Hyperraising and Logical Form: evidence from Buryat

Massachusetts Institute of Technology

Tatiana Bondarenko | tbond@mit.edu | Massachusetts Institute of Technology | GLOW 43, the Humboldt-Universität zu Berlin

1 Overview

QUESTION: What determines whether a language allows **hyperraising to object (HtO)** — movement of an argument of an embedded finite CP into the matrix clause?

(1) *Bair thought **Badma**$_1$ [$_{CP}$ that t_1 will draw Sajana]. *English*

(2) bair **badm-i:j**$\ominus_1$ [$_{CP}$ t_1 sajan-i:j$\ominus$
Bair.NOM **Badma-ACC** Sajana-ACC
zura-xa g$\ominus$-ž$\ominus$] han-a: *Buryat*
draw-FUT say-ADV think-PST

'Bair thought that Badma will draw S.'

MY PROPOSAL: semantic type of the CP determines whether HtO is possible out of it.

★ CPs come in two kinds: some, like Buryat CPs, denote properties of events (<vt>-CPs), others, like English CPs, denote properties of individuals (<et>-CPs);

★ only <vt>-CPs can be hyperraised out of: due to the semantics of movement into a θ-position, hyperraising out of <et>-CPs creates a type mismatch.
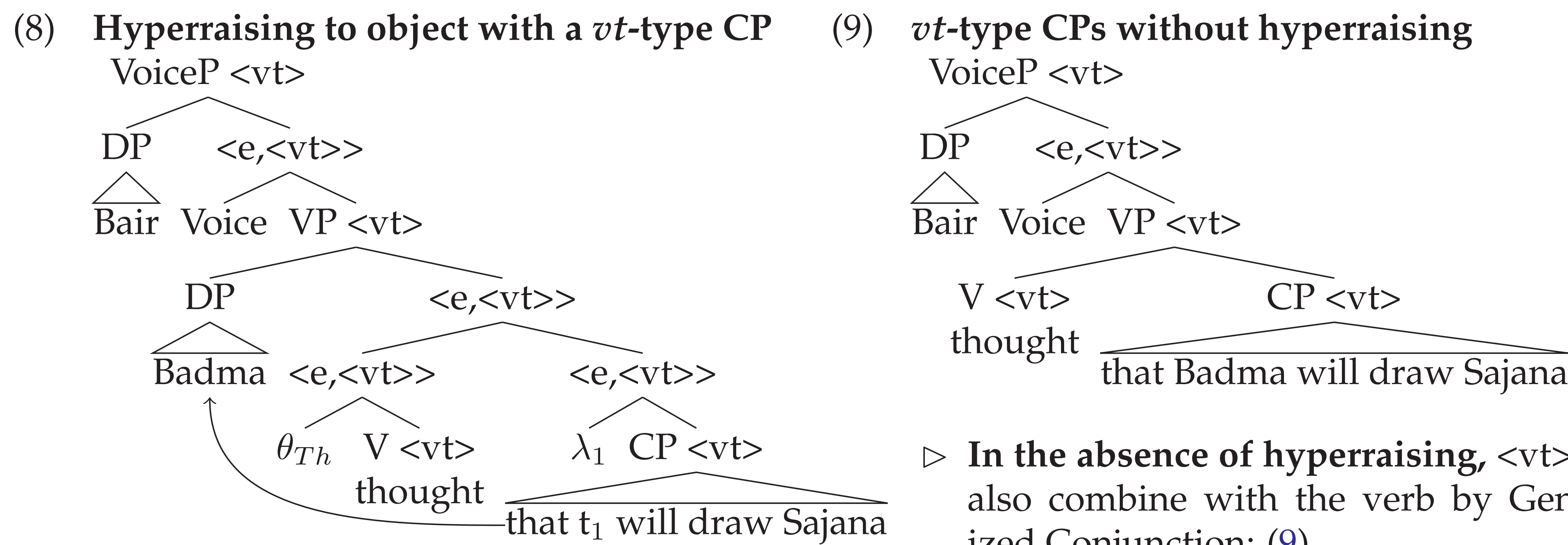
2 Assumptions

- (Kratzer 2013): CPs describe the Content of an event/individual, (3)-(5).
- neo-Davidsonian representations for all arguments including Theme (θ_{Th}): (6).

