ADDRESSING SUPERSLOPPINESS

Let *you* be bound to *me*

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VE RI TAS

Indexicals *I* and *you*

- **Fixity Thesis** (Kaplan 1977)
  I: speaker in the actual speech act $[\![\text{me}]\!]^{c,w,g} = s_c$
  you: addressee in the actual speech act $[\![\text{you}]\!]^{c,w,g} = a_c$

- **Challenges**
  - Bound readings of *I/you*

    (1) **Only I** did **my** homework. (nobody else did their homework)
    (Heim 1991)

  - Indexical shift

    (2) **Hɛseni** va kɛ **ɛz** dɛwletia [Zazaki]
    Hesen.OBL said that **I** rich.be-PRES
    Hesen *said that* ***he*** *is rich.*
    (Anand & Nevins 2004)

Goal

- Hypothesis:

  dependency between the two context parameters **speaker** and **addressee**

- Evidence:

  You* can be bound by *I and vice versa

  (in English and other languages)

  (3) i. "I love you"

  ii. **"I do too".**

  → **I** love **my** interlocutor

Outline

- Novel empirical facts (VP-ellipsis and focus constructions)
- Failure of previous analyses of indexicals
- Analysis
  - Possible **binding** between *I* and *you*
  - *I* and *you* can be understood as **descriptions**

Data: VP-ellipsis

- (3) i. *(Romeo to Juliet)* "I love you".
  ii. *(Juliet to Romeo)* **"I do too".**

a. "I love you too". **[Juliet loves Romeo]**

b. "I love me/myself too". [Juliet loves Juliet]

Data: VP-ellipsis

- (3) i. *(Romeo to Juliet)* "I love you".
  ii. *(Juliet to Romeo)* **"I do too".**

a. "I love you too". **[Juliet loves Romeo]**

b. "I love me/myself too". [Juliet loves Juliet]

- (4) Julie loves **her** mother. Liz does too.

a. **Julie λi**[VP loves **her$_i$** mother]. **Liz** does **~~λi~~**[VP ~~love **her$_i$** mother~~], too.

Elided VP: *λx. x love x's mother* *(sloppy)*

b. **Julie$_i$** [VP loves **her$_i$** mother. Liz does [VP ~~love **her$_i$** mother~~], too.

Elided VP: *λx. x love **g(i)**'s mother* *(strict)*

Data: VP-ellipsis

- (3) i. *(Romeo to Juliet)* "I love you".
  ii. *(Juliet to Romeo)* **"I do too".**

a. "I love you too". **[Juliet loves Romeo]**

b. "I love me/myself too". [Juliet loves Juliet] *(strict)*
Elided VP: *λx. x love Juliet*

- (4) Julie loves her mother. Liz does too.

a. **Julie λi**[VP loves **her$_i$** mother]. **Liz** does ~~**λi**~~[VP ~~love **her$_i$** mother~~], too.

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Data: VP-ellipsis

- (3) i. *(Romeo to Juliet)* "I love you".
  ii. *(Juliet to Romeo)* **"I do too".**

a. "I love you too". **[Juliet loves Romeo]** ***(supersloppy)***
? ~~Elided VP: *λx. x love x*~~ ?

b. "I love me/myself too". [Juliet loves Juliet] *(strict)*
Elided VP: *λx. x love Juliet*

- (4) Julie loves her mother. Liz does too.

a. **Julie λi**[VP loves **her$_i$** mother]. **Liz** does ~~**λi**~~[VP ~~love **her$_i$** mother~~], too.

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b. **Julie$_i$** [VP loves **her$_i$** mother. Liz does [~~VP love **her$_i$** mother~~], too.

Elided VP: *λx. x love g(i)'s mother* *(strict)*

Data: VP-ellipsis

- (5) i. *(Lucy to her mother)* "You don't understand me".
  ii. ***(Lucy's mother** to **Lucy**)* "**You** don't either".

a. "**You** don't understand **me** either".
[**Lucy** does not understand **her mother**] ***(supersloppy)***

b. "You don't understand yourself either".
[Lucy does not understand Lucy] *(strict)*

Data: Focus constructions

(6) *(Tom to Sue, in a ballroom dancing class)*

"Only I make you swirl".

a. No other dancer makes **his partner** swirl. ***(supersloppy)***

b. No other dancer makes Sue swirl. *(strict)*

(7) Only Tom makes his partner swirl.

