Ling 566 Nov 1, 2012

Passive Construction

Overview

- Passive
 - Arguments for lexicalist account
 - Details of our analysis
- Questions
- Ch 11 preview

The Passive in Transformational Grammar

- Passive was the paradigmatic transformation in early TG.
- Motivations
 - Near paraphrase of active/passive pairs.
 - Simplified statement of cooccurrence restrictions.
 - E.g. *devour* must be followed by an NP, *put* by NP-PP
 - Such restrictions refer to pre-transformational ("deep") structure.
 - Intuition that active forms were more basic, in some sense.
- Its formulation was complex:
 - Promote object
 - Demote subject, inserting by
 - Insert appropriate form of be, changing main verb to a participle.

But transforming whole sentences is overkill

• Passive sentences look an awful lot like some actives:

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The cat was chased by the dog vs
The cat was lying by the door
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• Passives occur without be and without the by phrase:

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Cats chased by dogs usually get away.
My cat was attacked.
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So a lexical analysis seems called for

- What really changes are the verb's form and its cooccurrence restrictions (that is, its valence).
- There are lexical exceptions
 - Negative:

Pat resembles Bo but *Bo is resembled by Pat
That look suits you but *You are suited by that look

Positive

Chris is rumored to be a spy but *They rumor Chris to be a spy

We posit a lexical rule

- Why not just list passive participles individually?
 - To avoid redundancy
 - To capture productivity (for example?)
- We make it a derivational (lexeme-to-lexeme) rule. Why?
 - Our constraints on lexeme-to-word rules wouldn't allow us to make Passive one.

The Passive Lexical Rule

$$\begin{bmatrix} d\text{-}rule \\ \text{INPUT} & \left\langle \mathbb{I}, \begin{bmatrix} tv\text{-}lxm \\ \text{ARG-ST} & \left\langle \text{[INDEX } i \right] \right\rangle \oplus \mathbb{A} \end{bmatrix} \right\rangle$$

$$OUPUT & \left\langle F_{PSP}(\mathbb{I}), \begin{bmatrix} part\text{-}lxm \\ \text{SYN} & \left[\text{HEAD} & \left[\text{FORM pass} \right] \right] \\ \text{ARG-ST} & \mathbb{A} \oplus \left\langle \begin{pmatrix} \text{PP} \\ \text{FORM by} \\ \text{INDEX } i \end{bmatrix} \right) \right\rangle \right\}$$

Questions About the Passive Rule

$$\begin{bmatrix} d\text{-}rule \\ \text{INPUT} & \left\langle \mathbb{I}, \begin{bmatrix} tv\text{-}lxm \\ \text{ARG-ST} & \left\langle \text{[INDEX }i \right] \right\rangle \oplus \mathbb{A} \end{bmatrix} \right\rangle$$

$$OUPUT & \left\langle F_{PSP}(\mathbb{I}), \begin{bmatrix} part\text{-}lxm \\ \text{SYN} & \left[\text{HEAD} & \left[\text{FORM pass } \right] \right] \\ \text{ARG-ST} & \mathbb{A} \oplus \left\langle \begin{pmatrix} \text{PP} \\ \text{FORM by} \\ \text{INDEX }i \end{pmatrix} \right\rangle \right\}$$

- Why is the morphological function F_{PSP} ?
- Why do we have a separate FORM value pass? Why not say the output is [FORM psp]?
- What kind of a PP is the *by*-phrase (that is, argument-marking or predicational)?

More Questions

$$\begin{bmatrix} d\text{-}rule \\ \text{INPUT} & \left\langle \mathbbm{1}, \begin{bmatrix} tv\text{-}lxm \\ \text{ARG-ST} & \left\langle \text{[INDEX } i \right] \right\rangle \oplus \mathbbm{A} \end{bmatrix} \right\rangle$$

$$\begin{bmatrix} \text{OUPUT} & \left\langle \text{F}_{PSP}(\mathbbm{1}), \begin{bmatrix} part\text{-}lxm \\ \text{SYN} & \left[\text{HEAD} & \left[\text{FORM pass } \right] \right] \\ \text{ARG-ST} & \mathbbm{A} & \oplus \left\langle \begin{pmatrix} \text{PP} \\ \text{FORM} & \text{by} \\ \text{INDEX} & i \end{pmatrix} \right\rangle \end{bmatrix}$$

- What makes the object turn into the subject?
- Why is the type of the input *tv-lxm*?
- What would happen if it were just *verb-lxm*?

