Two kinds of copular clauses

(1) Ingrid Bergman is the lead actress in that movie. \[\text{Predicational}\]
(2) The lead actress in that movie is Ingrid Bergman. \[\text{Specificational}\]

Conclusions from Part I

(3) \begin{tabular}{lll}
\textbf{Predicational clause} & \textbf{Ingrid Bergman} & \textbf{is} & \textbf{the lead actress} \\
subject & & predicate complement \\
\end{tabular}

\begin{tabular}{lll}
\textbf{Semantic ingredients} & \textbf{referential DP} & \textbf{predicative XP} \\
subject & & predicate complement \\
\end{tabular}

\begin{tabular}{lll}
\textbf{Specificational clause} & \textbf{The lead actress} & \textbf{is} & \textbf{Ingrid Bergman} \\
\textbf{topic} & & \textbf{focus} \\
\end{tabular}

Predicational and specificational clauses:

- are both subject-initial clauses.
- both involve one predicative and one referential XP, but
- differ in how the two XPs are aligned with (surface) syntactic positions.
- truth-conditionally equivalent (allosentences in Lambrecht’s (1994) sense).
- differ in information structure: free (predicational) vs. fixed (specificational).
- The notion of topic involve, as part of its content, Discourse-familiarity (Prince 1992).
- Hence, a specificational clause can be seen as an inversion of its predicational counterpart, whose discourse function is to have Discourse-old information appear before Discourse-new information.

Intuition

- the fact that the subject of a specificational clause is always topic is intimately related to the fact that the subject DP is less referential than the post-copular DP.
The idea in outline

- Other things being equal the most referential DP occupies the subject position. This is the case in predicational copular clauses.
- But the preference for the topic to be in subject position (Prince (1981), Beaver (2004)) may override this default alignment. The result is a specificational clause.
- The reason the subject of a specificational clause is always topic is that this is precondition for getting a specificational clause at all!

Goals of this talk

1. develop an analysis of predicational and specificational clauses based on this idea using Minimalist assumptions
2. discuss some theoretical questions raised by the analysis
3. discuss some empirical implications and questions for further research

1 Towards a Minimalist analysis

1.1 Pre-minimalist inspiration for analysis (Moro 1997)

- Predicational and specificational clauses involve the same deep structure
- one where the copula takes a small clause complement

\[
\text{(4) IP} \\
\text{\hspace{1cm} P'} \\
\text{\hspace{2cm} I} \\
\text{\hspace{3cm} VP} \\
\text{\hspace{4cm} V} \\
\text{\hspace{5cm} \text{be}} \\
\text{\hspace{6cm} DP_{ref}} \\
\text{\hspace{7cm} Ingrid Bergman} \\
\text{\hspace{6cm} DP_{pred}} \\
\text{\hspace{7cm} the lead actress} \\
\text{\hspace{4cm} SC} \\
\text{\hspace{3cm} VP} \\
\text{\hspace{2cm} I} \\
\text{\hspace{1cm} IP} \\
\text{\hspace{0cm} \text{is}} \\
\text{\hspace{1cm} V} \\
\text{\hspace{2cm} \text{tk}} \\
\text{\hspace{3cm} DP_{ref}} \\
\text{\hspace{4cm} Ingrid Bergman} \\
\text{\hspace{3cm} DP_{pred}} \\
\text{\hspace{4cm} the lead actress} \\
\text{\hspace{2cm} SC} \\
\text{\hspace{1cm} VP} \\
\text{\hspace{0cm} I} \\
\text{\hspace{0cm} IP} \]

- be raises to I:
• DP_{ref} raises to Spec-IP → Predicational clause:

\[(6)\]

\[
\begin{array}{c}
\text{IP} \\
\text{DP}_{\text{ref}} \\
\text{Ingrid Bergman} \\
\text{I} \\
\text{VP} \\
\text{is}_k \\
\text{V} \\
\text{SC} \\
\text{t}_k \\
\text{DP}_{\text{pred}} \\
\text{the lead actress}
\end{array}
\]

