Control Theory

K. Srikumar
Department of Linguistics
University of Lucknow
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Introduction

• Look at the following sentence

1. Sohan claims [that he knows someone in the intelligence department]
• predicates in (1)? **claim** and **know**
• Predictions of Theta Theory:
• Claim:  V; 
  
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP</td>
<td>{NP, CP}</td>
</tr>
</tbody>
</table>
Cont..

• Know: V;  
  1  
  NP  
  2  
  {NP  
     CP  
  }

• 2. Sohan Claims the insurance money
• 3. Sohan knows him
• 4. Sohan knows that he will not rescue him
• Predicates require their arguments realized in sentences with them.
S-Structure

NP
Sohan
  I
    -Past
    V
      claims
        that
          CP
            IP
              NP
                he
            I
              -Past
                V
                  knows
                      NP
                        someone in the intelligence dept.
Invisible Subject

• 5. Sohan claims[ to know someone in the intelligence dept.]
• 6. [ To know someone in the intelligence dept.] is enviable.
• The invisible subject pronoun in infinitives – PRO
• Required to satisfy Theta criterion and also EPP
• It may have specific reference or arbitrary reference
• It is both a pronominal and an anaphor
• When anaphoric, its antecedent is said to be controller and PRO, its controllee
Structural representation

```
NP
  Sohan
  I
    -Past
    V
      claims
      C
        IP
          NP
            ?
              I
                -Tense, -AGR
                V
                  know
                  to
                  NP
                    someone in the intelligence dept.

IP
  I'
  VP
    CP
      IP
```
S-structure

Sohan
   I
   -Past
   V
   claims
   C
   IP
   I'
   VP
   CP
   IP
   I'
   VP
   NP
   PRO
   -Tense, -AGR
   to
   know
   someone in the intelligence dept.
Arguments motivating PRO

• PRO Subject has syntactic presence in the sentence playing a role to explain several facts.

• Binding of Anaphors
• 7. John claims[ PRO to have saved himself from a situation].

• Distribution of together
• 8 a. They claimed [PRO to have reached the station together]
• b. *John claimed [ PRO to have reached the station together]
Control Theory

• The module of grammar dealing with the distribution and interpretation of PRO is known as control theory
Distribution of PRO

9. *Sohan wondered [whether [ PRO to read PRO before his examination]

10. *Sohan wondered [whether[ PRO must read the prescribed textbooks before his examination

11. *John believed [PRO to be honest]

• Replacing ungrammatical instances of PRO with an overt NP makes sentences (6-8) grammatical
PRO must be ungoverned

• Legitimate instances of PRO cannot be substituted with an overt NP.
• Positions where overt NPs occur are Governed and assigned case
• Positions where PRO occur overt NPs are excluded.
• So the assumption: PRO is found in ungoverned positions. And hence not assigned with case.
PRO Theorem

• PRO, a pronominal anaphor
• Hence its feature matrix \( +\text{Pronominal} \)
  \( +\text{Anaphor} \)
• Binding Conditions A and B require quite contradictory requirements on its governing category
• Binding conditions on PRO cannot be met with
• Hence PRO satisfies Binding conditions vacuously: i.e without being governed at all
Types of Control

• Obligatory and optional
• Optional:
  • 12. John told us that it was important [PRO to behave oneself/ourselves]
  • 13. John wondered [how [PRO to behave oneself/himself]]
• Only obligatory
  • 14. John tried [PRO to behave *oneself/himself]
  • 15 John was reluctant [PRO to behave *oneself/himself] (from Haegeman, 1994)
Contd...

• 16. John promised [PRO to behave *oneself/himself]
• 17. John persuaded Bill [PRO to behave *oneself/himself]
• 18. John arrived [PRO pleased with *oneself/himself]

• Types of Obligatory Control:
• Subject & Object Control: Matrix verbs decide
S-structural representation

```
IP
  NP
    Sohan_i
    I
      -Past
      V
        promises/persuades/tells
        NP (Billu_i)
        C
          NP
            PRO_v_j
            I
              I'
              VP
                quit the place soon
                -Tense, -AGR
                to
```
C-Command and Control

- **Obligatory Control**: Controller must C-command its controllee
- Optional Control: C-Command not necessary
- 19 a. [PRO not to behave myself /himself/ oneself] would be wrong.
- b. [PRO to behave myself] would be my pleasure
Only arguments can be Controllers

- Non-arguments cannot be controllers
- 20. There occurred three accidents [without there being any medical help around]
- 21. *There occurred three accidents [without PRO being any medical help around]
- Implicit arguments can control PRO but not omitted arguments (cf. 22 and 24)
- 22. Certain allowances for employees were withdrawn [PRO to tackle the COVID crisis](Controller: Implicit Agent)
- 23. COVID-19 crisis led people[ PRO to lose hope in the almighty]
- 24* COVID-19 crisis led [PRO to lose hope in the govt.](Controller: Omitted argument)
References