a. Only Tom_i λi [$_{VP}$ makes his_i partner swirl].
Alternative VP: *λx. x makes x's partner swirl* *(sloppy)*

b. Only Tom [$_{VP}$ makes his partner swirl].
Alternative VP: *λx. x makes Tom's partner swirl* *(strict)*

Data: Focus constructions

(8) *(Sue to Tom, in a ballroom dancing class)*

"Only you didn't make me fall over".

a. All the other dancers made **their partner** fall over. ***(supersloppy)***

b. All the other dancers made Sue fall over. *(strict)*

Experimental study

- Questionnaire on Qualtrics
- 28 native English speakers
- 32 English sentences
- Task: to which extent the strict/supersloppy interpretations are accessible based on a continuous scale 0-100

- Results for supersloppy readings:

(3) “I love you.” “I do too.” [79%]
(5) “You don’t understand me”. “You don’t either”. [64%]
(6) “Only I make you swirl”. [65%]
(8) “Only you didn’t make me fall over”. [65%]

Previous mention of similar data

- Rebuschi (1997: 173): "quirky dependence"

(1) a. [A to B] — Je t'ai vu. ('I saw you.')

a'. [B to A] — Moi aussi. (='*I* saw *YOU* too.' / ≠'I saw myself too.')[3]

- Bevington (1998: 84): "switch"

(3) a. Speaker 1: I_1 love you_2

b. Speaker 2: I_2 do, too

- Chung (2000): "mysterious sloppy reading"

(4) Jack: I don't want to be divorced from you.

Jill: Well, I do __!

(a) [want to be divorced from you]

Existing analyses of indexicals

- They fail to capture the data:
  - **Variable binding** undergenerates
  - **Context shifting** overgenerates
  - **Complex focus** over- and undergenerates

Existing analyses of indexicals

- They fail to capture the data:
  - **Variable binding** undergenerates

(1) **Only I** did **my** homework. (Heim 1991, cf. Partee 1989)

a. Nobody$_i$ else did their$_i$ homework.	**λx. x did x's homework.**	***(sloppy)***
b. Nobody else did my homework.	λx. x did my homework.	*(strict)*

General proposal (Heim 2008, Kratzer 2009, Sudo 2012, a.o.):

I and *you* denote **variables** just like *(s)he*.

→ this cannot explain binding of *you* by *I* (and vice versa) since *I* and *you* do **not** have **the same person feature**.

[Existing analyses of indexicals]

- They fail to capture the data:
  - **Variable binding** undergenerates

- **Feature deletion** (von Stechow 2003)

I and *you* are variables and their *phi*-features can be deleted under binding.

- **Feature transmission** (Kratzer 2009)

I and *you* can be minimal pronouns born featureless, which inherit *phi*-features from their binder at PF.

- **No presuppositional *phi*-features in focus** (Heim 2008a)

I and *you* are variables with presuppositional *phi*-features, which are ignored in focus alternatives.

- **Person information in binding** (Sudo 2012)

I and *you* are variables and the person information is encoded in the system of semantic binding.

Existing analyses of indexicals

- They fail to capture the data:
  - **Context shifting** overgenerates

In some languages, indexicals can shift in **attitude contexts.**
→ existence of "monsters" (Schlenker 2003, Anand 2006, a.o.)

(2) **Hɛseni** va kɛ **ɛz** dɛwletia [Zazaki]
Hesen.OBL said that **I** rich.be-PRES
Hesen *said that* ***he*** *is rich.*

(Anand & Nevins 2004)

Can this be extended to our cases?

Existing analyses of indexicals

- They fail to capture the data:
  - **Context shifting** overgenerates

Hypothesis: manipulation of character (in Kaplan's terms)

- **character copy** in ellipsis

(3) i. *(Romeo to Juliet)* "I love you"
ii. *(Juliet to Romeo)* **"I do too".** **$\lambda c.\ \lambda x.\ x$ love a_c**

- **quantification over character** in *only*-constructions

(6) *(Tom to Sue, in a ballroom dancing class)*
"Only I make you swirl". **$\lambda c.\ s_c$ make a_c swirl**

Existing analyses of indexicals

- They fail to capture the data:
  - **Context shifting** overgenerates

But character manipulation **overgenerates**:

(9) i. *(Juliet to Romeo)* "I love you". ~~**λc. λx. x love a_c**~~

ii. *(Romeo to Juliet)* "Count Pâris does too".