• DP_{pred} raises to Spec-IP → specificational clause!

\[(7)\]

\[
\begin{array}{c}
\text{IP} \\
\text{DP}_{\text{pred}} \\
\text{the lead actress} \\
\text{I} \\
\text{VP} \\
\text{is}_k \\
\text{V} \\
\text{SC} \\
\text{t}_k \\
\text{DP}_{\text{ref}} \\
\text{t}_{\text{pred}} \\
\text{Ingrid Bergman}
\end{array}
\]

Shortcomings

• Unclear how to understand the internal structure of SC
  
  – doesn’t seem to be headed
  
  – are the two DPs equally prominent (mutual c-command)?
  
  – what determines which DP raises to subject position?

• How to integrate information structure, in particular the generalization that we only get a specificational clause when DP_{pred} is topic
1.2 A crash course in Minimalism

Note I am simplifying various aspects in the quest for clarity.

- The syntactic derivation starts from a set of lexical items drawn from the lexicon.

- This set is called ‘the Numeration’:
  \[
  \text{Numeration}_{144} = \{ \text{he, live, may, in, a, shoebox} \}
  \]

- The lexical items are feature bundles:
  \[
  \begin{align*}
  \text{he} & : [D, 3, \text{sg, masc}] \\
  \text{live} & : [V, uD, uP] \\
  \text{may} & : [T, \text{pres, uV, } uD^*] \\
  \text{in} & : [P, uD] \\
  \text{a} & : [D, uN, 3, \text{sg}] \\
  \text{shoebox} & : [N]
  \end{align*}
  \]

- Some features are interpretable (‘what I am’), some uninterpretable (‘what I need’) — the latter are written \( uF \).

- Syntactic structures are assembled by the operations Merge and Adjoin:

\[
\begin{align*}
(8) & \quad \text{Merge } a \text{ and shoebox to form DP } a \text{ shoebox}: \\
& \quad \text{DP} \\
& \quad a[D, \underline{uN}] \quad \text{shoebox}[N]
\end{align*}
\]

- Merge checks \( uN \) on \( a \) (written \( u\underline{N} \)).

- \( a \) is the head and projects its category to the mother node.

\[
\begin{align*}
(9) & \quad \text{Merge in and DP to form PP } in \text{ a shoebox}: \\
& \quad \text{PP} \\
& \quad in[P, \underline{uD}] \quad \text{DP} \\
& \quad a[D, \underline{uN}] \quad \text{shoebox}[N]
\end{align*}
\]

\[
\begin{align*}
(10) & \quad \text{Merge live with PP}: \\
& \quad \ldots
\end{align*}
\]

\[
1\text{Only the former will concern us here.}
\]
(11) Merge *may* with VP:

\[
\begin{array}{c}
\text{T} \\
\text{may}[T, \text{pres, } +V, uD^*] \\
\text{VP} \\
\text{he}[D, 3, \text{sg, masc}] \\
\text{V'} \\
\text{live}[V, +D, +P] \\
\text{PP} \\
\text{in}[P, +D] \\
\text{DP} \\
a[D, +N] \text{ shoebox}[N]
\end{array}
\]

- $uD^*$ on T (aka ‘The EPP’) has not been checked. Nothing left in the numeration to Merge
- T Agrees with closest element bearing the relevant feature, namely he[D]:

(12)

\[
\begin{array}{c}
\text{T} \\
\text{may}[T, \text{pres, } +V, uD^*] \\
\text{VP} \\
\text{he}[D, 3, \text{sg, masc}] \\
\text{V'} \\
\text{live}[V, +D, +P] \\
\text{PP} \\
\text{in}[P, +D] \\
\text{DP} \\
a[D, +N] \text{ shoebox}[N]
\end{array}
\]

- Because the $uD$ feature on T is strong ($uD^*$), he[D] Moves to Spec-TP:

(13)

\[
\begin{array}{c}
\text{TP} \\
\text{he}[D, 3, \text{sg, masc}] \\
\text{T'} \\
\text{may}[T, \text{pres, } +V, +D^+] \\
\text{VP} \\
\langle \text{he} \rangle \\
\text{V'} \\
\text{live}[V, +D, +P] \\
\text{PP} \\
\text{in}[P, +D] \\
\text{DP} \\
a[D, +N] \text{ shoebox}[N]
\end{array}
\]

- Agree is a static relation between two subconstituents
- Move does just what it says (dislocates a subconstituent from one position in the structure to another).
- Agree and Move are also triggered by uninterpretable features.

