1 ... himself1 \* himself1 ... John1

John1 ... t1 \* t1 ... John1

### each link of the chain c-commands the next

### so it follows that the reflexive marked argument must be a pronoun and must be c-commanded by the antecedent

## the main problem

John expects himself to win

### this does not seem to be a use of the logophoric pronoun as it is in complementary distribution with personal pronouns

\* John1 expects him1 to win

### but it does not seem to involve a reflexive verb as the two coindexed arguments belong to different predicates

### R&R claim that the subject of an infinitive clause is a ‘syntactic’ argument of the governing verb as it gets its Case from it

### this is not very explanatory