[12%] ***Count Pâris does love you [i.e. Juliet] too.**

(10) i. *(Romeo to Juliet)* "Count Pâris loves you". ~~**λc. λx. x love a_c**~~

ii. *(Juliet to Romeo)* "Rosaline does not".

[11%] ***Rosaline does not love you [i.e. Romeo]).**

Note: (9) and (10) also show that hypothesizing strict phonological identity conditions (copy of the exact same words in the ellipsis site) overgenerates too.

Existing analyses of indexicals

- They fail to capture the data:
  - **Context shifting** overgenerates

But character manipulation **overgenerates**:

(11) *(Tom on the phone with friends living in different cities)*

Only **I** like it **here**. **~~λc. s_c like l_c~~**

[44%] ***None of Tom's friends like the city where they live.**

[Existing analyses of indexicals]

- They fail to capture the data:
  - **Context shifting** overgenerates

Character manipulation **overgenerates**.

Indexical abstraction operators (Cable 2005, Kratzer 2009) **undergenerate**:
each operator only manipulates one parameter (speaker or addressee).

$[[\ \lambda s.\ [XP\ \ldots t_s \ldots]]]^{<s, a, w>, w, g} = \lambda x.[[\ [XP\ \ldots t_s \ldots]\ ]]^{<x, a, w>, w, g}$

$[[\ \lambda a.\ [XP\ \ldots t_a \ldots]]]^{<s, a, w>, w, g} = \lambda x.[[\ [XP\ \ldots t_a \ldots]\ ]]^{<s, x, w>, w, g}$

Existing analyses of indexicals

- They fail to capture the data:
  - **Complex focus** over- and undergenerates

Complex focus?

(6) *(Tom to Sue, in a ballroom dancing class)*
"Only I_F make you_F swirl".

(12) John **only** introduced **$Bill_F$** to **Sue_F.** (Krifka 1991: 21)

You does not have to be focused.

(13) Seul moi **te** fais tourner. [French]
Only I **you_CL** make swirl
Only I make you swirl. (supersloppy, strict)

[Existing analyses of indexicals]

- They fail to capture the data:
  - **Complex focus** over- and undergenerates

Cf. *vice versa* clefts (Hedberg 2013)

(14) "Anna: So, what's the case you're working on?
Robert: Nothing I need bother you with now. **It's YOU who called ME**, remember?"
[General Hospital, ABC, 6/21/89]

Proposal

- **Dependency** between speaker and addressee
  - *I* and *you* can be **descriptions** (e-type pronouns)

    You = my interlocutor
    I = your interlocutor

  - *I* and *you* can **bind each other**

    Cf. bound readings of *I/you*

Proposal: Ingredient 1
I and *you* can be bound variables

- **C-command requirement**

(15) i. *(Romeo to Juliet)* "The man I hate loves you".
ii. *(Juliet to Romeo)* "The woman I hate does not".
([27%] *love you)

- **Supersloppy** readings arise in the same environments as **bound readings** of *I/you*: **ellipsis, focus**

→ focus somehow licenses binding of indexicals

I and *you* can be bound variables

- Presuppositional and multidimensional approach
  - ***Phi*-features** are **presupposition triggers**
    (Heim & Kratzer 1998, Schlenker 2003, Heim 2008)

    $[\![\text{me}_i]\!]^{c,w,g} = g(i)$ presupposition: $g(i) = s_c$
    $[\![\text{you}_i]\!]^{c,w,g} = g(i)$ presupposition: $g(i) = a_c$

  - ***Phi*-features** are **disregarded in focus alternatives**
    (Heim 2008b, Jacobson 2012, Sauerland 2013)

    (1) **Only I** did **my** homework.
    VP in focus alternatives: **λx. x did x's homework.**

    (16) **Johnny** did his homework, but **I** didn't. *(Heim 2008b:45)*
    Elided VP: **λx. x did x's homework.**

Proposal: Ingredient 2
I and *you* as e-type pronouns

- **E-type pronouns**
  (Evans 1977, Cooper 1979, Heim 1990, Heim & Kratzer 1998, Elbourne 2001, a.o.)