Intransitives have passives in German

In der Küche wird nicht getanzt. in the kitchen is not danced 'There is no dancing in the kitchen.'

NB: The exact analysis for such examples is debatable, but German, like many other languages, allows passives of intransitives, as would be allowed by our analysis if the input type in the Passive LR is *verb-lxm*.

Passive Input & Output

stv-lxm

If you have one of these....

ARG-ST
$$\langle NP_i, Y_j \rangle$$

$$\begin{bmatrix}
INDEX & s \\
SEM
\end{bmatrix}$$
RESTR $\begin{bmatrix}
RELN & love \\
SIT & s \\
LOVER & i \\
LOVED & i
\end{bmatrix}$

Then you also get one of these....

$$\left\langle \text{loved ,} \begin{bmatrix} part\text{-}lxm \\ \text{SYN} & \begin{bmatrix} \text{HEAD } \begin{bmatrix} \text{FORM pass} \end{bmatrix} \end{bmatrix} \right\rangle$$

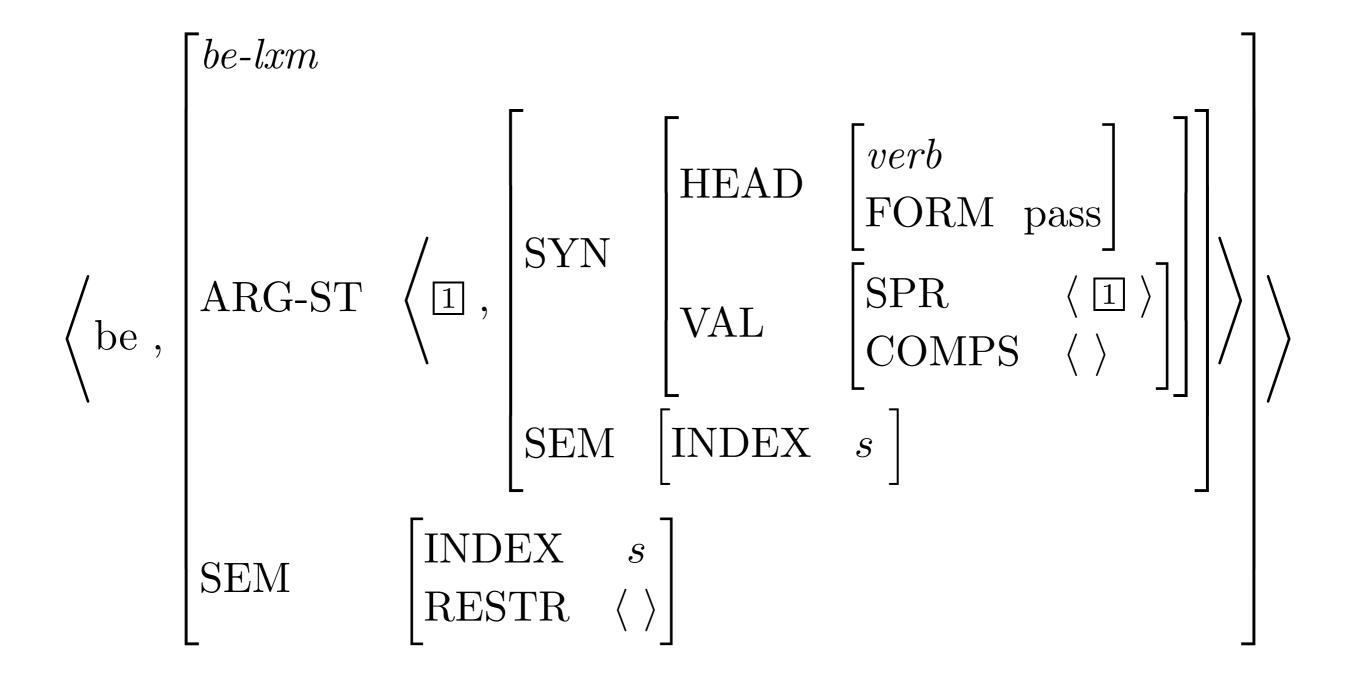
$$\left\langle \text{loved ,} \begin{bmatrix} \text{PP} \\ \text{FORM by} \\ \text{INDEX } i \end{bmatrix} \right\rangle$$