**BACK TO COPULAR CLAUSES!**
1.3 Predicational core

• In copular clauses, predication relation is syntactically mediated by the projection of a functional head, Pred:

\[
\begin{array}{c}
\text{PredP} \\
\text{XP}_{\text{ref}} \quad \text{Pred'} \\
\text{Pred} \quad \text{XP}_{\text{pred}}
\end{array}
\]

• Pred takes two arguments—a predicative one and a referential one.

• semantic selection (s-selection):

  - \(\text{XP}_{\text{pred}}\) can be AP, PP, NP, DP, and VP.
  - \(\text{XP}_{\text{ref}}\) is typically DP (but can be a type-shifted CP or AP)

• In PredPs underlying specificational clauses, both are DPs:

\[
\begin{array}{c}
\text{PredP} \\
\text{DP}_{\text{ref}} \quad \text{Pred'} \\
\text{Pred} \quad \text{DP}_{\text{pred}}
\end{array}
\]

• Fixed order of Merge (governed by semantic type of Pred head: \((e,t),(e,t))\))

  - \(\text{XP}_{\text{pred}}\) Merged first (i.e. as complement of Pred)
  - \(\text{DP}_{\text{ref}}\) Merged second (i.e. as specifier of Pred)

• Evidence from word order in small clause (= PredP) complements (Rothstein 1995:41ff)

(16) I consider \[\text{PredP} \text{ Susan my best friend}\]

(17) *I consider \[\text{PredP} \text{ my best friend Susan}\]

––––––––––––––––––––––––––––––––––––––––––––––––––––––

1.4 Copular clauses

- Minimal clause structure shared by predicational and specificational clauses:

\[
(18) \begin{array}{c}
\text{T} \\
\text{T} \quad \nu_b \text{P} \\
\nu_b \\
\text{PredP} \\
\text{DP}_{\text{ref}} \quad \text{Pred}' \\
\text{Pred} \quad \text{DP}_{\text{pred}}
\end{array}
\]

- \(\nu_b\)
  - c-selects PredP (uPred)
  - is unaccusative:
    * no external argument (no uD)
    * no accusative case (no ucase:acc)
  - spelled out as the copula
  - behaves as an aux wrt. raising to T (uInf:*)

- T
  - c-selects \(\nu_b\)P (\(\nu_b\))
  - locus of tense (interpretable pres past, or non-fin feature)
  - finite T assigns nominative (ucase:nom)
  - requires DP in specifier position (‘The EPP; uD*)
  - may bear uninterpretable topic feature (utop) — grammaticalization of preference for topic subjects

- DP\(_{\text{ref}}\) and DP\(_{\text{pred}}\)
  - need case (ucase:)
  - neither, one, or both may be topic ([top])

What will always happen \(\nu_b\) moves to T (left-adjoins to T):

\[
(19) \begin{array}{c}
\text{T} \\
\text{T} \quad \text{[uD*, ucase:nom]} \\
\nu_b \\
\text{[inff:pres]} \quad \nu_b \text{P} \\
\text{[inff:pres]} \quad \text{[inff:pres]} \\
\text{PredP} \\
\text{DP}_{\text{ref}} \quad \text{Pred}' \\
\text{Pred} \quad \text{DP}_{\text{pred}} \quad \text{ucase:}
\end{array}
\]

What happens next depends on:

