

Introduction: Known Exceptions to Principle B

The **distribution of pronouns** is **less restricted** than predicted by Principle B as formulated in Chomsky (1981).

- (1) John lost a picture of him(self).
- (2) Mary put the box down in front of her(self).

Research Question

What is the problem with the simple pattern predicted by Principle B? **Why** doesn't language work like that?

Two Technical Assumptions About Binding

▶ The Uncontroversial Assumption

syntactic binding \neq discourse-binding (Reinhart 1983; Reuland 2001; Safir 2004); I consider **only syntactic binding**.

▶ The Controversial Assumption

There are no indices. Principle B does not rule out specific readings, it only determines for each sentence **if some grammatical bound pronoun reading exists** (cf. Chomsky 1995; Rogers 1998).

For example, (3a) is ungrammatical with respect to syntactic binding because there is no grammatical reading in which both pronouns are syntactically bound.

- (3) a. * Every patient said that I want him to sedate him.
- b. Every patient told some doctor that I want him to sedate him.

Conjecture: Computational Restrictions Limit Binding

- ▶ Ideally, syntactic binding conditions should be computable with the resources that are already available.
- ▶ **Only so-called finite-state constraints can be added** to syntax without increasing its computational requirements (Graf 2011; Kobele 2011).
- ▶ But in order for Principle B to be a finite-state constraint, the following property needs to hold:

Limited Obviation

For every pronoun, the number of DPs from which it is mandatorily disjoint in reference is **finitely bounded**.

Empirical Predictions

- ▶ If **Limited Obviation** holds, only a bounded number of pronouns are regulated by Principle B.
- ▶ Consequently, **Principle B should break down** in all constructions that have the potential to add an **unbounded number of pronouns** to the same binding domain:
 - ▶ Adjuncts
 - ▶ Recursion inside DPs
 - ▶ Coordination

English Data

Adjuncts commonly show no obviation, and the same is true of nested DPs.

- (4) *Adjuncts*
No woman put the box in front of her(self).
- (5) *Recursion inside DPs*
 - a. Every post-modern artist must paint at least one [picture of [him(self) and a picture of him(self)]].
 - b. No client wanted to see a [presentation of [a presentation to him(self)] to him(self)].

Even though possessed picture phrases show obviation, they still do not threaten **Limited Obviation** because they instantiate new binding domains.

- (6) Every woman liked John's picture of her*/?(self).

Coordination is **illicit if the coordinated pronouns are syntactically bound and homophonous**. As a result, only a limited number of bound pronouns can be coordinated.

- (7) *Coordination*
 - a. Every football player told some cheerleader that the coach wants to see (both) him and her in his office.
 - b. * Every football player told his friend that the coach wants to see (both) him and him in his office.
 - c. Every football player told his friend that the coach wants to see (both) him (*deictic*) and him (*deictic*) in his office.

Evaluation of Data

Every configuration that endangers **Limited Obviation**

- ▶ is **blocked** (coordination of homophonous pronouns), or
- ▶ constitutes a **new binding domain** (possessed picture phrases), or
- ▶ is **exempt** from the obviation requirement (certain adjuncts, recursion inside DPs).

However, the **reverse is not necessarily true**. Principle B might be suspended in non-problematic configurations, e.g. local binding in Frisian.

Conclusion

- ▶ Computational considerations suggest that something along the lines of **Limited Obviation** must hold for syntactic binding in natural language.
- ▶ Principle B cannot apply to every pronoun, because this would violate **Limited Obviation**.
- ▶ All constructions that could violate **Limited Obviation** indeed show special behavior.
- ▶ In sum, syntactic binding differs from the neat picture of Chomsky (1981) because this **simple system** is **too computationally demanding**.

References

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