$$\left\langle \text{SEM} & \begin{bmatrix} \text{INDEX } s \\ \\ \text{RESTR} & \begin{bmatrix} \text{RELN } & \text{love} \\ \text{SIT } & s \\ \\ \text{LOVER } i \\ \\ \text{LOVED } j \end{bmatrix} \right\rangle$$

Actually...

	$\int part$ - lxm	
$\left\langle \text{loved} \right.$	SYN	$\begin{bmatrix} \text{HEAD} & \begin{bmatrix} verb & \\ \text{FORM} & \text{pass} \end{bmatrix} \end{bmatrix}$
	ARG-ST	$\langle \text{ NP}_j, \begin{pmatrix} \text{PP} \\ \text{FORM} & \text{by} \\ \text{INDEX} & i \end{pmatrix} \rangle$
	SEM	$\begin{bmatrix} \text{MODE} & \text{prop} \\ \text{INDEX} & s \end{bmatrix} / \\ \text{RESTR} & \left\langle \begin{bmatrix} \text{RELN} & \text{love} \\ \text{SIT} & s \\ \text{LOVER} & i \\ \text{LOVED} & j \end{bmatrix} \right\rangle $

The be that Occurs with Most Passives



Questions About the Entry for be

$$\left\langle \text{be} \right., \left[\begin{array}{c} \text{be-lxm} \\ \text{ARG-ST} \end{array} \right. \left\langle \boxed{\square} \right., \left[\begin{array}{c} \text{HEAD} \end{array} \right. \left[\begin{array}{c} \text{verb} \\ \text{FORM pass} \end{array} \right] \\ \text{VAL} \end{array} \right. \left[\begin{array}{c} \text{SPR} & \left\langle \boxed{\square} \right\rangle \\ \text{COMPS} & \left\langle \right\rangle \end{array} \right] \right] \right\rangle \right\rangle$$

$$\left[\begin{array}{c} \text{SEM} \end{array} \right. \left[\begin{array}{c} \text{INDEX} \quad s \\ \text{RESTR} & \left\langle \right\rangle \end{array} \right]$$

- Why doesn't it include valence features?
- What is the category of its complement (i.e. its 2nd argument)?
- What is its contribution to the semantics of the sentences it appears in?
- Why is the first argument tagged as identical to the second argument's SPR value?

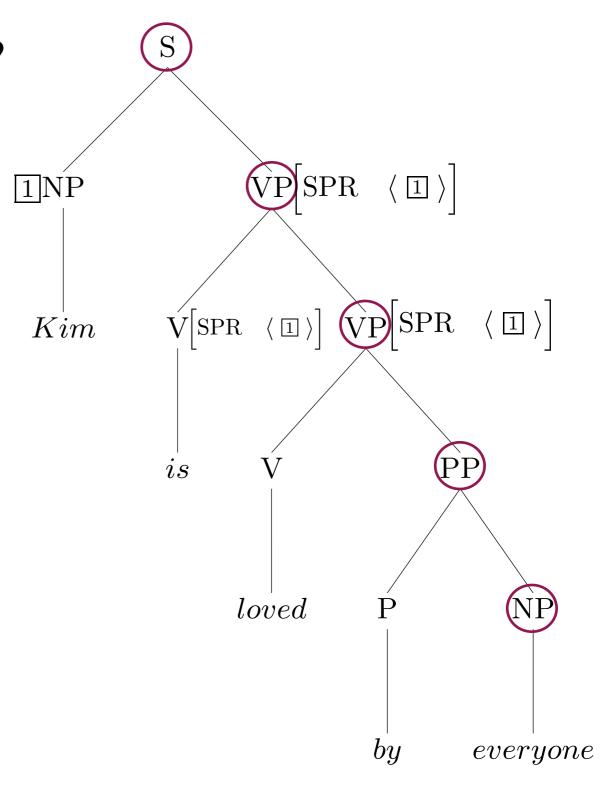
Passive tree

Which rule licenses each node?