- Whether T bears [utop]
- Which DP bears [top] (if any)
Scenario A (= (19))  T does not bear [utop], neither DP bears [top]:

\[(20)\]
\[
\begin{array}{c}
T \\
\quad T[uD^*, ucase:nom] \\
\quad \nu_b \\
\quad T[\text{infl:pres}] \\
\quad \langle \nu_b \rangle \\
\quad \nu_b P \\
\quad \text{PredP} \\
\quad \text{DP}_{\text{ref}}[\text{ucase:}] \\
\quad \text{Pred}' \\
\quad \text{Pred} \\
\quad \text{DP}_{\text{pred}}[\text{ucase:}] \\
\end{array}
\]

→ Predicational clause (DP_{\text{ref}} Moves to Spec-TP)

\[(21)\]
\[
\begin{array}{c}
\text{TP} \\
\quad \text{DP}_{\text{ref}}[\text{ucase:nom}] \\
\quad \text{T}' \\
\quad \text{T}[\text{uD}^*, \text{nom}] \\
\quad \nu_b \\
\quad T[\text{infl:pres}] \\
\quad \langle \nu_b \rangle \\
\quad \nu_b P \\
\quad \text{PredP} \\
\quad \langle \text{DP}_{\text{ref}} \rangle \\
\quad \text{Pred}' \\
\quad \text{Pred} \\
\quad \text{DP}_{\text{pred}}[\text{ucase:}] \\
\end{array}
\]

Scenario B  T bears [utop], DP_{\text{pred}} bears [top]

\[(22)\]
\[
\begin{array}{c}
\text{T} \\
\quad T[uD^*, utop, ucase:nom] \\
\quad \nu_b \\
\quad T[\text{infl:pres}] \\
\quad \langle \nu_b \rangle \\
\quad \nu_b P \\
\quad \text{PredP} \\
\quad \text{DP}_{\text{ref}}[\text{ucase:}] \\
\quad \text{Pred}' \\
\quad \text{Pred} \\
\quad \text{DP}_{\text{pred}}[\text{ucase:, top}] \\
\end{array}
\]

→ Specificational clause (DP_{\text{pred}} Moves to Spec-TP):

\[(23)\]
\[
\begin{array}{c}
\text{TP} \\
\quad \text{DP}_{\text{pred}}[\text{nom, top}] \\
\quad \text{T}' \\
\quad \text{T}[\text{uD}^*, \text{utop, nom}] \\
\quad \nu_b \\
\quad T[\text{infl:pres}] \\
\quad \langle \nu_b \rangle \\
\quad \nu_b P \\
\quad \text{PredP} \\
\quad \text{DP}_{\text{ref}}[\text{ucase:}] \\
\quad \text{Pred}' \\
\quad \text{Pred} \\
\quad \langle \text{DP}_{\text{pred}} \rangle \\
\end{array}
\]
1.5 The markedness of specificational clauses

The possible scenarios (actually, the possible numerations)

<table>
<thead>
<tr>
<th>Numeration</th>
<th>DP\textsubscript{ref}</th>
<th>DP\textsubscript{pred}</th>
<th>T</th>
<th>Clause</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. = (20)–(21)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Predicational</td>
</tr>
<tr>
<td>2.</td>
<td>—</td>
<td>—</td>
<td>utop</td>
<td>*</td>
</tr>
<tr>
<td>3.</td>
<td>—</td>
<td>top</td>
<td>—</td>
<td>Predicational</td>
</tr>
<tr>
<td>4. = (22)–(23)</td>
<td>—</td>
<td>top</td>
<td>utop</td>
<td>Specificational</td>
</tr>
<tr>
<td>5.</td>
<td>top</td>
<td>—</td>
<td>—</td>
<td>Predicational</td>
</tr>
<tr>
<td>6.</td>
<td>top</td>
<td>—</td>
<td>utop</td>
<td>Predicational</td>
</tr>
<tr>
<td>7.</td>
<td>top</td>
<td>top</td>
<td>—</td>
<td>Predicational</td>
</tr>
<tr>
<td>8.</td>
<td>top</td>
<td>top</td>
<td>utop</td>
<td>Predicational</td>
</tr>
</tbody>
</table>

**Numeration 1** DP\textsubscript{ref} is structurally favored for subject position by configuration of PredP (it asymmetrically c-commands DP\textsubscript{pred}). Appropriate in any context; places no topic-demands on either DP.