(3) $[\![\text{think}]\!]^{w,g}= \lambda e \in D_v.\text{think}(e)$
(4) $[\![\text{CP}_{vt}]\!]^{w,g}= \lambda e \in D_v. \text{CONT}(e) = \text{Badma will draw Sajana}$
(5) $[\![\text{CP}_{et}]\!]^{w,g}= \lambda x \in D_e. \text{CONT}(x) = \text{Badma will draw Sajana}$
(6) $[\![\theta_{Th}]\!]^{w,g}= \lambda f_{vt}.\lambda y_e.\lambda e_v. f(e) \wedge \text{Theme}(e)=y.$

★ hyperraising to object involves (potentially covert) raising into the object θ-position position;

★ movement leaves a trace and creates an abstractor (Heim & Kratzer 1998), but the abstractor is separated from the DP's landing site (Deal 2018).

3 The proposal

LANGUAGES WITH *vt*-TYPE CPs

- Abstraction at the edge of a *vt*-type CP creates a function of the same type as the function created by combining the verb with the object-introducing θ_{Th} – **<e,<vt>>**, (7a).
- This allows to combine the verb and the embedded clause by Generalized Conjunction (Partee & Rooth 1983): (7b). *Badma* saturates the individual argument; the resulting VoiceP is in (7c).

(7) a. $[\![\lambda_1 \text{CP}_{vt}]\!]^{w,g}= \lambda x \in D_e. \lambda e \in D_v. \text{CONT}(e) = x \text{ will draw Sajana}$

b. $[\![\theta_{Th} V \lambda_1 \text{CP}_{vt}]\!]^{w,g}= \lambda x \in D_e. \lambda e \in D_v. \text{think}(e) \wedge \text{Theme}(e)=x \wedge \text{CONT}(e) = x \text{ will draw S.}$

c. $[\![\text{VoiceP}]\!]^{w,g}= \lambda e_v. \text{think}(e) \wedge \text{Theme}(e)=\textbf{Badma} \wedge \text{Exp}(e)=B. \wedge \text{CONT}(e) = \textbf{Badma} \text{ will draw S.}$

(8) **Hyperraising to object with a *vt*-type CP**

(9) ***vt*-type CPs without hyperraising**

▷ **In the absence of hyperraising,** <vt>-CPs also combine with the verb by Generalized Conjunction: (9).

LANGUAGES WITH *et*-TYPE CPs

- In languages with <et>-CPs (English), the hyperraising derivation will create a **type mismatch**: an <e,<et>> CP will not be able to combine with the <e,<vt>>-type verb by Generalized Conjunction:

(10) ***Hyperraising to object with a *et*-type CP**

(11) ***et*-type CPs without hyperraising**
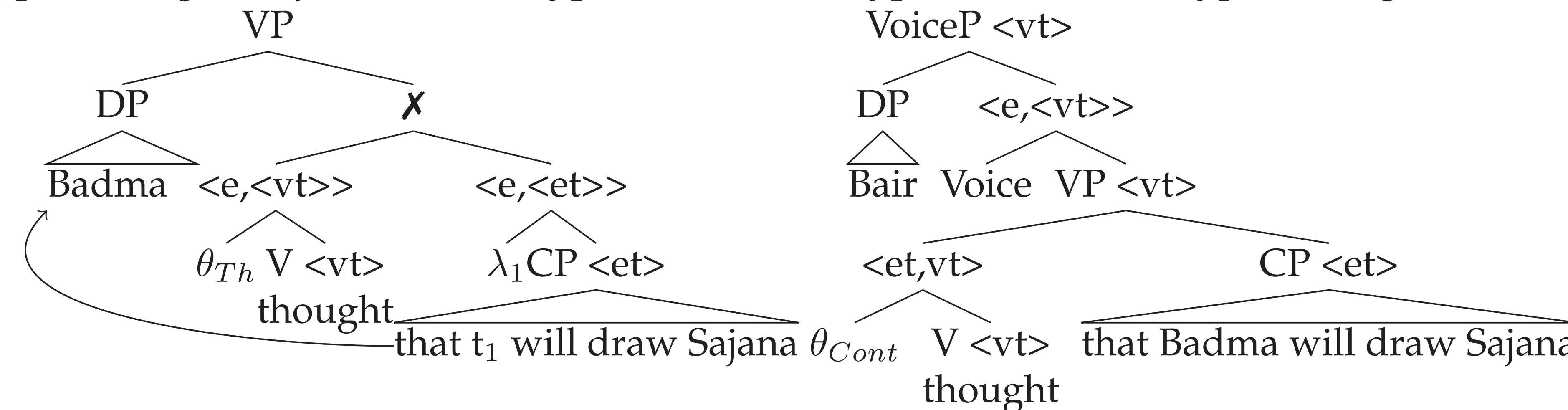
▷ <et>-CPs combine attitude verbs through an argument-introducing functional head θ_{Cont}.