What is the SPR value of the upper VP?

What is the SPR value of the lower VP?

What is the SPR value of *is*? Any questions?



More Questions

- Why do we get

 They are noticed by everyone

 and not

 *Them are noticed by everyone?
- Why don't we get
 *They is noticed by everyone?
- What would facts like these entail for a transformational analysis?

- Why is this be of type be-lxm?
- What does *be* in non-passive sentences look like?
- Are instances of be-lxm passive?
- What does the lexical entry for passive *get* look like? Could it be *be-lxm* too?
- Is the main distinction between *be*-passive and *get*-passive one of formality?

- How is the case of a gerund determined, and what does that have to do with passive leaving the CASE value on the subject of the output underspecified?
 - Him/*He being arrested by the police upset many people
- How could we handle "His being arrested upset many people"?
- part-lxm isn't under verb-lxm. Does that mean that passive verbs aren't verbs? Why is part-lxm under const-lxm?

- If the lexical entry for be is [FORM pass], how does it get to be [FORM fin] at the S?
- Where does the FORM of be get specified? What accounts for:
 - The cat is bitten by the dog.
 - The cat was bitten by the dog.
 - *The cat be bitten by the dog.
- Does the passive "be" have FORM pass because we defined it that way, or because it inherits information from its passive VP complement?

- Wait, aren't we cheating by not realizing the SPR of the passive verb? How do we know when SPR has to be realized and when it doesn't?
- How do you keep track of everything (SPR, COMPS, ARP, ARG-ST etc etc)?
- Do we ever apply lex rules backwards (OUTPUT to INPUT), e.g. to get an active sentence (or lexeme) from a passive sentence (or lexeme)?
- What do we mean by "passive words"? The verb's arguments? The verb itself?

- Do we ever see morphological agreement with passive participles?
- Does this analysis of passive work in other languages, too?
- Will all prepositions have a specific FORM value? When else do we need this?
- Does the PP's being optional make the semantics incomplete when it's not realized?

- Is the only reason it's not an i-rule that the ARG-ST has to be rearranged?
- Why is passive "perhaps the most extensively discussed syntactic phenomenon in generative grammar"?

- Are passive verbs syntactically adjectives?
 - Jen liked by many is running for chess club secretary.
 - Throw out the melted ice.
 - The book was red.
 - The book was read.
 - The cat got coaled.
 - The cat got cold.

- Are there other diathesis alternations besides active/passive? Causative? Middle construction?
- What about "The cat done got bit by the dog?" Can we just extend the shared subject to *done* as well as *got* and call the *bit* formation a dialect specific function?

• I'm constantly impressed by how easy it is to adapt our grammar to cover new phenomena such as passive constructors. Sure we have to add a couple extra rules, but it's never that complicated. I feel like it would be easy to start making a grammar and then suddenly find it can't handle some fairly common usage unless you add a lot of hacks or completely change everything around. Is this a sign that the early decisions for our grammar were the right ones? Or are we just seeing a polished version of something that did have to be constantly changed around?

Overview

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 - Details of our analysis
- Questions
- Reading Questions

• Is the only thing preventing a passive verb from combining with the subject without a helper like a form of "be" because the FORM would not be fin and it wouldn't be a valid S, or is there something else preventing that tree from existing (even as a subtree)?

- Aren't we generating *You are loved by I?
- The book (p.314) shows how to derive the ARG-ST <NPj PP[to],PP[by]>, how would we generate the alternate order <NPj PP [by],PP[to]>?
 - A letter was faxed by Kim to Sandy.
- How do we get *The cat is being bitten by the dog?*