**Numeration 2** Crashes because no DP can check \([utop]\) on T

**Numeration 3** Structurally favored DP\textsubscript{ref} can check all features on T. Interpretable topic feature on has no effect on derivation, but only on interpretation of resulting structure: DP\textsubscript{pred} must be construable as topic, e.g. as in (25).

(25) Q: Who is the winner?  
A: JOHN is [the winner]. \quad [Predicational]

**Numeration 4** Structurally favored DP\textsubscript{ref} can not check all features on T. Instead T Agrees with DP\textsubscript{pred}, which can due to its \([top]\) feature. Possible context for resulting structure:

(26) Q: Who is the winner?  
A: The winner is JOHN. \quad [Specificational]

**Numerations 5** As usual, T attracts closest DP that can satisfy all of its uninterpretable features, here DP\textsubscript{ref}. Resulting structures is appropriate where DP\textsubscript{ref} can be construed as topic:

(27) Q: What/Who is John?  
A: John is the winner. \quad [Predicational]

**Numeration 6** Indistinguishable from 5. This allows us to understand the infelicity of A2:

(28) Q: What/Who is John?  
A1: John is the winner. \quad [Predicational]  
A2: #The WINNER is John. \quad [Specificational]

**Numerations 7 & 8** Either DP can check all features on T. Structurally favored DP\textsubscript{ref} Moves to Spec-TP. Unclear whether this is empirically supported—can’t use Question–Answer pairs, since this forces one DP to be focus (and by implication not topic).
2 Some questions raised by the analysis

1. Can we reclassify be as Pred (making \( \nu_b \) superfluous)? Not really.
   - it would not allow us to understand (29):
     
     (29) I consider [\( \text{PredP} \) Susan (*be) my best friend]

     - it would predict wrong word order in context of modal/aux:
       
       (30) [The winner], might be [\( \text{PredP} \) Susan \( t_i \)].
       (31) *[The winner], might be [\( \text{PredP} \) Susan be \( t_i \)].

     - and in raising contexts:
       
       (32) [The winner], seems to be [\( \text{PredP} \) Susan \( t_i \)].
       (33) *[The winner], seems to be [\( \text{PredP} \) Susan be \( t_i \)].

     - unless Pred always raises to \( \nu_b \), but then we couldn’t get rid of \( \nu_b \).

2. How does \( \text{DP}_{ref} \) get case in (22)–(23)?
   - default accusative case (in roughly the sense of (Schütze 2001))
   - evidence from Swedish, where default case is nominative (though see Maling and Sprouse 1995):
     
     (34) Vinderen er ikke ham/*han. winner-the is not him/he
     (35) Vinnaren är inte *honom/han. winner-the is not him/he

     - similarly for \( \text{DP}_{pred} \) in (20)–(21), but no nom–acc distinction on neuter pronoun.
     - Tie default case to lack of theta roles?

3. Why don’t other predicative complements raise to Spec-TP when topic?
   
   (36) *Tired\[\text{top}\] is him.

   - EPP on T is “picky”: can only be satisfied by D(P), hence \( \nu_D^* \).

4. Why don’t topic-marked VP-internal DPs raise to Spec-TP in non-copular clauses?
   
   (37) She\[\text{top}\] pushed him.
       \( \neq \) He pushed her\[\text{top}\]

   - agentive \( \nu \) values case on VP-internal DP, making it inert for featural interaction with T.
5. Locality: why doesn’t $\text{DP}_{\text{ref}}$ interfere with $\text{DP}_{\text{pred}}$ raising to Spec-TP in (22)?