(12) a. $[\![\theta_{Cont}]\!]^{w,g}= \lambda P_{vt}.\lambda Q_{et}.\lambda e_v. P(e) \wedge \text{CONT}(e) = \iota p [\forall x \in Q[\text{CONT}(x)=p]]$

b. $[\![\text{VoiceP}]\!]^{w,g}= \lambda e_v. \text{think}(e) \wedge \text{Exp}(e)=\text{Bair} \wedge \text{CONT}(e) = \iota p [\forall x \in \{y: \text{CONT}(y) = \text{Badma will draw Sajana}\}[\text{CONT}(x)=p]]].$

4 Correlations: the semantic type and the morphosyntax

Morphology	Syntax	Semantics	Hyperraising	Languages
nominal	nominal-like distribution	<et> type	no	English, Russian
adverbial	adverbial-like distribution	<vt> type	yes	Buryat, Tatar

5 Predictions of (8)

① **Promotion of the hyperraised argument into the matrix subject position:**

(13) **bi**$_1$ badma-da t_1 [$_{CP}$ t_1 sajan-i:j$\ominus$
1SG.NOM B.-DAT S.-ACC
zura-xa g$\ominus$-ž$\ominus$] hana-**gd-a:-b**
draw-FUT say-CONV think-**PASS**-PST-**1**

'Badma thought that I will draw Sajana.'

In order to saturate both the Theme of *thinking* and the Agent of *drawing*, **the hyperraised DP needs to be interpreted in its final position**.

② ⇒ **no reconstruction:**

(14) *Badma **x$\ominus$n-i:-šj**$\ominus$ t$\ominus$rg$\ominus$
Badma.NOM who-ACC-PTCL cart
$\ominus$md$\ominus$l-$\ominus$:-**güj** g$\ominus$-ž$\ominus$ xar-a:
break-PST-NEG COMP see-PST

'Badma saw that no one broke the cart.'

② ⇒ **obligatory *de re*:**
de dicto OK with NOM, * with ACC

(15) s$\ominus$s$\ominus$g xan garudi ʃ**ubu:-n**
Seseg.NOM HON Garudi **bird-NOM**
/#ʃ**ubu:-j**$\ominus$ oi so:-gu:r ni:d-$\ominus$:
/**bird-ACC** forest in-INSTR fly-PST
g$\ominus$-ž$\ominus$ han-a: xarin xan garudi
say-CONV think-PST but HON Garudi
ʃubu:-n gazar d$\ominus$:r$\ominus$ ügi: g$\ominus$-ž$\ominus$
bird-NOM Earth on NEG say-CONV
m$\ominus$d$\ominus$-n$\ominus$-b
know-PRS-1SG

'Seseg thought that bird Garudi flew through the forest, but I know that there is no bird Garudi on the Earth.'

③ ⇒ **no indexical shifting:**

(16) badma **namaj**$\ominus$ sajan-i:j$\ominus$
Badma.NOM **1SG.ACC** Sajana-ACC
zura-xa g$\ominus$-ž$\ominus$ han-a:
draw-FUT say-CONV think-PST

'Badma$_k$ thought that I$_{speaker/*k}$ will draw Sajana.'

SELECTED REFERENCES:
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