(17) a. **Every host** bought just one bottle of wine and served **it** with the dessert. *(Heim & Kratzer 1998: 290)*

b. *it* = the bottle **he** bought

$[\![\text{it}]\!]^{c,w,g}$ = the **R pro**

free function $R_{<e, et>}$ = λx.λy.y is a bottle that x bought

I and *you* as e-type pronouns

- ***I*** and ***you*** as **specific e-type pronouns**

(3) i. "I love you" you = my interlocutor
ii. "I do too".

→ **I** love **my** interlocutor

(5) i. "You don't understand me". me = your interlocutor
ii. "You don't either".

→ **You** don't understand **your** interlocutor

I and *you* as e-type pronouns

- ***I*** and ***you*** as **specific e-type pronouns**

  Idempotent function F relates the two discourse participants speaker and addressee: **F = {<s, a>, <a, s>} "interlocutor"**

(3) i. "I love you"
ii. "I do too". **λx. x love F(x)**

[[you]]^{c,w,g} = [[F(s)]]^{c,w,g} = a *you*: "my interlocutor"

(5) i. "You don't understand me".
ii. "You don't either". **λx. x understand F(x)**

[[I]]^{c,w,g} = [[F(a)]]^{c,w,g} = s *I*: "your interlocutor"

I and *you* as e-type pronouns

- ***I*** and ***you*** as **specific e-type pronouns**

  Range restriction of F: **discourse participants**
  → specific dependency between *I* and *you*

(9) i. "I love you".
ii. "**He** does too (*love you/*love his interlocutor)." **~~λx. x love F(x)~~**

(10) i. "**He** loves you". **~~λx. x love F(x)~~**
ii. "She does not (*love you/*love her interlocutor)"

(18) **Only Tom** makes **you** swirl. **~~λx. x make F(x) swirl~~**
*The other dancers don't make their partner swirl.

(6) Only **I** made **you** swirl. **Nobody else** did (*make his partner swirl).
vs. Only **I** did **my** homework. **Nobody else** did (do his homework).

[*I* and *you* as e-type pronouns]

- ***I*** and ***you*** as **specific e-type pronouns**

  Range restriction of F: **discourse participants**
  → specific dependency between *I* and *you*

Cf. Regular e-type construals are not available for *I* and *you*:

(19) *[Context: the speaker is Michael's spouse]*
***** This year everyone was supposed to bring **their spouse**, but only MICHAEL brought **me** (~~his spouse~~).

(Jacobson 2012: 34)

[*I* and *you* as e-type pronouns]

- ***I*** and ***you*** as **specific e-type pronouns**

  Range restriction of F: **discourse participants**
  → **reciprocity** between *I* and *you*

(20) [60%] **I** saw **you** before **you** did (see **me**). **λx. x see F(x)**

(21) (?) **I** love **you** more than **you** do (love **me**). **λx. x love F(x)**

Cf. Wechsler (2010): analysis of *I* and *you* as semantic mirror-images for speaker and hearer

I and *you* as e-type pronouns

- ***I*** and ***you*** as **specific e-type pronouns**
  F can be pragmatically defined

  - Default: **interlocutor**

(3) i. "I love you". **λx. x love F(x)**
ii. "I do too (love **my interlocutor**)".

I and *you* as e-type pronouns

- ***I*** and ***you*** as **specific e-type pronouns**
  F can be pragmatically defined

  - Other **contextually salient relations**

  (6) "Only I make you swirl". **λx. x make F(x) swirl**
  Nobody else makes **his dance partner** swirl.

Note: given the range restriction of F (discourse participants), this implies that focus alternatives can be evaluated with respect to different contexts (unless *you* is focused too).

- Cf. ***I*** and ***you*** as **descriptions** (Nunberg 1993, Stokke 2010)

  (22) *Condemned prisoner*: **I** am traditionally granted a last wish.

  (23) *Chess teacher giving instructions to a student who has just played 4.NxP*
  According to all the textbooks, **you** often get in trouble with that move.

Conclusion

- ***I*** and ***you*** are **intrinsically related** by a lexically available function F ("interlocutor"or contextual relation)
  → availability of functional representations of *I* and *you*
  → availability of reciprocal binding of *I* and *you*
  → availability of supersloppy readings

- This is a further argument **against the Fixity Thesis**: an indexical is not necessarily directly dependent on the context, but can depend on another indexical.

- The two context parameters speaker and addressee are not independent.
  → grammatical structure of context?

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