- “Clumping Effect”:
  $\text{DP}_{\text{ref}}$ cannot satisfy all of $[uD^*, \text{ucase:nom, utop}]$, but $\text{DP}_{\text{pred}}$ can.
- Maximizing feature checking overrules locality (contra Pesetsky and Torrego (2001:esp., fn. 36, p. 410))
- Redefining Agree to yield clumping:

\[(38)\] Given a head $H$ bearing uninterpretable features $F$:
  
  i. Search the c-command domain of $H$ (down to the edge of the next lowest phase) for a syntactic object whose label (head) contains features which would allow the elimination of the uninterpretable features of $H$
  
  ii. Perform the Agree operation between $H$ and the closest syntactic object whose label (head) allows elimination of all the uninterpretable features of $H$. Otherwise:
  
  iii. If no head is found whose featural content allows elimination of all uninterpretable features on $H$, perform the Agree operation between $H$ and the closest syntactic object whose label (head) allows elimination of some of the uninterpretable features of $H$.

3 Some implications

The connection with information structure

- Only get specificational clause when $\text{DP}_{\text{pred}}$ is topic (cf. (24))
- What about focus?

The role of T  Prediction: Only get specificational clause when T is present.

- TP vs. PredP complements to consider:

\[(39)\] TP complement:
  
  a. I consider [TP Susan to be the best doctor in the county]. [predicational]
  
  b. I consider [TP the best doctor in the county to be Susan]. [specificational]

\[(40)\] PredP complement:
  
  a. I consider [PredP Susan my best friend] [predicational]
  
  b. *I consider [PredP my best friend Susan] [specificational]

- Preposed absolutives:

\[(41)\] With Joyce out of the picture, there isn’t much point in continuing this discussion.

\[(42)\] Preposed PP takes TP complement (Roberts and Roussou 2002:127)\textsuperscript{3}
  
  a. (With) [TP Joyce being the only available candidate], there isn’t much point in continuing this discussion. [predicational]
  
  b. (With) [TP the only available candidate being Joyce], there isn’t much point in continuing this discussion. [specificational]

\[(43)\] Preposed PP takes PredP complement:
  
  a. With [PredP Joyce the only available candidate], there isn’t much point in continuing this discussion. [predicational]
  
  b. *With [PredP the only available candidate Joyce], there isn’t much point in continuing this discussion. [specificational]
• Subjunctive complements (CP contains TP):

(44) I demand that \[TP I be the only person (who is allowed) to use this pillow]. \[predicational]\n
(45) I demand that \[TP the only person (who is allowed) to use this pillow be me]. \[specificational]\n
Cross-linguistic variation

• Cross-linguistic variation as c-selectional differences

• absence of copula\(^4\) in languages like Hebrew, Irish, Scots Gaelic, Polish, Russian, Arabic, Zapotec can perhaps be understood as T c-selecting PredP?

4 Conclusions

Progress

• standardized structure for small clauses (PredP)

• integrated observations about information structure into syntactic derivation (via utop on T)

• understanding of the limited distribution of specificational word orders (no T, no specificational order)

• integrated copular structures into general theory of clause structure

Next steps

• Look at the role of focus

• Constraints default case

• Relation between specificational clauses and inversion to higher (A-bar) position (Birner 1994, Birner 1996)

• Look at cross-linguistic variation

\(^3\)Some speakers preferred (42a-b) without the initial with, hence the parentheses. All 15 speakers confirmed the key contrast between (42b) and (43b). One speaker did not accept (43a) or (43b), so for his dialect the hypothesis cannot be tested.

\(^4\)In some tenses under certain circumstances, see e.g. Doron (1983), Rapoport (1987), Rothstein (2001:chapter 8), Adger and Ramchand (2003), and Geist (1999) for data, discussion and further references
References


Line Mikkelsen
Department of Linguistics
University of California, Berkeley
1203 Dwinelle Hall, CA 94720-2650
mikkelse@socrates.berkeley.edu
http://ist-socrates.berkeley.edu/~mikkelse/